Dart Athwart the Mountain Torrents:
The Introduction of Brown Trout to New Zealand

Jack Kós

A thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy in History at the University of Otago, Dunedin
2017
ABSTRACT

From the mid-1860s onwards, British settlers introduced brown trout to New Zealand in an attempt to recreate aspects of Britain, to improve upon New Zealand’s existing resources and to realise their own social aspirations. These introductions were primarily facilitated by organised acclimatisation societies, based upon a British model, located in urban and country centres around New Zealand. Acclimatisation societies received almost unanimous support from the Pākehā populace, particularly with regard to the introduction of British fish, and their every action was reported in detail in local newspapers. Following the first introduction of brown trout, from Tasmania to Canterbury in 1867, societies established breeding facilities and propagated and distributed trout throughout New Zealand. Within ten years brown trout were established in New Zealand sufficiently that settlers were able to fish for trout some 22,000km from their native range. Today they are one of New Zealand’s most popular recreational species and a major source of international tourism.

This thesis examines the introduction of brown trout to New Zealand, while situating it in its colonial context and in the environmental ethos of the nineteenth-century. Through constructing an in-depth narrative history of the introduction of trout to the major regions of New Zealand, subtle regional, ethnic, religious and environmental differences come to light. Though some ethno-religious differences are present, environmental conditions between the regions prove by far the most significant cause of difference. This study demonstrates that the introduction of brown trout is inherently linked to the British colonisation of New Zealand, and that trout played the roles of both a product and an agent of colonisation. The colonial connection is affirmed by transnational comparisons with Australia and the United States of America. This thesis further establishes that the introduction of brown trout was a part of the same movement that resulted in the wider environmental transformation of New Zealand in the nineteenth-century to improve the environment and render it more productive for British settlers. In making this argument, the history of the introduction of brown trout provides a greater understanding of New Zealand’s broader environmental history.
This thesis further provides historical context to the scientific assessments of the ecological impacts of brown trout, particularly with regard to their displacement of native freshwater species. Many of these species were important food sources for Māori and in this capacity the introduction of brown trout provides insight into the Māori-Pākehā dynamic regarding resource management and fishing. In particular, the imposition of regulatory conditions on trout fishing highlights a fundamental dichotomy between Māori and Pākehā. This thesis establishes an argument for viewing brown trout as a part of the colonial machinery that resulted in Māori alienation from their lands and resources. Finally, this study demonstrates that British settlers prioritised introduced species over native species through legislation, the intentional destruction of native species, and a systematic transformation of the environment that favoured introduced species. This prioritisation is informed by the Eurocentric belief of settlers that their familiar species were inherently superior to New Zealand’s native species. These practices stand in direct contrast to the value modern society attributes to native species, and are testament to the transition in environmental philosophy that has taken place in the past 150 years.
# TABLE OF CONTENTS

Abstract ........................................................................................................................................ iii
Abbreviations .............................................................................................................................. vi
List of Figures ............................................................................................................................... vii
Acknowledgements ..................................................................................................................... viii

Introduction ................................................................................................................................... 1
Chapter One: Literature Review ................................................................................................. 13
Chapter Two: The Introduction of Brown Trout to Tasmania ...................................................... 45
Chapter Three: The Introduction of Brown Trout to Canterbury ................................................. 59
Chapter Four: The Introduction of Brown Trout to Otago ........................................................... 93
Chapter Five: The Introduction of Brown Trout to Wellington .................................................. 127
Chapter Six: The Introduction of Brown Trout to Auckland ....................................................... 159
Chapter Seven: Trout and Māori ............................................................................................... 191
Chapter Eight: The Prioritisation of Introduced Species ............................................................ 219
Chapter Nine: Trout and Empire ................................................................................................. 253
Conclusion .................................................................................................................................... 289

Bibliography ................................................................................................................................. 299
ABBREVIATIONS\(^1\)

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAS</td>
<td>Auckland Acclimatisation Society</td>
</tr>
<tr>
<td>CAS</td>
<td>Canterbury Acclimatisation Society</td>
</tr>
<tr>
<td>LAS</td>
<td>Lakes District Acclimatisation Society</td>
</tr>
<tr>
<td>OAS</td>
<td>Otago Acclimatisation Society</td>
</tr>
<tr>
<td>OBAS</td>
<td>Oamaru Branch Acclimatisation Society</td>
</tr>
<tr>
<td>SAS</td>
<td>Southland Acclimatisation Society</td>
</tr>
<tr>
<td>WaAS</td>
<td>Wairarapa Acclimatisation Society</td>
</tr>
<tr>
<td>WAS</td>
<td>Wellington Acclimatisation Society</td>
</tr>
</tbody>
</table>

\(^1\) Abbreviations are only used within the applicable region because of the necessary repetition. So Canterbury Acclimatisation Society is abbreviated to CAS in the chapter pertaining to Canterbury. Elsewhere the full name of the society is used.
LIST OF FIGURES

Fig. 1 Early New Zealand whalers ‘exercising their dominion’, c.1860
Fig. 2 Otago Landscape depicting ‘man-made Colonial Arcady’, 1870
Fig. 3 Iconic New Zealand tourism poster, 1936
Fig. 4 Hobart Town, 1866
Fig. 5 The Sailing Ship Norfolk, n.d.
Fig. 6 The Salmon Ponds at Plenty, n.d.
Fig. 7 Christchurch, 1854
Fig. 8 Map of the CAS grounds, 1913
Fig. 9 Brown trout centenary stamp, 1967
Fig. 10 Plaque marking the site of the original CAS hatchery, 2013
Fig. 11 Provincial distribution of trout by CAS, 1868-1873
Fig. 12 The fish ponds in the acclimatisation gardens, Christchurch, 1907
Fig. 13 Andrew Johnson's establishment at Opawa, c.1900
Fig. 14 Dunedin, 1862
Fig. 15 OAS Grounds, 1868
Fig. 16 The Free Trader, wrecked in 1894
Fig. 17 The last take of the season, 1895
Fig. 18 A big turnout to see the netting of trout in the Water of Leith, 1909
Fig. 19 Wellington, 1858
Fig. 20 Wellington Botanical Gardens, site of the WAS grounds, 1893
Fig. 21 Example of a wooden box used to transport salmon and trout ova, c.1860s
Fig. 22 A favourite reach of the Hutt River, near Wellington, 1907
Fig. 23 Releasing trout fingerlings, Taranaki
Fig. 24 The WAS facilities at Masterton, 1908
Fig. 25 Auckland, 1864
Fig. 26 View from the Auckland Domain, 1866
Fig. 27 Female trout, (Salmo fario), 1881
Fig. 28 The progeny of the Auckland rainbow trout, 1928
Fig. 29 Trout fishing came to be a popular pursuit in Auckland, 1934
Fig. 30 Hinaki, c.1890-1930
Fig. 31 Lamprey weir, Whanganui River, c.1856-1889
Fig. 32 Fishing for Kokopu, 1913
Fig. 33 A Māori angler at Rotorua, 1905
Fig. 34 Bringing rainbow trout to the kainga, 1905
Fig. 35 Māori anglers, 1910
Fig. 36 Charles Darwin at approximately the time he visited New Zealand, c.1835
Fig. 37 Kea hunting, c.1930s
Fig. 38 Two men holding shags, c.1940s
Fig. 39 Shag hunting at Shag Cove, Pelorus Sound, 1906
Fig. 40 To illustrate paper on the drainage of the Remuera swamp, 1869
Fig. 41 Changing views of the value of native birds, 1959
Fig. 42 New Zealand Company poster, 1848
Fig. 43 Victorian Acclimatisation Society grounds, Melbourne, 1873-1882
Fig. 44 Scottish emigration poster, 1884
Fig. 45 The acclimatisation society want to prevent fishing for trout with worm bait, 1906
ACKNOWLEDGEMENTS

Over the past three years my supervisors, Tom Brooking and John Stenhouse, have given me sage advice, space to roam and the intellectual kick up the butt I needed to get to this point. John’s communications tended to comprise one-quarter thesis critique and three-quarters fly fishing queries, but I can’t say I minded. Discussions with Tom stayed on topic longer, although tended to deviate towards the merits of various breweries by the end. I’m particularly thankful to Tom for the speed with which he edited my work in the last few months. We made a good team. His oft-repeated words, first said to him by his dad during his PhD, will forever ring through my head: ‘Just finish the bloody thing.’

Archivists and librarians all around New Zealand and in Tasmania assisted my research immensely. Without their help navigating the maze of series’, records and other categories, my research would have been a far more drawn out process. Paul Corliss, a kindred trout historian, gave assistance locating sources as well as providing copies of his own work. Harvey Buckley kindly offered his professional services as an editor because of a genuine curiosity in the topic.

I want to thank the New Zealand fly fishing community generally for giving this thesis a sense of purpose. Three years is a long time to think about just one subject, but the constant interest I’ve received in both my thesis and the documentary that accompanies it has been a source of huge encouragement. To me history is not something that should be contained in the academic world, but something that should be applied and communicated as widely as possibly. To that end I thank my friend Ben Pierce, a filmmaker from Montana, his wife, Christine Marozick, and my partner, Morgan Beavers, for spending a month trekking around the South Island with me filming ‘The Introduction: New Zealand’s Brown Trout Story.’ Hills were climbed, beers were drunk and a damn good time was had all round. I feel immense pride looking back at what we produced and knowing that it will communicate this research far and wide.
For a period I thought having a girlfriend living in Wyoming, and the visits that entailed, couldn’t possibly be conducive to completing my thesis. Sure, I didn’t hate hanging out in a log cabin by a river, foraging for morel mushrooms, drinking the local craft beer or catching native cutthroat trout in the Wind River Range. But it did make me wonder slightly when I would actually finish the thing. However, in the past few months, as my writing reached its frenzied crescendo back in New Zealand, I turned to Morgan on a daily basis for moments of calm and laughter amidst the chaos. She has been a source of support, love, encouragement and much needed distraction.

This project has been the combination of a passion for fly fishing intersecting with a curiosity about the past. My parents have nurtured and encouraged my passions and curiosities for twenty eight years and I want to thank them above all others. A law degree is apparently a condition of entry into our family and when I decided not to pursue a legal career after completing the degree I wondered how this impacted the status of my membership. Would I still be invited to Christmas? Four years later and my parents have kept true to their words: ‘it doesn’t matter what you do, just do it well.’ My mother, Jocelyn, provided fantastic and detailed edits, truly above and beyond, despite not having even a passing interest in trout. Lastly, to my father, Stephen, for sharing with me his love of history and placing that first fly rod in my hand. I imagine there was a time when you must have worried fly fishing was going to be a barrier to my academic success. Hopefully this thesis proves the opposite is true.
Introduction

Central argument

This thesis seeks to establish that the introduction of brown trout (*Salmo trutta*) to New Zealand is inseparably linked to the British colonisation of New Zealand and, on a wider level, to the imperial expansion of Britain. This is not just the history of a fish, but a history of New Zealand’s environment and the way humans have influenced it and shaped it to fit their design. Thus, this thesis also seeks to demonstrate that the introduction of brown trout to New Zealand is consistent with a number of wider themes in New Zealand’s environmental history: most significantly, improvement and the re-creation of Britain. Accordingly, this thesis will demonstrate that brown trout were introduced to New Zealand on the overt basis that they would improve New Zealand’s environment and the lifestyle of settlers. Similarly, it will establish that their introduction was directly linked to a desire to recreate ‘home’ and the recreational opportunities of Britain in New Zealand. I also seek to demonstrate that introduced species, including trout, were deliberately prioritised over many native species through legislation, intentional destruction and a fundamental belief in the innate superiority of British species. More significantly, I argue that in many instances introduced species were prioritised over the rights of Māori, and that the introduction of trout to New Zealand should be seen as part of the colonial machine that alienated Māori from their lands and resources. This thesis will also demonstrate the intrinsic connection between the introduction of trout and the imperial expansion of Britain by establishing that Alfred Crosby’s concept of ecological imperialism is still relevant today. Finally, I argue that environmental factors beyond the control of settlers played a critical role in the introduction of brown trout to New Zealand.

In order to prove my arguments, I will be focusing on a number of specific questions. Firstly, how, where and when were trout introduced to New Zealand? This question is perhaps the most fundamental, as such research has never been undertaken with this level of detail and scrutiny. Before conducting the analysis that establishes my arguments, a national narrative of the introduction must be produced. It is the groundwork upon which analysis is built. Beyond this, it is simply a fascinating story

---

1 Both themes also affirm the inherent connection between the introduction of trout to New Zealand and the British colonisation of New Zealand.
that carries with it significant public interest, both from within New Zealand and abroad. Secondly, why were trout introduced to New Zealand? To introduce trout was not a simple venture but one that required planning, financial commitment and the construction of significant infrastructure. This question, therefore, seeks to address the social, environmental and philosophical motivations behind the introduction of trout to New Zealand. Thirdly, what impact did the introduction of trout have? In this I am not intending to address the ecological impacts, other than their broader implications, but to focus on the social and cultural impacts of the introduction of trout, and other species, on colonists, native species and Māori. Finally, did the introduction of trout to New Zealand accord with Alfred Crosby’s ecological imperialism? Ecological imperialism, as an idea, has been a focal point in my research for the past five years and its applicability to the introduction of trout to New Zealand sheds significant light on a number of broad themes in New Zealand’s environmental and colonial history.

This thesis interweaves a number of different historical themes and approaches. First and foremost, it is an environmental history. As an environmental historian, I seek to contextualise the introduction of brown trout within the wider environmental transformation of New Zealand in the nineteenth century. This environmental change cannot be separated from British colonisation and imperial expansion more broadly, and accordingly colonisation, migration and imperial history all feature strongly. These themes are further considered in an international context, through an examination of acclimatisation in Australia and North America, bringing in a transnational component to this study. Understanding the environmental transformation also necessitates aspects of social and intellectual history in order to comprehend the motivations that informed the transformation. Intertwined throughout this piece, and forming a valuable theme, is the colonial-indigenous dynamic, both with regard to Māori and to New Zealand’s indigenous flora and fauna. Thus, there is an element of indigenous history, centred on indigenous resource management. Because I have adopted a regional approach in addressing the introduction of trout, it is also a regional history that demonstrates subtle regional differences within New Zealand. Finally, this work has a cultural history component, as it briefly touches upon the culture of trout fishing that emerged in late nineteenth-century New Zealand.
Context to the introduction of brown trout

The brown trout is a salmonid species of fish native to Europe, as well as parts of North Africa and the Middle East, that have long been viewed as a valuable sporting and table fish in their native range.\(^2\) New Zealand’s rivers and lakes, whilst possessing numerous native fish, have no native salmonids or comparable species.\(^3\) And yet today scarcely a waterway exists in New Zealand that is not, or at least was not at one stage, home to brown trout.\(^4\) Over the course of the 150 years since their introduction in 1867, they have played a significant role in shaping not only New Zealand’s environment, but also aspects of its sporting culture. Brown trout have become a valuable source of recreation and food for local anglers and the centrepiece of a significant international tourism industry, with thousands of anglers flocking to New Zealand each year to pit their skills against the wily fish. Furthermore, for early colonists they represented both a strong connection to ‘home’ and also to the very lifestyle that many settlers left Britain hoping to enjoy in New Zealand. Yet one very simple question remains: how did they get here? Travel by sea was the only option between New Zealand and Britain in the nineteenth-century and, in order to deliver trout ova, a ship would have to travel over 22,000km, across both tropics, in an age before refrigerated transportation.\(^5\) Coupled with the sheer distance, trout are notoriously susceptible to changes in water temperature as would occur when travelling with unrefrigerated shipping through tropical zones. Finally, upon their arrival there was no guarantee that the rivers and lakes of New Zealand would provide suitable habitats for brown trout.\(^6\)

British settlers seeking the introduction of brown trout had a distinctly uphill battle on their hands and one that they did not even know was feasible until trout were successfully introduced to Tasmania, from Britain, in 1864. Despite the impediments,

\(^2\) In the original source material brown trout are referred to as trout, sea trout, salmon trout, Scotch burn trout, loch leven trout and a number of other less frequent terms. Scientific thought in the nineteenth-century incorrectly divided brown trout into a vast number of sub-species based on behavior, location or environmentally induced appearances. These are now believed to all be *Salmo trutta*.

\(^3\) The most comparable was the upokororo (*Prototroctes oxyrhynchus*), although this was more similar to the European grayling (*Thymallus thymallus*) than to trout (hence its Pākehā name – New Zealand grayling).

\(^4\) Some small nod must be given to the disappearing rivers of New Zealand’s east coast; In using the term waterway I refer not specifically to navigable waterways, but rather to any body of fresh water.

\(^5\) The first ice-making machine was only invented in 1854, before which the entire enterprise of shipping ova to New Zealand or Australia would have been impossible.

\(^6\) Although settlers never doubted that New Zealand’s rivers were appropriate for trout, frequently referring to them as ideal trout streams even before trout arrived.
from the moment British colonists landed in New Zealand they possessed a desire to introduce brown trout. Following the Treaty of Waitangi in 1840, and particularly in the wake of the organised settlements of Wellington, Nelson, Christchurch and Dunedin, New Zealand’s settler society began to gain structure and definition. The desire for trout did not supplant these colonists’ need for the basic necessities of life - shelter, food and security - but once these were attained the notion of bringing trout to New Zealand quickly began to gain traction. Linked to this was the advent of the acclimatisation movement, starting in France and spreading through Britain, and onwards to the colonies of New Zealand and Australia. Acclimatisation societies sought to exchange and naturalize beneficial species, typically from Britain, into new regions so as to supplement the indigenous flora and fauna of the area. To colonists, the rivers and lakes of New Zealand, whilst beautiful, seemed barren; devoid of fish to which they could relate, let alone catch on rod and reel and eat for breakfast. Trout were seen as such a desirable addition to New Zealand’s environment that the New Zealand Company’s Canterbury Settlement offered a medal to anyone who could introduce trout to New Zealand, whilst the Otago Provincial Government offered a £250 reward. By the mid-1860s, with increasingly structured societies and the influence of the international acclimatisation movement, the climate for introducing trout to New Zealand was at its peak. It was at this point that the fascinating story of how brown trout were brought to New Zealand began.

**Historiography**

The historiography of the introduction of brown trout to New Zealand is minimal at best. Given the societal interest within New Zealand in trout, fishing and environmental history, it is surprising there is so little research on the topic. This is rendered more surprising by the fact that the introduction of trout typifies a number of key themes in environmental history and is referenced in a number of works with regard to the improvement of New Zealand’s environment and the re-creation of Britain. The lack of secondary material directly on the introduction of trout is, therefore, inconsistent with both the interest in the topic as well as its value as a case study in New Zealand environmental history. This is addressed in greater detail in Chapter One, but it is briefly worth acknowledging that prior to this research there

---

was no substantial work on the introduction of brown trout to New Zealand. One Masters thesis has been written on the introduction of trout to Wellington and trout are addressed on a national level to varying extents in a group of books focusing on introduced species and acclimatisation more generally.\(^8\) Beyond this, there are a number of works that, whilst not addressing trout, are thematically similar and provide useful points of comparison.\(^9\)

Overall, however, the most striking aspect of the historiography is the absence of detailed and substantial scholarship, particularly given the plethora of primary source material.\(^10\) The lack of detail can be explained in part by the fact that the nineteenth-century newspapers, which have provided the depth of my research, were only digitised and made searchable, in 2001.\(^11\) However, there have been a number of works since then that could have made greater use of this resource. The lack of research on the introduction of brown trout to New Zealand accords with an international trend in environmental history. Imperial historian John MacKenzie states: ‘In all my reading and editing in this field [environmental history]… I have noted the relative scarcity of marine and riverine studies, of various forms of fishing and collecting…’\(^12\) This research directly fits within the gap in historical writing that

---


\(^11\) Not all newspapers were available from the start either, as the online archive is constantly being updated. It should also be noted that newspapers were readily available before this point, but conducting thorough newspaper research became a much more straightforward task from 2001 onwards.

MacKenzie identifies, as it is a history of fish, fishing and of New Zealand’s rivers and fresh water. The broader historiography will be outlined in far greater detail in Chapter One; however, it is important to state at the outset that this is a truly novel history unearthing information we simply did not know previously. That alone establishes its value.

**Methodology**

In undertaking this research, I have divided the project into two portions. Chapters Two to Six take a regional approach and depict the narrative history of particular regions between 1850 and 1890. Analysis is interwoven throughout these chapters, but not to the extent found in subsequent chapters. Chapters One and Seven to Nine are overtly analytical, and deal with broader themes and topics. Because these chapters address broader topics, the time frame upon which they are focused is extended to include material from earlier than 1850 and after 1890 in order to adequately cover the factors that influenced the introduction of brown trout as well as the implications of the introduction. Dividing the research in this manner permits me to do two things; firstly, simply to tell the story of the introduction of brown trout to New Zealand in an unprecedentedly thorough and comprehensive manner; and, secondly, to use the narrative regional chapters as the petri dish for the information and inferences that form the basis of my analytical chapters. This approach is reflective of the concept that philosopher Gilbert Ryle, and subsequently anthropologist Clifford Geertz, referred to as ‘thick description,’ which establishes the value of detailed and contextualised description for conducting subsequent analysis. The analytical chapters are directly informed by the research undertaken in Chapters Two to Six and, but for the depth of this research and the contrasts derived from the regional approach, many of my conclusions could not have been reached. I have also made use of visual sources where possible; however, because of the scarcity of images from the time of my research, many of the images are illustrative rather than

---

13 For practical reasons centred on the volume of primary research required to write about a region not every single region within New Zealand is addressed in this study. The regions most responsible for the introduction of trout to New Zealand, as well as providing the greatest scope for social, cultural and environmental analysis, have all been addressed. Nelson, Hawke’s Bay, Taranaki and the West Coast have been omitted and referenced only with regard to the receipt of ova from one of the regions canvassed.


15 Take, for instance, the subtle Scottish characteristic to the introduction of trout and the establishment of a trout fishing season in Otago.
relating to the exact period and people I am writing about. The cityscapes, in particular, establish just how early in the development of New Zealand society trout were introduced.

The historiography and Chapter One establish that there is very little directly applicable secondary material on the introduction of brown trout to New Zealand. Accordingly, the vast majority of my research is focused upon primary sources. This ensures an extremely thorough approach and, perhaps more importantly, contextualises the introductions within their own time period more effectively than if I was reliant on secondary sources. In undertaking this project, I believed archival material would be my most significant primary source. The annual reports of acclimatisation societies, as well as other records, are housed in various archives around the country and provide an important resource in writing this history.\textsuperscript{16} However, as a result of the extent of information contained in newspapers, archival material has been a less critical resource than anticipated. It substantiates the oftentimes more informal information contained within the newspapers but does not contain the same depth of information.

Nineteenth-century newspapers have provided an absolute wealth of information as well as a feel for the settler society that introduced brown trout to New Zealand. Towards the end of my period of research, in 1885, New Zealand had 187 newspapers registered with the Post Office, covering almost every inch of the country.\textsuperscript{17} It must be acknowledged that these newspapers were particularly prone to political bias,


which was capable of limiting their value as source material. However, because there was a broad consensus across Pākehā society on the benefits of introducing trout to New Zealand the political bias of newspapers does not impact my research. Papers Past, a government funded online newspaper archive, contains digitised copies of 131 New Zealand newspapers published between 1839 and 1949. Whilst not every newspaper in circulation in the nineteenth-century is contained in this repository, the majority of them are represented and especially the critical newspapers from major centres. Most importantly, these newspapers have been processed with optical text recognition software and the body of the text, as opposed to just the title of the article, is searchable. Given that the quality of the original print is variable, this system does produce occasional errors, where words such as “front” are transcribed as “trout”, but overall it is accurate. In many ways, this is the only thing that has rendered the level of detailed research that I have conducted feasible, as even with the ability to limit my search results to relevant material I have still read over 67,000 newspaper articles. This has permitted the introduction of brown trout to New Zealand to be chronicled in astonishing detail, occasionally even down to the hour at which a supply of ova was received.

**Structure**

Chapter One of this thesis examines the existing literature on the subject and analyses both the motivations behind the introduction of trout to New Zealand, and the wider environmental transformation, as well as the zeitgeist that informed these actions. Because of the scarcity of literature on the specific topic of introducing trout to New Zealand, a more thematic approach has been taken that examines broader colonial and environmental themes. To begin with, the concept of nature and the ideas surrounding it in the nineteenth century are examined. Secondly, the notion of recreating ‘home’

---

20 For reference, the total number of articles across all newspapers in this period is 15 million. It would take several lifetimes to achieve the same level of detailed research without the ability to narrow down the search results.
21 During the period of my research Papers Past updated their website, and for a short period the digitized version of an article did not generate a page number. Thus there are a few newspaper citations that do not have an associated page number, however for these resources the page number is not critical in locating the source material.
and the role this played in the introduction of trout is analysed. Thirdly, the idea of ‘improvement’ and the belief amongst colonists that they had the right to improve the land is considered. Fourthly, the focus shifts to the transition from viewing actions such as the importation of a foreign species from improving the land to destroying it. Finally, a survey of the relevant primary and secondary sources and their various merits and limitations is conducted.

Chapter Two seeks to provide a brief overview of the introduction of trout to Tasmania so as to contextualize the subsequent introduction to New Zealand. This chapter will take a narrative form, and functions to provide comprehensive coverage of the story of the introduction of trout from Britain, through Tasmania, and all the way to New Zealand. Within Australia, Tasmania was seen as the environment most likely to ensure a successful introduction, and they were the first to successfully receive brown trout in 1864. This chapter will track the rising desire in Tasmania for trout, their subsequent introduction, and the establishment of a breeding population. Because it is simply meant to preface the New Zealand story, it will conclude in 1867, when trout were successfully sent to Canterbury. It also provides a point of international contrast between the introductions undertaken in New Zealand and Australia, from which national differences can be seen.

Chapters Three through Six are also narrative regional chapters and focus on the introduction of trout to the main regions of New Zealand: Canterbury (Chapter Three), Otago (Chapter Four), Wellington (Chapter Five) and Auckland (Chapter Six). Each chapter begins with a brief overview of the region, both geographic and social. Subsequently, the establishment of acclimatisation societies in each area is outlined, and the desire for trout that was evident through newspapers, poetry or a simple public demand in the region is discussed. The actual story of the introduction of trout is then told in detail, following each shipment of ova from its origin to the rearing ponds, tracking the hatching of trout, and then their subsequent distribution in local rivers. In Otago and Canterbury, and much later Wellington, the establishment of a breeding facility, removing dependence on Tasmania and permitting intra-New Zealand distribution, is also detailed. Through this narrative regional approach of first

---

22 Introductions from Tasmania continued long after 1867, but the value of reporting on each one diminishes significantly.
establishing the facts in detail, the subtleties and nuances of each region will be apparent and comparisons between the regions can be made. Did, for instance, Canterbury’s largely English and Anglican populace impact their approach to introducing trout as compared to Scottish Presbyterian Otago? How did the significantly different geography and environment influence both the process by which trout were introduced and the eventual success of the introduced fish? By facilitating analysis such as this, the narrative chapters take on far greater significance as they go further than simply narrating the introduction and become substantial regional and environmental histories.

Chapter Seven will examine the relationship between Māori and trout, as well as the impacts that the introduction of trout have had on Māori. The overall intent of this chapter is to consider the extent to which the introduction of trout alienated Māori from their waterways and resources. Firstly, the significance to Māori of the waterways that brown trout came to live in is outlined. This examination focuses on food, but also addresses ancestry and spiritual connections to fresh water. This establishes, amongst other things, that, contrary to colonial belief, New Zealand’s fresh water was not barren and had been a major food source for Māori for centuries. Following from this, Māori reaction to, and involvement with, the introduction of brown trout to New Zealand is outlined. In particular, attention is given to instances where Māori opposed the introduction of trout to New Zealand. Next, the actual impact of introducing trout to New Zealand on Māori is considered. The most pertinent factor was the displacement of customary resources, but more subtle impacts are also considered. Finally, the extent to which Māori became trout anglers, legal and otherwise, is outlined. This serves to demonstrate a fundamental Māori-Pākehā dichotomy with regard to trout, and fishing more generally.

Chapter Eight provides an analysis of the prioritisation of introduced species over native species in nineteenth-century New Zealand using the introduction of trout as a case study. Given the value attributed to trout, and the effort that was undertaken to attain them, it is unsurprising that colonists went to great lengths to ensure their successful establishment in New Zealand. This chapter commences by setting out the settlers’ belief that British species were inherently superior to New Zealand’s indigenous flora and fauna, as well as explaining its philosophical grounding. This
mind-set legitimised the settlers’ subsequent actions, and was fundamental to the prioritisation of introduced over native species. Subsequently, legislative prioritisation of introduced species will be set out with a focus on a number of significant Acts. Next, the intentional destruction of indigenous species to protect introduced species is analysed. Many of these programmes were implemented on a governmental level, and stand in stark contrast to our modern preservationist approach to native species. Following from this, the systematic prioritisation of introduced species over native species in nineteenth-century settler society is demonstrated. This practice establishes the prioritisation of introduced species, including brown trout, as part of the far wider movement of environmental transformation that took place. Briefly, consideration is also given as to whether introduced species were prioritised over Māori as a part of this transformation of New Zealand’s environment. Finally, the place of introduced species in New Zealand today will be debated and the shift in public perception towards preserving our indigenous environment set out.  

Chapter Nine centres on the relationship between brown trout and the British Empire. This chapter forms the crux of my argument that the introduction of brown trout is fundamentally linked to the British colonisation of New Zealand and sets out a case for viewing brown trout as both a product and an agent of colonisation. Particular focus is also given to providing a thorough critique of Alfred Crosby’s ecological imperialism. By applying his framework to the specific case study of the introduction of trout to New Zealand ecological imperialism is shown to still be a compelling theory, albeit requiring some light modification. This chapter also provides a transnational comparison of the acclimatisation movement and the introduction of trout in New Zealand, Australia and the United States, as well as a brief comparison with the gardening movement in New Zealand. This analysis places the introduction of trout firmly in their colonial context by demonstrating the commonalities between Australia and New Zealand; however, it also underlines how significant environmental factors were. Subsequently, ethnic differences in the introduction of brown trout, elucidated from the regional chapters, are discussed. Through this examination, it is shown that the ethnic differences that did eventuate were subtle and

---

23 See, for example, the weight given to the presence of the Giant Land Snail (*Powelliphanta patrickensis*) in opposing a mine operation on the Denniston Plateau.
paled in comparison to the environmental differences between the regions. Finally, this chapter considers to what extent the introduction of trout, and the subsequent accessibility of trout fishing, accorded with the egalitarian intent of British settlers. This demonstrates that, whilst trout fishing in New Zealand was far more egalitarian and accessible than in Britain, there were limitations to this access, particularly with regard to race.

These chapters depict the history of brown trout in New Zealand, from failed attempts at introduction through to the establishment of a population and its associated ramifications. But, by using the introduction of brown trout as a frame of reference, they also portray a history of the modification of New Zealand’s environment, the alienation of indigenous rights and resources, the destruction of native species and the very nature of the British colonisation of New Zealand. They provide an insight into the mind-set of the settlers that exercised influence at a formative period in New Zealand’s history. Most fundamentally, however, these chapters depict the inherent complexity of humanity’s relationship with the environment and the fact that our philosophies are not static. The brown trout, a European salmonid established in New Zealand some 18,000km from its native range, typifies this complexity and provides a fascinating lens through which to view New Zealand’s environmental history.
Chapter One: Literature Review

Introduction
New Zealand’s environmental history has been an increasingly popular topic of research in the past two decades, and yet research on the introduction of brown trout to New Zealand has largely been limited to brief prefaces in scientific work or included in hobby projects of anglers with a curious mind and an historical bent. Numerous environmental histories use the introduction of trout to New Zealand as a notable example of the acclimatisation movement, both in a positive and negative context, but no substantive academic attempt has been made to write the history of brown trout in New Zealand. Despite the lack of analysis, the introduction of trout typifies a number of themes central to New Zealand’s environmental and colonial history, explaining why they are so commonly referenced with regard to the environmental changes of the nineteenth-century. Accordingly, their introduction to New Zealand represents an extremely valuable research topic. Because of the lack of directly applicable literature, the focus of this literature review has been shifted to a thematic approach, which allows us to examine broad themes through a very specific lens and to test their applicability to the introduction of brown trout to New Zealand. These themes, and the way they manifested in the introduction of trout, also provide us with a clear picture of what motivated British settlers to go to such extreme lengths to introduce brown trout, amongst other animals, to New Zealand. By tracking these key and recurrent ideas a clear understanding of the period in which trout were introduced will emerge as well as the mind-set of those introducing them.

Firstly, the concept of nature in the nineteenth-century will be explored, with a particular emphasis on the position that British settlers believed they occupied within the natural world. This is especially significant given that the middle of the nineteenth-century was a point of philosophic flux, as religious constructions of a natural order of the world gave way to a more secular Darwinian approach. New Zealand historian Rollo Arnold makes an important point in stating: ‘Even the most expert historians are in constant danger of falling into anachronisms by reading a
present day understanding into a past situation. It is imperative that the context in which those persons taking part in the acclimatisation movement were acting is understood. Secondly, the idea of recreating Britain or ‘Home’ will be considered, and especially the ways in which Britain could be recreated in a more egalitarian fashion. This ties in to the third section, in which the notion of “improvement” or “progress” will be examined. The concept of improvement is one of the most formative ideas in shaping the environmental transformation of New Zealand and it is critical to understanding the actions of British settlers. Fourthly, the transition in the perception of acclimatisation from “improvement” to destruction shall be outlined. At this point, the chapter transitions into a more traditional literature review, surveying the relatively few secondary sources that do touch directly upon the introduction of trout to New Zealand, or those that are thematically similar. Finally, the primary sources that form the basis of my research will be discussed. These final two sections will demonstrate the significance and novelty of the research I am undertaking.

Nature in the nineteenth-century
The eighteenth and nineteenth-centuries saw immense development in the fields of natural history and ecology, greatly influencing humanity’s understanding of the natural world. The dominant European zeitgeist in the early nineteenth-century was, as British historian Keith Thomas in *Man and the Natural World* states: ‘that the world had been created for man’s sake and that other species were meant to be subordinated to his wishes and needs.’ Such an outlook stems in part from the work of Carl von Linné (Linnaeus), the pre-eminent eighteenth-century natural historian, whose Linnaean model echoed the platonic concept of a great chain of being in setting out a strict order or hierarchy of nature. As environmental historian Donald Worster in *Nature’s Economy* argued for this period: ‘Although they [man] are like any other species in living as subordinate parts of the divine order, humans at the same time occupy a special place of dignity and honour.’ Humans sat atop the mortal pack subordinate only to divine beings. Worster further noted: ‘Nature, it was

---

generally agreed, is an order expressive of God’s kindness toward his creatures, and especially toward man, for whom the creation primarily exists.’ This establishes not simply a right to subordinate the earth, but more significantly a suggestion that this was the natural order of the world.

Biblical justification for the perceived superiority of humanity is derived from Genesis 1:28, which states: ‘And God blessed them and God said to them, “Be fruitful and multiply, and replenish the earth, and subdue it; and have dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moveth upon the earth.”’6 This verse provides the foundation for the concept of ‘dominion theology’, which suggests humans had dominion over the natural world and all animals contained within it. As James Beattie and John Stenhouse argue in ‘Empire, Environment and Religion’: ‘Settlers environmental attitudes and practices cannot adequately be understood apart from the religious tradition they brought with them…’7 Whilst this may be difficult to comprehend in a modern, and increasingly secular, society, it is imperative to note that the philosophical traditions of the time were often theologically imbued. In nineteenth-century New Zealand, religious distinctions largely followed ethnic divisions, with the largest group being Anglican English settlers, followed by Scottish Presbyterians and Irish Catholics. The impact of ethnicity and religion on the introduction of trout to New Zealand is addressed in greater detail in Chapter Nine, although its influence was ultimately minimal. However, it is clear that Scottish Presbyterians exercised a significant role in the development of the conservation movement in New Zealand, demonstrating the potential influence of religion on humanity’s wider relationship with the natural world in nineteenth-century New Zealand.8

Environmental historian Thomas Dunlap, in *Nature and the English Diaspora*, observes that the Linnaean taxonomic code and Darwinian theories of evolution may seem archaic and outdated today, but: ‘Then [they were] the leading edge of European

---

5 Ibid, 44.
understanding, an immensely powerful intellectual tool that was as expansive as the visible world it shaped. It also, Dunlap further notes, ‘shaped the settlers’ understanding of nature…’ The introduction of trout to New Zealand must, therefore, be viewed in this context, rather than in a modern conservation or preservation-oriented mind-set. Thomas argues that: ‘Human civilization indeed was virtually synonymous with the conquest of nature.’ Running water, domesticated animals and crops, all markers of societal progression, necessitate some subjugation of nature in order to benefit people and the introduction of desirable exotic species is simply a continuation of this concept. Implicit in the conquest of nature was a belief in the robust infallibility of nature at the hands of people. As Worster asserts, referencing John Bruckner: ‘Apparently the web of life could withstand anything that a mere human might do, and might, indeed, even benefit from the stimulus of man’s aggressions.’ This establishes that many settlers acting in the nineteenth-century were not so much negligent in their actions, but believed on a more fundamental level that no harm could come from them. Hence, settlers could not only see no harm in introducing trout to New Zealand, but they in fact perceived it as their right to benefit from New Zealand’s environment (see Fig. 1). The rivers and lakes they encountered contained no fish they could relate to, and they exercised what they saw as a right and rectified this omission.

Fig. 1: Early New Zealand whalers ‘exercising their dominion’, c.1860

10 Ibid, 21.
11 Thomas, Man and the Natural World 25.
The idea of dominion over nature can be contrasted with Hawke’s Bay sheep farmer Herbert Guthrie-Smith’s subsequent twentieth-century views, expressed in his work *Tutira: The Story of a New Zealand Sheep Station*. Herein, he portrays humans not solely as the instigator of change but also ‘a beast of the field’ and very distinctly a more humble and equal part of nature.\(^{14}\) Guthrie-Smith’s views are more in keeping with an alternate nineteenth-century mind-set, the Arcadian outlook, which denoted a more harmonious existence with nature. Gilbert White’s *The Natural History of Selborne*, a book very much in the spirit of *Tutira*, observed the environment in a small English village across the course of White’s life.\(^{15}\) It takes a far more observational approach and does not conform to the notion that nature should be subservient to people. What is most interesting about White is that he was, by vocation, a vicar and his views represent a relatively dramatic departure from the established theology of the previous centuries. Worster considers the common outlook of Arcadians to be: ‘that man must learn to accommodate himself to the natural order rather than seek to overwhelm and transform it.’\(^{16}\) Following in the footsteps of White, the prominent nineteenth-century American naturalist, Henry David Thoreau, believed: ‘Either nature may be changed or man. Does it require to be improved by the hands of man or is man to live more naturally and so more safely.’\(^{17}\) The Arcadian perspective on the natural world far more closely echoes our current outlook, and traces of it can be seen in late nineteenth-century New Zealand. James Hector’s opposition to rampant deforestation and Thomas Potts’ campaign for the preservation of native birds and their habitats demonstrate that settler society was not uniform in its environmental ethos, but rather that there were substantially differing factions within it.\(^{18}\) Effectively, the wave of improvement and the inherent subjugation of nature were not a unanimous mind-set of settler society, but simply the dominant one. This division is explained by the fact that the mid-late nineteenth-century, the very time at which the acclimatisation movement was at its peak was a point of transition between the concepts of a subservient natural world and a more

\(^{14}\) Herbert Guthrie-Smith, *Tutira: The Story of a New Zealand Sheep Station*, (Wellington: Reed, 1970), preface.
\(^{16}\) Worster, *Nature’s Economy*, 76.
\(^{18}\) Young, *Our Islands, Our Selves*, 70-76.
unified twentieth-century outlook.\textsuperscript{19} In many ways it was a period caught between two epochs: notions of overt dominion over nature began to give way to a more integrated and accommodating approach in which people are not seen as distinct from nature.

The works of Charles Darwin fundamentally shifted humanity’s understanding of the processes of the natural world and in many ways represented the confluence of the two aforementioned philosophies. Worster notes there were two contradictory moral implications in Darwinism: ‘the mainstream Victorian ethic of domination over nature, and an emerging biocentric attitude that was rooted in Arcadian and Romantic values.’\textsuperscript{20} *On the Origin of Species*, published in 1859, immediately preceded the establishment of New Zealand’s acclimatisation societies and given its influence represents a strong insight into the dominant environmental ethos of the mid-nineteenth-century. As demonstrated in Chapter Eight, Darwin’s work was immediately influential in New Zealand, particularly with regard to the supposed inevitability of the success of European species and peoples in New Zealand over their indigenous equivalents.\textsuperscript{21} This notion adds further context, as acclimatisers introducing trout believed they were establishing a species that was inherently superior to the native species that existed in New Zealand, and were supported in this belief by the most influential scientific work of the period. While those responsible for introducing trout to New Zealand were a part of a society transitioning away from a theologically derived right to subjugate nature, this transition was far from complete. Statements found in nineteenth-century newspapers make this clear, for example: ‘It is astonishing how few species of animals, birds, and fish, or of vegetable productions capable of being adapted to useful purposes, have been brought within the general service of mankind.’\textsuperscript{22} This notion of animals serving humanity is directly linked to the acclimatisation movement by the *New Zealand Herald* in 1875:

It may, however, be said that the success of the Acclimatisation Society is one of the happiest omens for the future of the colony, for it has proved incontestably how favourable are the climate and soil of New Zealand to the growth and fullest development of those species of animals which serve mankind for food or for sport, or even for enjoyment, as forming a part of home scenery.\textsuperscript{23}

\textsuperscript{19} This is not to suppose that humanity is not still seeking to benefit from the natural world, but simply to state that we no longer see ourselves as separate from the natural world.
\textsuperscript{21} Arnold, *New Zealand’s Burning*, 233.
\textsuperscript{22} Untitled, *Otago Daily Times*, 29 April 1862, 4.
\textsuperscript{23} Untitled, *New Zealand Herald*, 20 November 1875.
Despite being in the midst of a transitional period and some notable opposition to these views, the majority of New Zealand settlers still believed that the natural world should serve people.

The dramatic environmental overhaul that settlers undertook in New Zealand upon their arrival should be viewed in the context of the competing philosophies of that age. It is apparent that despite the transition towards a more Arcadian and biocentric philosophy across the nineteenth-century, aspects of dominion theology, and its more secular manifestations, were still highly influential in the mid-nineteenth-century settlers’ system of belief. Understanding the environmental attitudes of settlers taking part in the acclimatisation movement permits us to sidestep the condescending criticism unavoidable when viewing their actions through a presentist lens and allows us to see their actions in their proper context. Knowing that British settlers believed they had a right to benefit from New Zealand’s environment, their actions in instigating the immense environmental transformation of New Zealand are unsurprising (see Fig. 2). The source of this belief, whether it was overtly religious, derived from the Book of Genesis, or whether it was derived from Darwinian notions of superiority, is not significant: what is significant is that a substantial number of settlers in mid-late nineteenth-century New Zealand believed they had a right to subjugate the natural world for their benefit. The introduction of trout to New Zealand should be viewed as a product of this belief.

![Otago Landscape depicting 'man-made Colonial Arcady', 1870](https://collections.tepapa.govt.nz/object/39014)

Fig 2: Otago Landscape depicting 'man-made Colonial Arcady', 1870

---

Recreating ‘home’

Few themes are as prevalent throughout nineteenth-century New Zealand social and environmental history as the concept of recreating Britain, or ‘home’. This concept was not limited to the re-creation of the British environment through the introduction of British species, but extended to city planning, recreational opportunities and the very structure of New Zealand’s society. Thus, part of the early environmental transformation was driven by a desire to render the landscape, and its inhabitants, more akin to what the settlers had left behind, albeit with certain improvements. One of the core arguments of this thesis is that the introduction of trout was inherently linked to the British colonisation of New Zealand, and the British Empire more broadly. The concept of recreating ‘home’, and the fact that it was a motivating factor in introducing brown trout to New Zealand, provides strong evidence of the connection between British colonisation and the introduction of brown trout.

Many aspects of New Zealand were already reminiscent of Britain, as New Zealand naturalist George Thomson noted: ‘The early settlers of New Zealand found themselves in a land which, as far as regards climate and natural conditions, seemed to them to reproduce many of the best features of the homeland from which they came.’ However, other aspects were distinctly foreign: the density of the bush, the turbulent weather and, most pertinent to our topic, the absence of familiar species. William Pember Reeves, one of New Zealand’s most significant early historians, wrote in 1898 that: ‘A New Zealander writing in London may be forgiven if he begins by warning English readers not to expect in the aspect of his country either a replica of the British Islands or anything resembling Australia.’ These quotations highlight one very simple, but important, caveat in understanding the attempt to recreate Britain: New Zealand was not Britain. Its environment was not the same as the British environment and attempts to recreate it were at best partially successful. Beyond the

25 The idea of Britain as ‘home’ was a recurrent theme in New Zealand history and literature, forming the basis of Allen Curnow’s famous 1941 poem “House and Land.” For example: ‘The spirit of exile, wrote the historian; Is strong in the people still’ and ‘Stands in a land of settlers; With never a soul at home’; Allen Curnow, “House and Land”, in Vincent O’Sullivan, An Anthology of Twentieth Century New Zealand Poetry, 3rd ed. (Auckland: Oxford University Press, 1987), 87-88.
26 Although devoid of the overt class boundaries.
27 This aspect works in conjunction with the notion of improving the land, because in most instances improvement meant transforming the land into something more familiar and more like Britain.
fundamental climatic and geological differences that precluded an absolute recreation, Britain’s environment has also been subject to human influence for vastly longer than New Zealand’s.\(^{30}\) Recreating Britain in any absolute sense simply was not possible. Accordingly, this analysis is prefaced by the fact that the attempt to recreate Britain was just that: an attempt.

Both the familiar and foreign aspects of New Zealand combined to form an environment that was capable of being remoulded in a British image, but which required considerable human action to achieve this. On this basis, Thomson stated: ‘They [settlers] recalled the sport which was forbidden to all but a favoured few, but which they had often longed to share in… and there rose up before their vision a land where all these desirable thing might be found and enjoyed.’\(^{31}\) New Zealand’s environment hinted at the possibility to improve upon Britain, on a social level, by making aspects of the environment more available to a broader range of classes. Thus, the environmental recreation of Britain cannot be separated from the socially aspirational themes that informed it. Andrew Hill Clark, writing in 1947, observed: ‘The landed class wanted the familiar sporting animals, and the far more numerous members of the underprivileged classes, especially those who had lived for a generation in the relative freedom of pioneer life, were even more avid to enjoy the sport and food available to their fathers only at poachers’ risk.’\(^{32}\) Settlers migrating to New Zealand aspired to improve their opportunities, including their sporting and recreational opportunities, and their attempt to recreate Britain was influenced by this aspiration.

Resulting from the conscious attempt to recreate ‘home’, New Zealand was often singled out in international colonial histories as the epitome of a ‘new Britain’. As Thomas Dunlap noted: ‘Here they [settlers] could speak of creating a “new England” – a dream … founded on the Wakefieldian vision of a transplanted and purified British Society in the South Seas…’\(^{33}\) However, this concept is not in any way unique to New Zealand, but rather is largely a shared heritage of British colonies. Writing of

\(^{30}\) Even accounting for the remarkable expediency with which New Zealand’s environment was modified.
\(^{31}\) Thomson, The Naturalisation of Animals and Plants in New Zealand, 21.
\(^{32}\) Andrew Clark, The Invasion of New Zealand by People, Plants and Animals, (Rutgers University Press, New Brunswick: 1949), 266.
\(^{33}\) The strong Scottish influence in Otago means that overall ‘new Britain’ is a more appropriate term than ‘new England’; Dunlap, Nature and the English Diaspora, 2.
both Australia and New Zealand, Libby Robin and Tom Griffiths argued: ‘British settlers wanted to transform these lands, tame them, make them like “home”.’\footnote{That New Zealand’s climate was more comparable to Britain’s than was Australia’s may largely explain why the recreation of Britain was more greatly effected in New Zealand; Libby Robin and Tom Griffiths, “Environmental History in Australasia”, Environment and History 10, no. 4 (2004): 443.} What may, however, be unique about New Zealand when compared with other British colonies is simply the extent to which they were able to achieve their intentions of recreating home, and the speed with which they were able to achieve it.\footnote{See Chapter Eight for more detail.} William Morrell, writing in 1935, stated: ‘The same food can be eaten [as in Britain]; the same clothing can be worn; the same birds and animals can be successfully acclimatised; the same games can be played.’\footnote{William Morrell, New Zealand, (London: Ernest Benn Ltd, 1935), 337.} Morrell’s words, however, could have been written 50 years earlier and the same would have been true.

One final aspect of recreating Britain that strongly influenced the introduction of brown trout to New Zealand is the idea of the rural idyll that permeated much of nineteenth-century British and colonial society.\footnote{Tom Brooking, “Use it or Lose It: Unravelling the Land Debate in Nineteenth-Century New Zealand”, New Zealand Journal of History 30, no. 2 (1996): 145; Miles Fairburn, “The Rural Myth and the New Urban Frontier: an Approach to New Zealand Social History, 1870-1940”, New Zealand Journal of History 9, no. 1 (1975): 5.} Born out of the increasing urbanization of Britain, the rural idyll suggested that there was a moral superiority, or an inherent desirability, to country or rural life.\footnote{Fairburn, “The Rural Myth and the New Urban Frontier”, 5.} This notion is clear in the writing of Gilbert White, who portrayed the small country village of Selborne as largely unaffected by the woes and moral turpitude of cities.\footnote{White, The Natural History of Selborne, ix.} Selborne typified social historian Miles Fairburn’s idea of a ‘garden paradise, which is nature both cultivated and domesticated by man.’\footnote{Fairburn, “The Rural Myth and the New Urban Frontier”, 5.} Directly situating the acclimatisation movement in this tradition, Dunlap observes: ‘The acclimatisers’ dream of a familiar landscape had its greatest appeal in Australia and New Zealand, where many were British-born and the literate were familiar with rural traditions and Gilbert White.’\footnote{Dunlap, Nature and the English Diaspora, 55.} As environmental historian Tom Brooking suggests, most Pākehā subscribed to this rural idyll and believed country life to be ‘socially preferable.’\footnote{Brooking, “Use it or Lose It”, 145.} Rollo Arnold further explained the significance of the rural idyll in New Zealand in arguing: ‘Essentially [settlers] were
after a prestige and way of life which had been given a lasting aura by the English
gentry. It was owning of freehold acres and hence styling oneself “esquire”; …it was
joining in prestigious country sports and recreations – hunting, shooting, fishing….\textsuperscript{43}
Arnold’s quote demonstrates that imbued into this rural mythology were the same
social aspirations implicit in the introduction of the recreational species that were
typically the domain of the elite. In post-industrial Britain, trout and salmon had
become synonymous with this rural mythology.\textsuperscript{44} These species, more so than any
other, typified the country pursuits so romanticised by the rural idyll and the
idealization of rural life was a factor in their introduction to New Zealand.

The introduction of brown trout to New Zealand is a direct product of the intention of
British settlers’ to recreate Britain in New Zealand. Brown trout were a familiar
species that would have had sentimental significance to many settlers or, in William
Cronon’s words, they were: ‘symbols of a cherished way of life lovingly imported to
a new home.’\textsuperscript{45} But, more significantly, the relative inaccessibility of trout fishing in
Britain for all but the elite meant that brown trout typify both the social progression
and the rural idyll implicit within the re-creation of Britain in New Zealand. As Alfred
Crosby observes: ‘The migrants wanted to be more comfortably European in lifestyle
than at home.’\textsuperscript{46} This trend was evident across the New World and New Zealand
ichthyologist and natural historian, R. M. McDowall, notes its direct application to
the acclimatisation movement in New Zealand in arguing: ‘And so began the long
process of acclimatisation, with one of the primary aims of the colonists being to
provide cheap and accessible hunting and fishing, and for everyone.’\textsuperscript{47} It was not
sufficient to merely recreate in New Zealand the environment and opportunities that
existed in Britain: they had to be improved and rendered more accessible to a broader
social range.

\textsuperscript{43} Arnold’s quote also strongly alludes to the egalitarian desires behind introducing trout to New
\textsuperscript{44} Adrian Stephen Franklin, “Performing Acclimatisation: The Agency of Trout Fishing in Postcolonial
Australia”, \textit{Ethnos} 76, no. 1 (2011): 23; Thomas, \textit{Man and the Natural World}, 244.
\textsuperscript{45} William Cronon, in Guthrie-Smith, \textit{Tutira}, xiii.
\textsuperscript{46} Alfred Crosby, \textit{Ecological Imperialism: The Biological Expansion of Europe, 900-1900}, 2\textsuperscript{nd} ed.
\textsuperscript{47} McDowall was also a R. M. McDowall, \textit{Gamekeepers for the Nation: the story of New Zealand’s
**Improving the land**

If there is a single word that recurs most often with regard to the motivations of settlers undertaking the environmental transformation of New Zealand in the nineteenth-century it is “improvement.” Eric Pawson and Tom Brooking best sum up the significance of improvement in simply stating: ‘Improvement was the ideology of colonisation.’\textsuperscript{48} It was fundamental to the actions of New Zealand’s British settlers in the nineteenth-century. Stenhouse and Beattie link improvement directly to dominion theology, in stating: ‘many [settlers] used “dominion theology” – the idea, derived from the book of Genesis, that God gave humans dominion over the earth and its creatures – to legitimize “improving” the land.’\textsuperscript{49} It is further connected to the notion of recreating Britain by Australian historian W. K. Hancock in concluding: ‘improvement of the “new country”, it seems, means doing everything that a man can to make it look like the “old country”.’\textsuperscript{50} Improvement of the land represents the terminus at which the belief amongst settlers in a right to subjugate the natural world and their desire to recreate Britain met with explosive effect. In keeping with an attempt to view the actions of settlers in their appropriate context, it is important to note that the concept of improvement is not a modern construction, but rather was a concept well understood and intentionally undertaken by nineteenth-century settlers in New Zealand. As Robin and Griffiths observe, the ‘word improvement was an early immigrant to colonial Australia’ and it is clear the same was true of New Zealand.\textsuperscript{51} For many settlers, improvement was synonymous with progress and the development of civilised society, and its influence in New Zealand informed the burning of bush, the draining of swamps, the introduction of agricultural and recreational animals and a huge range of other environmental changes.\textsuperscript{52}

There is no doubt amongst historians of the significance of this drive to improve the New Zealand landscape, but it is worth considering what settlers believed required improvement. Clarity can be found in contemporaneous newspaper reports: ‘Up to the

\textsuperscript{49} Beattie and Stenhouse, “Empire, Environment and Religion”, 414.
\textsuperscript{50} Hancock is writing of Australia, but the theme is common across both countries; W. K. Hancock, cited in Robin and Griffiths, “Environmental History in Australasia”, 443-444.
\textsuperscript{51} Ibid.
\textsuperscript{52} W. K. Hancock, *Discovering Monaro: A Study of Man’s Impact on his Environment*, (London: Cambridge University Press, 1972), 72.
comparatively recent period of colonisation, the extensive natural pastures of the Middle Island of New Zealand were naturally wildernesses of luxuriance running all to waste.\(^{53}\) Effectively, any area of land that was capable of being brought within the control of humans to grow food or produce exportable goods, but that was not currently being utilised, was a prime candidate for improvement. This improvement was, however, subject to natural environmental limitations. The *Daily Southern Cross* demonstrates the clear connection between these changes in the land and the improvement of the rivers through the introduction of British fish: ‘The rivers which irrigate those inviting regions become them. They are numerous, copious and perennial, and the water sweet and wholesome; but practically they are yet as tenantless as the pastures had been in former times.’\(^{54}\) This extract also alludes to the erroneous belief amongst settlers that New Zealand’s rivers and lakes were barren, and that European species were required to fill these perceived vacant ecological niches.\(^{55}\) James Beattie argues that these perceived vacancies, read in conjunction with the biblical justification to improve the land, explain the popularity of acclimatisation, as well as gardening, in New Zealand.\(^{56}\) Where ecological niches were most immediately apparent to settlers was with regard to flora and fauna that were of practical or economic benefit. Reeves concluded that: ‘English forms of life, therefore, have been of necessity drawn upon to fill the void spaces.’\(^{57}\) Cattle were brought as a source of food and industry, sheep for wool and European pasture plants to sustain the both of them. As Philippa Wells argues, this extended to less obvious examples too: ‘A distinctly pragmatic undertone can often be detected to such romantically inspired acclimatisations: rabbits and hares would be a source of meat and skins; goats would be useful for clearing scrub; and shade trees would provide shelter and timber.’\(^{58}\)


\(^{54}\) Ibid.


\(^{57}\) Reeves, *The Long White Cloud*, 37.

There is no doubt whatsoever that the introductions of many foreign species were economically motivated but an economic motivation for the introduction of trout is harder to substantiate. Where trout are concerned, utility is a more valuable term than economy, as trout were seen as a source of recreation and food more so than a tradable economic good.\textsuperscript{59} Wells notes: ‘[New Zealand environmental historian Paul] Star argues utility served as an important impetus, citing the Otago Acclimatisation Society in support: “no country requires acclimatisation to add to its resources more than New Zealand.”’\textsuperscript{60} Early plans to introduce trout were immediately in the wake of settlement, when migrants’ primary concerns were utilitarian: food, shelter and security. The value of trout as a prospective food source should not be underestimated, particularly to Scottish settlers migrating in the wake of a famine in the Scottish Highlands, but it should only be seen as part of the motivation.\textsuperscript{61} If their food value was a more substantial portion of the motivation, it is likely that trout would have been farmed for food in major centres in the late nineteenth-century.\textsuperscript{62}

That the acclimatisation societies were able to rear and breed trout establishes the feasibility of trout farming, but instead of selling trout as food acclimatisation societies were focused on establishing wild populations around the country in keeping with the desire of settlers to realise the aspirational opportunity to catch their own dinner.

The absence of sporting animals in New Zealand was a critical area where acclimatisation societies saw potential for improving New Zealand’s environment. Writing with specific regard to animals introduced for hunting, Dunlap observes: ‘Australian animals were not “sporting” because they lacked the cultural associations that would embed the act of killing them in a familiar manner.’\textsuperscript{63} Similarly, New Zealand’s native birds, such as the kereru (\textit{Hemiphaga novaseelandiae}), were deemed too slow to provide suitable sporting challenge. This same rhetoric applied equally to freshwater fish in New Zealand, as Charles Hursthouse, writing in 1857, bemoaned:

\textsuperscript{59} Trout were sold at various points and larger lakes were netted commercially, although there is little evidence of an intention to establish a commercial fishery prior to their introduction. Thus it represents more of a realisation of an existing resource than a motivation for the introduction of trout.
\textsuperscript{60} Wells, “An Enemy of the Rabbit”, 299.
\textsuperscript{61} I would go so far as to suggest that if trout had no value as a food source, but retained the same sentimental, sporting and aspirational values, they would have been introduced at much the same time.
\textsuperscript{62} McDowall notes that trout farming was not suggested in any serious capacity until the 1960s; McDowall, \textit{Gamekeepers for the Nation}, 136.
‘Just as New Zealand’s forests are destitute of game, so are its rivers destitute of fish…they boast no single fish worth the anglers’ catching…’  

Similarly, William Spackman, in his 1892 Trout in New Zealand, claimed: ‘…every one of these mighty rivers, every one of the thousand creeks and streams that flow into them, or that water the islands of New Zealand, were tenantless and profitless to the sportsman.’

Settlers saw the rivers and lakes of New Zealand, with their lack of native salmonids or species of similar recreational and culinary value, as an area of New Zealand’s environment that could be improved. They saw potential in New Zealand’s freshwater resources, but that potential required human improvement through the introduction of British fish to be realised. This improvement was, however, subject to natural environmental limitations as, given New Zealand’s varying latitudes and the weather systems produced by the Southern Alps, not all regions could be improved in the same way. This explains why, despite all regions expending significant effort to introduce brown trout, the southern centres of Canterbury and Otago achieved their goals to improve their rivers and lakes with far greater ease than Auckland did. Auckland, with regard to brown trout, was simply less capable of being improved than Otago because the water temperature in Auckland was frequently too high for brown trout to breed.

Overall, the introduction of trout to New Zealand was a direct result of the movement amongst settlers to improve their environment subject to the environmental limitations of the region.

**From improvement to destruction?**

Improvement was the dominant ideology of nineteenth-century settlers; however, not all improvements were subsequently seen in a positive light. Historical geographer, Graeme Wynn, points this out in noting: ‘As early as 1872, a history of New Zealand birds brought a sharp rebuke of the “silly mania for acclimatisation” from a review in Nature: “In a reckless way animals of extremely doubtful advantage have been transported to the antipodes….”’

Highly influential in this transition to questioning the outcomes of acclimatisation was the seminal 1864 work of American naturalist

---

64 Charles Hursthouse, cited in McDowall, Gamekeepers for the Nation, 216.
66 This applies generally, not just specifically to trout. It remains applicable to this day, as dairy farmers on the east coast of New Zealand’s South Island are increasingly discovering.
67 See Chapter Six for more detail.
68 Wynn, “Remapping Tutira”, 422.
George Perkins Marsh, *Man and Nature*, which outlined the ways in which humans were capable of damaging the environment through their actions. In 1897, in a lecture delivered to the Otago Institute, pioneer environmentalist Alexander Bathgate argued: ‘It is a matter for regret that the zeal of the earlier acclimatisers was greater than their knowledge, and that mistakes were made by them fraught with evil results of a far-reaching and permanent nature.’ Some mistakes were obvious and immediate in their impact, such as the introduction of rabbits and the subsequent introduction of mustelids to control the rabbits, whilst others were subtler and did not manifest for decades. However, concern for the effect humans had wrought on the land was not limited to the introduction of foreign animals but rather encompassed the far broader and more fundamental environmental transformation of New Zealand. Guthrie-Smith, after a life as a Hawke’s Bay sheep farmer, queried: ‘Have I then for sixty years desecrated God’s earth and dubbed it improvement?’ Wynn comments on this, stating: ‘[Guthrie-Smith] wondered if, after a lifelong commitment to improvement, it would not have been better to “admire, conserve, let well alone.”’ Demonstrating this transition, in the introduction to *Making a New Land* Pawson and Brooking segue from discussing the Wakefieldian ideal of improvement to detailing the realities of soil erosion and rabbit infestations in a time period spanning not even a century.

The concept of improvement, and the associated environmental change, stands in direct contrast to the majority of modern environmental practices. American historical geographer Jerry Towle lamented: ‘The wholesale biotic dissemination of the nineteenth-century is currently viewed as irresponsible and regrettable… today unsanctioned introduction of any animal is a criminal act, not a praiseworthy contribution to society.’ Whilst Towle is writing from a Californian perspective, New Zealand’s current strict bio-security regime to prevent the introduction of

---

71 Guthrie-Smith, *Tutira* xxiii.
exotic animals, plants and organisms demonstrates that the same is true in New Zealand. However, this only serves to further reinforce the importance of viewing the actions of the past in their appropriate context and to affirm that the nineteenth-century was a period of transitioning environmental philosophies. Writing of the current dynamic between introduced and native species, Wayne Fraser states: ‘Despite the length of time many introduced species have been present and the fact that, on balance, public perceptions and attitudes towards many of them are generally positive, the majority of respondents (59 per cent) felt that these species could not be considered part of our natural fauna.’\textsuperscript{75} Put simply, despite being in New Zealand for 150 years, brown trout will never be native to New Zealand. They receive significant protection and advocacy as a result of their popularity as a sports fish, but they will never receive the intrinsic protection that is today reserved for native species.

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{iconic_new_zealand_tourism_poster_1936.png}
\caption{Iconic New Zealand tourism poster, 1936\textsuperscript{76}}
\end{figure}

Despite this trend towards a negative perception of introduced species and the acclimatisation movement generally, there is a recurrent theme, even very recently,

\textsuperscript{76} Maurice Alec Poulton, “For the Worlds Best Sport, New Zealand,” National Library of New Zealand, [Accessed 5 December 2017: https://natlib.govt.nz/records/22864915]; Whilst this poster occurs outside of the immediate period of this study it demonstrates the significance that trout fishing came to have within New Zealand.
that brown trout were a beneficial exception to the rule. This is in keeping with Marsh’s belief that, despite the harm humans were causing to the land, the acclimatisation of varying species of fish remained a beneficial act.\textsuperscript{77} There is also no doubt that Reeves had trout, at least partially, in mind when he concluded: ‘On the whole, however, though acclimatisation has given the Dominion one or two plagues and some minor nuisances, it would be ridiculous to pretend that these for a moment weigh in the scale against its good works.’\textsuperscript{78} Bathgate, quoted above disparaging the reckless nature of the acclimatisation movement, qualified his statement by noting: ‘I do not desire to underrate the valuable work they [the acclimatisation societies] have done in stocking our rivers with splendid fish, and thus adding an additional attraction to life in this colony.’\textsuperscript{79} Similarly, Thomson, writing in 1922, argued: ‘The naturalization of this species [brown] of trout in New Zealand waters is the most successful piece of acclimatisation work undertaken in this colony. It has exceeded all expectations.’\textsuperscript{80} Joan Druett, writing in 1983, also observed: ‘The project stocked streams and rivers with a fine sporting fish and gave New Zealand a worldwide reputation as an angler’s paradise [see Fig. 3].’\textsuperscript{81} Finally, writing in 1989, McDowall declared: ‘If we were beginning today, I think that we might still introduce rainbow and brown trout, but we would be more discerning about where they were released.’\textsuperscript{82} There is no doubt that brown trout were viewed, and by many continue to be viewed, as a beneficial contribution to the New Zealand environment.\textsuperscript{83} However, such positive views are strongly qualified by the damage to galaxiids and other native species that brown trout have caused since their introduction in 1867.\textsuperscript{84} Brown trout,
therefore, represent a complex proposition insofar as they have both value and utility as a recreational fish but they are also capable of playing the traditional role of a pest in destroying native species. This dynamic is addressed in far greater detail in Chapter Eight.

**Secondary sources**

The literature that specifically pertains to the introduction of trout to New Zealand is, as previously mentioned, relatively limited.\(^85\) Samuel Charles Farr, the secretary of the Canterbury Acclimatisation Society, wrote a *History of Trout Culture In Canterbury, N.Z.* in 1880, which provides a brief account of the introduction of trout to Canterbury, although the actual description of the introduction is just eight pages long.\(^86\) There is also strong cause to question aspects of Farr’s work as a result of the animosity he expressed towards the Canterbury Acclimatisation Society curator, Andrew Johnson. Farr and Johnson fell out in 1875 and, as a result, Farr subsequently discredited much of Johnson’s work.\(^87\) Druett has studied this disagreement and suggests that it: ‘has helped to make the records of that time somewhat unreliable.’\(^88\) Despite this, the appendix to Farr’s book contains excellent tables detailing the recipients of trout from the society between 1868 and 1879.\(^89\) Arthur Nicols’ 1882 *The Acclimatisation of Salmonidae at the Antipodes* is of a more substantial nature than the majority of the works of this time as it details all salmonidae across both Australia and New Zealand.\(^90\) The focus, however, is undoubtedly on Atlantic salmon (*Salmo salar*) at the expense of its depiction of the introduction of trout. William Spackman’s 1892 *Trout in New Zealand* contains a relatively accurate, but brief,
account of the introduction of trout. Whilst there is a particular focus on Canterbury, due to his relationship with the Canterbury Acclimatisation Society who published the book, there is still sufficient attention given to the introductions around the country. Contrastingly, George Ferris’ *The Trout Are Rising: A Comprehensive Work on Fly Fishing in New Zealand* entirely omits the Canterbury introduction of 1867, instead suggesting that Otago’s 1868 introduction was the first successful introduction of brown trout to New Zealand. These books are of little actual use, when compared with the primary sources, in writing a history of the introduction of brown trout to New Zealand.

The sole substantive academic history on the introduction of trout to New Zealand is Alexandra Dekker’s 2014 Masters thesis ‘Freshwater Colonists: The Wellington Acclimatisation Society and the Introduction of Trout, 1871-1914.’ There is much to recommend in Dekker’s work as it provides excellent detail on the administrative structure of the Wellington Acclimatisation Society. It neatly contextualizes this society within the wider international acclimatisation movement and addresses the associated environmental modification of New Zealand very well. She also accurately acknowledges the gendered nature of the acclimatisation societies in noting how few women were involved in these societies prior to the 1970s as well as the peripheral roles that women occupied in the burgeoning trout fishing industry. However, her thesis also suffers from two primary limitations. Firstly, the extent to which her thesis addresses the introduction of trout to Wellington is limited, demonstrated by the fact that she does not actually mention the year in which they were first introduced (1871). In some ways the title of her work does her a disservice, as the scope of her thesis is actually much broader than the title suggests. It should more properly be viewed as a history of the Wellington Acclimatisation Society, with a secondary focus on trout and particularly the ensuing culture of trout fishing. Linked to this is the second limitation, namely that Dekker’s reliance on the official records of the Wellington Acclimatisation Society results in her missing a swathe of information contained in

---

92 Druett, *Exotic Intruders*, 133.
contemporaneous newspapers. Use of newspaper sources is not absent in Dekker’s work, but it is limited to specific instances rather than forming part of her overarching methodology. Chapter Five of my research will demonstrate that Dekker is simply incorrect in stating: ‘There are very few records that document the early introductions of trout to Wellington.’ It is just that this information is not contained in the official records and minutes of the Wellington Acclimatisation Society, but rather in the newspapers that were published at the time of the introductions. Nevertheless, overall Dekker’s thesis is a valuable contribution to the history of acclimatisation in New Zealand, particularly when read in light of its focus rather than its title.

There are a number of books that have centred on the introduction of exotic flora, fauna and organisms to New Zealand, and which address the acclimatisation movement to varying degrees. G. M. Thomson’s 1922 *The Naturalisation of Animals and Plants in New Zealand* canvases the full spectrum of plants and animals introduced to New Zealand, and contains a section on the introduction of trout. Thomson, approaching the subject from a scientific perspective, categorises and distinguished between the various subspecies of brown trout and particularly between *Salmo trutta* (then believed to be a sea-going variety of brown trout) and *Salmo fario* (believed to be the riverine variety), and described the introduction of each independently. His focus is less on the actual introduction of trout to New Zealand, which is described relatively briefly, and more on the current distributions of brown trout and their predation on native species. Andrew Hill Clark’s *The Invasion of New Zealand by People, Plants and Animals* is written in the same vein as Thomson’s work and makes only passing reference to the introduction of trout. Of the general histories of introduced species Joan Druett’s *Exotic Intruders: The Introduction of Plants and Animals to New Zealand* provides the most comprehensive account of the introduction of trout to New Zealand, although she spends more time on their prior

---

95 The official records are extremely valuable and a necessary source, but they are limited in the information they contain and require supplementation with other sources. Her focus on them also explains why her thesis is so strong on the administrative aspects of the society.
96 Dekker, “Freshwater Colonists”, 18.
98 Today such distinctions have been done away with, and all brown trout are considered *Salmo trutta*.
100 Clark, *The Invasion of New Zealand by People, Plants and Animals*, 266.
introduction to Tasmania.\textsuperscript{101} However, whilst Druett’s is the most substantial account, it is still brief and has minor inaccuracies.\textsuperscript{102} On a broader scale is Alfred Crosby’s \textit{Ecological Imperialism: The Biological Expansion of Europe, 900-1900}, which seeks to explain the successful colonisation of the New World by the transmission, intentionally and passively, of Old World animals, plants and organisms.\textsuperscript{103} His thesis has been both influential and divisive in the field of environmental history and it forms a substantial portion of Chapter Nine of my research. As will be demonstrated, the introduction of brown trout to New Zealand provides a valuable metric against which to test Crosby’s concept.

The single work most applicable to my research is R. M. McDowall’s 1994 \textit{Gamekeepers for the Nation}, which provides an overview of the acclimatisation movement and the introduction of the major species for which these societies were responsible.\textsuperscript{104} The scope of McDowall’s book is enormous as it attempts to tell the complete story of acclimatisation in New Zealand over a 130-year period. Many aspects of this work should be commended; however, as a result of its scope it is necessarily brief in its dealings with individual species. The introduction of brown trout, for instance, occupies a mere eight pages.\textsuperscript{105} Furthermore, he is largely reliant on the records of the various acclimatisation societies, which do not provide nearly as much information as newspapers did.\textsuperscript{106} Where the book does have significant value is with regard to the social context in which the acclimatisation societies were formed and operated.\textsuperscript{107} Overall, it is best viewed as a starting point from which to launch this more specific research. McDowall’s subsequent work \textit{Ikawai: Freshwater Fishes in Māori Culture and Economy} is arguably a more impressive piece of research that clearly sets out the value of freshwater fish to Māori and provides significant

\textsuperscript{101} Likely as a result of the greater amount of secondary sources written on the introduction to Tasmania; Druett, \textit{Exotic Intruders}, 128-149.
\textsuperscript{102} Her account of the 1867 introduction is limited to one paragraph and she suggests that Canterbury received only 400 ova instead of 800 in 1867; Druett, \textit{Exotic Intruders}, 134.
\textsuperscript{105} Ibid, 247-255.
\textsuperscript{106} This is a common observation and is testament to the value of my methodology.
\textsuperscript{107} McDowall, \textit{Gamekeepers for the Nation}, chapters 1-13.
information on the impact of introducing trout to New Zealand upon both native fish and Māori themselves.  

One quite distinct group of books that address the introduction of trout are the histories of the various acclimatisation societies. Typically written to celebrate the centenary of an acclimatisation society, each of these books contains a passage on the introduction of trout into their region. Because they are so focused upon specific regions they often lack national context, although they have a useful biographical element and include something of the personalities of the people involved in the societies. Given that these are internal productions, they are also subject to bias and, therefore, the information contained within them is best verified by checking newspapers and other sources. Overall, they provide a useful supplement to newspapers and archival sources, particularly with regard to the structures and administration of the societies.

There are also a number of works that, whilst focussed on different subjects, directly address many of the same colonial and environmental themes as my research. Kate Hunter’s *Hunting: A New Zealand History* provides an excellent social and cultural history of hunting in New Zealand. Her work is less overtly focused on the specific introductions of foreign species than it is on the culture of hunting that developed subsequently, including the hunting of native game. Despite this, her work clearly demonstrates the desire of settlers to improve New Zealand’s environment through the introduction of foreign species, as well as the complex Māori-Pākehā resource dynamic that followed these introductions.

---


111 In a similar vein is Claire Brennan’s PhD thesis, which I have been unable to access; Claire Brennan, “Imperial Game: A History of Hunting, Society, Exotic Species, and the Environment in New Zealand and Victoria 1840-1901”, (PhD thesis, University of Melbourne, 2004).
Paul Star’s PhD thesis ‘From Acclimatisation to Preservation: Colonists and the Natural World in Southern New Zealand, 1860-1894’ is centred on very similar themes and a similar time period to my research.\footnote{Paul Star, “From Acclimatisation to Preservation: Colonists and the Natural World in Southern New Zealand, 1860-1894”, (PhD thesis, University of Otago, 1997).} In particular, he addresses the settler perception of the indigenous environment and the transition in environmental beliefs, as well as the attitudes that informed the acclimatisation movement. His work offers excellent context to my own research, focusing upon the acclimatisation movement in Otago more broadly, rather than my specific focus on trout. Similarly, Guil Figgins’s 2011 PhD thesis ‘Hunters and Collectors: Red Deer and Transformations in Hunting Spaces’ also addresses a number of these social and environmental themes, although distinctly from the perspective of a geographer.\footnote{Guil Figgins, “Hunters and Collectors: Red Deer and Transformations in Hunting Spaces”, (PhD thesis, University of Otago, 2011).} His work provides an excellent point of comparison with my research, as deer were introduced for very similar reasons to trout and enjoyed similar successes in their new environment. Catherine Knight’s Rivers: An Environmental History is an important work as it addresses both the colonial perspective on rivers, with the implicit notions of improvement and environmental subjugation, and the Māori perspective.\footnote{Catherine Knight, Rivers: An Environmental History, (Christchurch: Canterbury University Press, 2016).} In particular her nuanced explanation of the relationship between Māori and freshwater resources assisted me in writing Chapter Seven. Her chapter on the introduction of freshwater fish mirrors a number of aspects of my research, albeit with necessary brevity given that it is just one component of her research.\footnote{Her section addressing the actual introduction of trout is in part based on my honours thesis; Jack Kós, “A Most Excellent Thing: The Introduction of Brown Trout (Salmo trutta) to Canterbury, New Zealand, 1864-1872”, (BA hons thesis, University of Canterbury, 2013).}

David Young’s Our Islands, Our Selves: A History of Conservation in New Zealand provides an excellent account of the transformation of New Zealand’s environment in the nineteenth-century and the transition from ideals of improvement to conservation that occurred in the century following the introduction of trout.\footnote{David Young, Our Islands, Our Selves: A History of Conservation in New Zealand, (Dunedin: University of Otago Press, 2004).} However, where his work proves extremely valuable is with regard to the relationship between introduced species and native species and the varying policies that were undertaken by...
individuals and government alike to manage these species. Whilst *Making a New Land: Environmental Histories of New Zealand*, edited by Eric Pawson and Tom Brooking, does not specifically address the introduction of brown trout to New Zealand, it remains the most significant environmental history of New Zealand.\(^{117}\) It addresses the concepts of improving the land and recreating Britain in detail. A number of its chapters, such as James Beattie’s ‘The empire of the rhododendron’, also offer direct comparisons with the acclimatisation movement.\(^{118}\) Finally, the one area where the introduction of brown trout has been written about extensively is in scientific literature with regard to their impact on native fishes.\(^{119}\) The extent to which I engage with these pieces is limited because of their scientific nature; however, they do provide valuable evidence to substantiate the impact of salmonids on native fish.

**Primary sources**

Whilst there is a relative lack of secondary sources directly on the introduction of brown trout to New Zealand, there is an absolute abundance of primary sources. Effectively, the lack of secondary sources demonstrates the value of this research whilst the profusion of primary sources establishes its feasibility. It is not my intention here to provide an exhaustive catalogue of the materials I am using, but rather to highlight key materials as well as categories of material and their respective benefits and limitations. The primary sources fall into two main groupings: archival material and newspapers from the period.

Archival material forms one of my main primary resources in conducting this research. Whilst some archival material has been digitized and is available online, the majority of the relevant material is held in either the National Archives offices in Wellington, Auckland, Christchurch or Dunedin, or in local or national museums or

---


libraries. The key archival materials I have utilised are the annual reports, minute books, letter books, regulations and other sources produced by the acclimatisation societies themselves.\textsuperscript{120} In addition, there are a number of letters and diaries written by individuals involved in the introductions.\textsuperscript{121} The annual reports, in particular, feature valuable data surrounding the numbers of trout introduced, but their actual accounts of the introductions are frequently brief and general. Many annual reports conclude with tables denoting the number of ova imported, the number of trout hatched and the rivers or region to which these young trout were subsequently distributed.\textsuperscript{122} This information lends an objective angle to the information contained in the newspapers, although it does not convey many of the details necessary to write a narrative history. Given that the reports are directly produced by the acclimatisation society, some of the information does have a tendency to be slightly self-congratulatory although not to the same extent as the centenary histories of the acclimatisation societies. There are also some issues with regard to specific biases, as typified by the absence of credit given to Johnson for the 1867 introduction in the Canterbury Acclimatisation Society’s records. However, these instances are more than compensated for by information derived from newspapers.

A number of digital archives exist online that I have made use of in my research. Digitised and available online in a government database, the \textit{Transactions and


\textsuperscript{121} Williamson, J. W., Letter to A. T. Pycroft Re Auckland Acclimatisation Society, MS11, Auckland Museum, Auckland, New Zealand; ‘Fitzgerald (emigration) to Superintendent – on fish and game to the colonies, 27/05/1859’, R22188105, Archives New Zealand, Christchurch, New Zealand; ‘A. M. Johnson to Provincial Secretary - Trout Ova Available from Tasmania.’ R22678640, Archives New Zealand, Christchurch, New Zealand; Copy of Journal of Mr. Alexander Black, in charge of salmon ova, in the S. Courling [sp.], 1860, PQ597.55BLA, Allport Library, Hobart, Tasmania, Australia.

\textsuperscript{122} However, this information was typically not complete and accordingly in most regions actual tables of the numbers of trout that were introduced, and where they were introduced to, could not be compiled; Wellington Acclimatisation Society Annual Report 1887, MSX-6855, Alexander Turnbull Library, Wellington, New Zealand, 21.
Proceedings of the Royal Society of New Zealand, provide the leading scientific papers and presentations from New Zealand in the nineteenth-century.\textsuperscript{123} Established in 1867, the Royal Society of New Zealand was not as active as the Royal Society of Tasmania with regard to the introduction of trout, but they still published a number of papers and presentations on brown trout. Of particular value are the lectures of William Arthur entitled ‘On the Brown Trout introduced into Otago’, which were delivered to the Otago Institute and subsequently published in the Transactions and Proceedings of the New Zealand Institute (the original name of the Royal Society of New Zealand).\textsuperscript{124} A book was subsequently compiled of these lectures and published as Otago Brown Trout.\textsuperscript{125} They provide some history as to how brown trout were introduced to Otago, but the primary focus is, much like Thomson’s work some 40 years later, on growth rates and distribution. The Appendices to the Journal of the House of Representatives is an annually published collection of government-related reports. Whilst government involvement in the actual introduction of trout was mostly limited to financial contributions, it was responsible for the legislation relating to the protection of fisheries. Therefore, the Appendices at times provide context to the purpose of the legislation, although it did not form a significant part of my research.\textsuperscript{126} Similarly, the New Zealand Parliamentary Debates also contained in an online digitised archive, provides transcripts of the debates from the New Zealand Parliament.\textsuperscript{127} Much like the Appendices, because of the limited government involvement in the introduction of trout the Parliamentary Debates have only been used in a number of specific instances.\textsuperscript{128}

Embarking upon this research it was my assumption that archival material would be the most substantial source material, but this has not proven to be the case in light of the extent of information contained in newspapers. However, archival material does, as a result of its typically more formal status, provide valuable substantiation to the

\textsuperscript{125} William Arthur, Otago Brown Trout, (Dunedin: J. Wilkie & Co, 1883).
\textsuperscript{126} “Further Despatches From His Excellency the Governor of New Zealand to the Right Hon. The Secretary of State for the Colonies”, Appendices to the Journals of the House of Representatives, Session 1 A-01 (1868), 16.
\textsuperscript{128} Sir Āpirana Ngata, New Zealand Parliamentary Debates 211, (1926): 290.
information contained within the newspapers. Accordingly, it is a body of material that must be thoroughly engaged with even where newspapers provide a more comprehensive picture. In some instances, although far fewer than would be expected, it also details information that was not contained in newspapers. For instance, the reports of the Tasmanian Salmon Commissioners held at Allport Library, Hobart, Tasmania, established a connection between the Salmon Commissioners and the Tasmanian Government that was simply not depicted in Tasmanian newspapers. This proved to be an important point of difference between the introductions of brown trout to New Zealand and Tasmania.

Newspapers, generally, provide a remarkably comprehensive account of nineteenth-century settler life. As Paul Star argues: ‘I am convinced that, in a context like nineteenth-century New Zealand settler society, our best bet for thorough understanding is in trawling old newspapers.’ Having completed this research, I am certain that he is correct, as newspapers offer not only detailed information but also a feel for the period and the people involved that is simply absent in more formal sources: they provide the colour to an otherwise black and white picture. Because of the public interest in the introduction of trout, the level of information available in newspapers is astonishing. Where an acclimatisation society’s annual report mentions that trout ova were received from Tasmania, newspapers tell us who went to receive them, when and on what ship, as well as often providing a personal account from individuals involved. Newspapers also provide a broader societal picture, depicting the mood of society following the arrival of the ova and the numbers of people that turned out to view them. Furthermore, the letters to the editor and correspondence sections provide a fascinating and extremely useful insight into the opinions held both by individual settlers and society as a whole. This has been particularly important in

---

129 I believe this is only the case because the introduction of trout was a topic of great public interest, and thus every step was recounted in newspapers. A more obscure topic, or even a different construction of this topic looking more closely at the administrative aspects of the societies, would likely have far more of a focus on official records.

130 Allport Library is named after the Allport family, one of whom, Morton Allport, was himself one of the Tasmanian Salmon Commissioners responsible for the introduction of brown trout to Tasmania; Report of the Tasmanian Salmon Commissioners, 20 August 1862, PQ639.3755TAS, Allport Library, Hobart, Tasmania, Australia.

elucidating some of the more subtle inferences. Writing of the value of newspapers as a historical source, Rollo Arnold observes:

But the real juice of the New Zealand press was not in the brief, bland summaries that flowed from the telegraph, but in the fuller, personalized offerings of the army of “Our Owns”, the gifted contingent of “Our Travelling Reporters”, and the scissors’ reaping from the cream of the world of international journalism. With regard to my research, these roaming reporters are important in providing a comprehensive account of the introduction of trout to country localities as well as providing more substantial feature articles that detail the introduction process fastidiously. Similarly, the judicious reprinting of international articles, typically British, on pisciculture serve to establish the imperial connection in the spread of trout and pisciculture technology to New Zealand.

Finally, it is worth acknowledging a fundamental source bias: the vast majority of my primary sources are Pākehā and do not adequately address the Māori voice. Where Māori are mentioned in newspapers, it is from a distinctly outside perspective, such as observing early Māori opposition to trout in Canterbury or with regard to poaching. Even in instances where Māori commentators are reported directly, for instance Māori Members of Parliament, it is typically in a distinctly Pākehā frame. More frequently, Māori are simply not mentioned in relation to trout at all. Despite the Māori silence in primary sources, the dynamic between Māori and trout speaks to a number of incredibly significant issues in New Zealand’s environmental and race relations’ history. As a result, Chapter Seven focuses exclusively on trout and Māori, as do aspects of Chapters Eight and Nine. In writing these chapters I have attempted to address the imbalance in primary source material by focusing heavily on reports and research papers of the Waitangi Tribunal as well as works such as McDowall’s Ikawai, Atholl Anderson, Judith Binney and Aroha Harris’s Tangata Whenua and a number of other sources that directly address the Māori perspective.

---

132 Such as the Sabbatarian debate in Otago and the egalitarian debate in Wellington; “Correspondence.”, Wairarapa Daily Times, 8 March 1888, 2.
133 Arnold, New Zealand’s Burning, 234.
135 I.e. Pākehā institutions in New Zealand.
136 As evinced by the lack of reference to Māori in Chapters Three and Four.
Conclusion

This thematic literature review has clearly demonstrated the dominant ideologies at work on New Zealand settlers in the nineteenth-century, as well as the primary motivations behind the introduction of brown trout to New Zealand. As mentioned, it is critical to understand the actions of settlers according to the mind-set of the time. Dekker correctly notes that there was no ‘malicious intent’ to their actions but rather they acted out of a genuine belief that what they were doing was beneficial, both individually and on a societal level.\textsuperscript{138} Whilst there was a philosophical transition taking place across this period, the dominant zeitgeist remained that humans had a right to benefit from the natural world.\textsuperscript{139} Migrants to New Zealand engaged in two interconnected campaigns in the wake of settlement: recreating Britain and improving New Zealand. The result was a dramatic overhaul that fundamentally and irrevocably changed New Zealand’s environment through the clearing of land, the burning of bush, the draining of swamps and the introduction of recreational, agricultural and sentimental species alike. The introduction of brown trout represents an instance where the goals of both campaigns were achieved through the same act: aspects of Britain were recreated through the establishment of a British species with the ensuing British recreational opportunities, and the rivers and lakes that were seen by settlers as barren were improved. Even in light of more modern and nuanced environmental perspectives on acclimatisation, trout continue to be seen by many as one of the few positive acts of this period.

The introduction of brown trout to New Zealand was motivated by a number of factors, as explained by the Otago Acclimatisation Society in 1865: ‘The sportsman and lover of nature might then enjoy the same sports and studies that make the

\textsuperscript{138} Dekker, “Freshwater Colonists”, 105.
\textsuperscript{139} Whether overtly through dominion theology derived from the Book of Genesis or more probably through secular Darwinian routes.
remembrance of their former home so dear, the country rendered more enjoyable, our
tables better supplied…”\footnote{140} There is no doubt there was a sentimental aspect in the
introduction of brown trout to New Zealand, closely linked to the desire to recreate
Britain. Perhaps more significantly, brown trout were an aspirational species for a
great number of settlers as a result of their synchronicity with the rural idyll and a
connection to the natural world.\footnote{141} Thus, the introduction of brown trout, and the
subsequent accessibility of trout fishing in New Zealand, represented the realisation
of the social progression that many British migrants sought in travelling to New
Zealand. Linked to both the re-creation of Britain and the aspirational aspect is a
simple desire amongst British settlers to be able to catch trout in New Zealand’s
streams. This was in part motivated by a desire for the recreational opportunities that
were unavailable to most settlers in Britain, and unavailable in New Zealand until
1867, and in part because trout had the potential to be a valuable food source. The
dietary value of trout as a motivation for their introduction is most applicable in the
early years of organised settlement when the concerns of settlers were more
utilitarian.\footnote{142} However, as the settlements, and their food supplies, became more
established the sentimental, aspirational and recreational motivations for the
introduction of trout took precedence.\footnote{143}

Finally, there is a stark dichotomy between the primary and secondary sources
relating to the introduction of brown trout to New Zealand. Where secondary
literature on the introduction of trout is scarce, primary sources abound. The
secondary literature utilised in this research typically pertains to the broad themes
rather than the specific details of the introduction, given how well represented the
details are in primary sources. One exception is with regard to Māori, who were
dramatically underrepresented in the primary sources and accordingly particular
emphasis has been placed on secondary sources in this area. By conducting an
exhaustive survey of nineteenth-century newspapers, a remarkably comprehensive
account of the introduction of trout to New Zealand has been catalogued. The
information provided by newspapers has been substantiated through the annual

\footnote{140} Otago Acclimatisation Society Annual Report 1865, MS378/R, Hocken Collections, Dunedin, New
Zealand 7.
\footnote{141} All too infrequent in an increasingly urbanised Britain; Franklin, “Performing Acclimatisation”, 23.
\footnote{142} As evinced by the focus on trout as food in early Otago discussions surrounding their introduction.
\footnote{143} All of these motivations serve to cement the connection between the introduction of trout and the
British Empire, as discussed in detail in Chapter Nine.
reports and records of the acclimatisation societies, and it has been contextualised in New Zealand’s wider environmental, social and colonial history through the judicious use of applicable secondary literature. The result is what I hope will be a definitive and valuable history of the introduction of brown trout to New Zealand.
Chapter Two: The Introduction of Brown Trout to Tasmania

Introduction

The island of Tasmania, known as Van Diemen’s Land until 1856, lies 240 kilometres south of mainland Australia. The terrain of Tasmania fluctuates from stark heath-laced sub-alpine plateaus in the Central Highlands through to temperate rainforests inland from the coast. Riddling the Central Highlands is an astonishing array of lakes and tarns in each dip or valley in the plateau, many of which are interconnected by seasonal rivulets. As these bodies of water drain off the plateau they join to form substantial rivers and streams that become increasingly meandering and slow-flowing as they approach the coast: in the south the Derwent and Huon Rivers, the west the Gordon and Franklin Rivers, and in the northeast the Tamar River. Upon reaching the coast these rivers form substantial estuaries that provide fertile feeding grounds for native and introduced species alike.

The Palawa, Tasmanian Aborigines, first crossed from mainland Australia via a land bridge approximately 35,000 years ago and, upon the subsequent dissolution of the bridge, lived in isolation until European arrival in the late eighteenth-century. The plenitude of seals and whales along the coastline provided the motivation for the first British colonists to settle at the turn of the nineteenth-century and a number of small settlements were established around the coastline.¹ British settlement increased throughout the early nineteenth-century until by the 1830s Tasmania possessed a third of the European population of Australia and a majority of the sheep.² In 1861 English settlers comprised the majority of the population, alongside substantial portions of Irish and Scots.³ However, the dynamic was influenced substantially by the fact that in the middle of the nineteenth-century over 50 per cent of Tasmania’s population either were, or had been, convicts and just 20 per cent were free immigrants.⁴ Just as New Zealand’s landscape has been shaped by the peoples that have called it home, so

² Ibid, 253.
too has Tasmania been altered dramatically from its natural state by both Palawa and British settlers: land was cleared, first by Palawa for hunting and subsequently by settlers to create farmland, and a wide array of exotic species were introduced across the nineteenth-century (see Fig. 4).  

New Zealand’s first brown trout ova originated in Tasmania, and accordingly no study of the introduction of brown trout to New Zealand would be complete without addressing their prior introduction to Tasmania. In many ways this represents the far greater achievement, with ova successfully transported from the northern to the southern hemisphere across both tropical latitudes. In contrast, the relatively short trip across the Tasman, from Tasmania to New Zealand, seems trifling. This chapter seeks to provide a brief overview of the introduction of trout to Tasmania so as to give context to their introduction to New Zealand. It further offers a point of contrast from which to consider the introduction of trout to New Zealand in a wider colonial setting as well as a transnational setting. Because this is intended as a prequel to the New Zealand introductions it will conclude in 1867, when both the Otago and Canterbury Acclimatisation Societies were in communication with Tasmania to receive a supply of ova. The story will thereafter be picked up in each respective New Zealand regional chapter.

Fig. 4: Hobart Town, 1866

---

5 Boyce, *Van Diemen’s Land*, 215-216.
Repeated failures

From almost the moment of settlement, Australian settlers sought to bring trout to the waters they perceived to be barren. As early as 1841, Captain Frederick Chalmers of Brighton, Tasmania applied to a Scottish contact, Dr. Mackenzie, for a supply of salmon fry to bring back to Tasmania. Whilst the fry were never supplied, it is unlikely they would have survived the voyage as the understanding of transporting and propagating salmonids was only in its infancy at this time. The Royal Society of Van Diemen’s Land (subsequently the Royal Society of Tasmania) discussed the possibility of introducing trout at length in their July 1852 meeting and were the organisation most responsible for encouraging early attempts to bring trout and salmon to Tasmania. Unlike New Zealand, where the sole early and unsuccessful attempt to bring trout from Britain was Andrew Johnson’s 1864 effort, Tasmania went through a number of attempts before finally attaining success. Over the summer of 1852 and 1853 some 60,000 salmon and trout eggs were transported to Tasmania, with one newspaper erroneously concluding: ‘This curious experiment seems to have been accomplished successfully.’ Very little information is available as to the specifics of this introduction, but it is apparent that it was unsuccessful. In 1855, the Royal Society of Tasmania relayed the details of a discussion held between Tasmanian colonists about introducing salmon and trout that estimated the expense at about £500 and identified a reward on offer of £500 for the successful introduction from the Tasmanian legislature as well as another similar sum promised by a private individual in Sydney. The Royal Society of Tasmania was of the view that: ‘There seems to be every reason for believing that salmon would thrive quite as well here as

---

7 A discussion of the motivation behind acclimatisation in Australia and Tasmania can be found in Chapter Nine.
8 It is worth noting at this point that references to salmon, unless otherwise specified, refer to the Atlantic salmon (Salmo salar); P. S. Seager, “Concise History of the Acclimatisation of the Salmonidae in Tasmania”, Papers and Proceedings of the Royal Society of Tasmania, 1888, 2.
9 The French research that largely informed British pisciculture practices progressed substantially across the 1840s and 50s; Darin Kinsey, “Seeding the Water as the Earth: The Epicenter and Peripheries of a Western Aquaculture Revolution”, Environmental History 11, no. 3 (2006): 533.
10 This can be directly contrasted with the Royal Society of New Zealand, which did discuss trout from an ecological or biological standpoint, but took no active role in the actual introduction of trout to New Zealand; “Royal Society of Van Diemen’s Land.”, Courier, 21 July 1852, 3.
11 That it took numerous attempts is not necessarily surprising given the far greater distance between Britain and Tasmania as compared with Australia and New Zealand.
12 “Local Intelligence.”, Colonial Times, 1 February 1853, 2
13 This is similar to the reward of £250 offered by the Provincial Government of Otago for the successful acclimatisation of trout to the region; “Royal Society of Van Diemen’s Land.”, Launceston Examiner, 27 February 1855, 2;Untitled, Otago Daily Times, 15 June 1867, 4.
in the United Kingdom and that if fairly introduced most of the larger rivers opening on the north-west and southern coasts of the Island might soon become as productive as those of Scotland or Ireland.\footnote{48}

In 1861, Governor Thomas Gore Browne established the Tasmanian Salmon Commission and appointed Dr. Robert Officer, Morton Allport and William Ramsbottom, amongst others, as commissioners.\footnote{14} The Salmon Commissioners were appointed to facilitate and oversee the introduction of salmon and other desirable freshwater fish to Tasmania and, as part of their brief, to report back to the Tasmanian Government. It is clear they operated with a semblance of independence, but still this appears a far greater involvement of government than eventuated with the acclimatisation societies responsible for the introduction of trout to New Zealand. This organisation would act in a similar capacity to an acclimatisation society, overseeing the physical introduction, rearing and distribution of both trout and salmon.\footnote{16} A plot of 14 acres was obtained on the River Plenty, and ponds were constructed in order to receive future shipments of ova from England.\footnote{17} To a greater extent than was evident in New Zealand society, the initial focus of the Salmon Commissioners was solely on salmon with trout simply being a corollary.\footnote{18} However, once the success of trout in Tasmanian waters was realised, trout became a substantial part of their operation, and in fact trout proved far easier to establish and breed than salmon.

The early 1860s saw successive attempts to import ova to Australia aboard the \textit{Samuel Curling} (1860), \textit{Montreal} (1861) and \textit{Beautiful Star} (1862) fail, primarily as a result

\footnote{14}{As it transpired, Atlantic salmon would never become effectively naturalised in either Australia or New Zealand. For a period in the early 20th century they were believed to have been successfully introduced to a number of rivers along the south island of New Zealand’s east coast, however these populations eventually failed too. “Royal Society of Tasmania.”, \textit{Mercury}, 24 January 1860, 2.}

\footnote{15}{Report of the Tasmanian Salmon Commissioners, 20 August 1862, PQ639.3755TAS, Allport Library, Hobart, Tasmania, Australia.}

\footnote{16}{A Tasmanian Acclimatisation Society was also operational in this period, although it did not appear to play any role in the introduction of trout; “Introduction of Salmon.”, \textit{Mercury}, 23 November 1861; Rules and objects of the Tasmanian Acclimatisation Society, 1864, TLP570.6TAS, Hobart Reading Room, Linc Tasmania, Australia.}

\footnote{17}{Ibid.}

\footnote{18}{Searches for trout returned no mention of the Salmon Commissioners until after 1864, when trout arrived on the \textit{Norfolk}, indicating early meetings focused solely on salmon.}
of a lack of ice and the ova being subjected to heat beyond their tolerance. The nature of the difficulty is best described in a statement from the *Australian and New Zealand Gazette*:

To the uninitiated reader, the task of transporting salmon or trout ova may possibly appear a very simple affair. None but those actually engaged in it can have the slightest idea of the numberless difficulties attending the collection and impregnation of the ova – their safe package and conveyance in the hold of a ship during so long a voyage, in which every degree of temperature from tropical heat to severe cold, may be experienced. The ova are so frail and delicate that the slightest rough treatment – a sudden shake, contact with dirt, and so forth – destroys them by hundreds; so susceptible of atmospheric changes, that with all the care that has been bestowed on the matter and all the experience that has been obtained, it is still only by shipping very large quantities that a successful result, upon a practical scale, can be expected.

Such was the difficulty of transporting these ova from England that, as far as salmon at least were concerned, alternative sources of ova like the Atlantic regions of Canada (which would not require quite the same length of journey) were being contemplated. Similarly, sources of pacific salmon from the west coast of North America were also investigated, which caused Tasmanian pisciculturalists to assert the superior quality of British salmon. That such thought was given to alternative sources of ova also suggests that there was a serious question as to the feasibility of successfully transporting ova from England to the Antipodes.

**The Norfolk**

With almost no preceding public discussion, on 21 January 1864, Mr. James Youl, a Tasmanian living in England, ‘despatched in the Norfolk free of freight a large quantity of salmon trout to Victoria.’ This is an example of the individually organised nature of many instances of acclimatisation, where communication went through private rather than public channels. It further provides a point of contrast, as plans to introduce trout and salmon ova to New Zealand were frequently outlined in detail in local newspapers. Mr. Youl did, however, send an account of his preparations to the major London newspaper *The Times*, which stated:

> The manner of packing is as follows: - a couple of handfuls of charcoal are spread over the bottom of the box, then a layer of broken ice, after this a bed or nest of wet moss is carefully

---

19 Because this chapter only serves as a preface to the introduction of trout to New Zealand details of failed attempts will be minimal; “Introduction of Salmon.”, *Mercury*, 26 January 1863, 3; Copy of Journal of Mr. Alexander Black, in charge of salmon ova, in the S. Courling [sp.], 1860, PQ597.55BLA, Allport Library, Hobart, Tasmania, Australia.

20 “Exportation of Salmon Ova to Australia.”, *Mercury*, 21 March 1866, 3.

21 Ibid.

22 This is entirely consistent with the belief in the superiority of British species discussed at length in Chapter Eight; “Introduction of Salmon.”, *Cornwall Chronicle*, 21 March 1863, 3.

placed inside and well drenched with water; the ova are then very gently poured from a bottle which is kept filled with water; the box is now filled up with moss, and pure water poured upon it until it streams from all the holes; another layer of finely pulverized ice is spread all over the top of the moss; the lid is then firmly screwed down. As soon as this process is completed it is most desirable, in my opinion, that the boxes should be placed in immediate contact with ice.²⁴

In conjunction with some 90,000 salmon ova, Mr. Youl further brought with him two allotments of trout, one from Mr. Francis Francis and the other from Mr. Frank Buckland.²⁵ Mr. Youl’s account concluded by:

…hoping that these precious little globules may retain their vitality in their damp mossy bed until they arrive at the sunny clime and golden shores of Australia, so that when placed in their native element they may come forth leaping with delight in the limpid waters of the beautiful river Derwent…²⁶

Fig. 5: The Sailing Ship Norfolk, n.d.²⁷

The Norfolk (see Fig. 5) arrived in Melbourne in mid-April, whereupon eleven boxes totalling approximately 7000 salmon ova were removed to the care of the Victorian Acclimatisation Society.²⁸ The remainder continued on to Hobart Town on the

²⁴ “Salmon and Trout Ova for Australia.”, *Mercury*, 15 March 1864, 3.
²⁵ Ibid; The presence of ova from two different parties would eventually lead to a significant dispute as to who could claim to have been responsible for the introduction of trout to Australia.
²⁶ Ibid.
Victoria, arriving at 3pm on 20 April 1864. With the ice melting, the ova were quickly unloaded and transferred onto a barge pulled up the Derwent River by the Emu. Arriving in New Norfolk at 1am on 21 April, the barge and its contents waited until daylight, whereupon ‘gentlemen residing in the town and its vicinity vied with each other in their offers of assistance…’ That day an estimated 1300 healthy trout ova, along with a far greater number of salmon ova, were placed in hatching facilities on the River Plenty and covered by a tent so as to shield them from the sun. The Tasmanian Morning Herald, describing the facilities at a later date, wrote: ‘The Breeding and Rearing ponds are situated in a most picturesque part of the country, and are fed by the ever-flowing river Plenty, which is a tributary of the noble river Derwent.’ Public speculation as to the success or failure of the experiment was rife, yet on 4 May the ‘first trout burst its egg in Tasmanian water’, representing not only the first trout in Australia but also the first trout in the entire southern hemisphere. Astonishingly, when compared with the far shorter journey involved in the Canterbury Acclimatisation Society’s 1867 introduction from Tasmania, over 200 trout hatched from the Norfolk shipment.

As soon as the success of the introduction was apparent, the attention of the Salmon Commissioners turned to the establishment of a breeding population. In November 1864, the trout were transferred to a ‘serpentine pond seventy yards long, varying from ten to twelve feet in width, and leading into the round clearing pond… [where] they will be kept…till they become spawning fish which will probably be in the Autumn of 1866.’ In contrast, certain New Zealand societies, such as Auckland and Wellington, initially sought solely to stock their rivers via the importation of ova. The different approach is likely accounted for by the extreme difficulty and expense of receiving further ova from England as compared with the relatively minor difficulty

---

29 “Victoria.”, Mercury, 30 April 1864, 3.
30 “The Salmon Ova.”, Mercury, 20 July 1864, 3.
31 Ibid.
32 “The Salmon Ova.”, Tasmanian Morning Herald, 24 May 1866, 3.
33 Royal Commission on the Fisheries of Tasmania: Report of the Commissioners, 1883, CRO.Q639.2TAS, Allport Library, Hobart, Tasmania, Australia; Untitled, Cornwall Chronicle, 18 May 1864, 3.
34 “The Salmon Ova.”, Mercury, 20 July 1864, 3.
35 “The Salmon and Trout.”, Mercury, 23 November 1864, 3.
and expense of transporting ova either within New Zealand or trans-Tasman. Another difference with the approach undertaken in New Zealand is that the entirety of the stock was retained for breeding purposes in Tasmania, as opposed to the retention of a portion of the stock and the distribution of the remainder. Throughout 1865, the progress of the trout was reported in newspapers, and public anticipation at the prospect of being able to eat fresh trout in just a couple of years time was apparent.

To ensure the success of the trout and salmon experiment in Tasmania a further shipment of ova departed Britain on 8 February 1866, aboard the *Lincolnshire*. This introduction was once again in the hands of Mr. Youl, ‘the gentleman to whose assiduity, perseverance, and ingenuity the previous success was entirely due…’ The *Lincolnshire*’s bill of lading denoted ‘141 boxes of salmon, salmon trout and brown trout…; the boxes contained 87,000 salmon, 15,000 sea or white trout, and 500 brown trout ova.’ Of notable novelty was the construction by Mr. Youl of an immense double walled icehouse lined with lead and featuring an elaborate drainage system so as to maximize the probability of success. Upon arrival in Melbourne in late April 1866, the ova were quickly transferred from the *Lincolnshire* to the *Victoria* for transmission to Hobart Town where they arrived on 4 May, two years to the day since the first Tasmanian trout had hatched. Despite not being the first introduction of salmon or trout, public interest remained high: ‘Perhaps no event has engendered more interest than the arrival in these waters of the salmon ova and salmon trout…by HMSS Victoria…’ The process for transferring the fish was similar to the 1864 introduction, with ova placed in the hatching facilities and dead ova picked out. By 9 May, despite a belief that just 200 of the trout ova were viable, over 350 fish had hatched and by 6 June this number had swelled to upwards of a thousand.

---

Breeding success and trout to New Zealand

Mid-1866 was forecast to be the earliest point at which the fish from the Norfolk shipment might themselves spawn. The Salmon Commissioners, expecting a successful spawning season for the salmon trout, stated that `salmon trout ova can be had by persons who are ready to receive it in all parts of the colony when the spawning time arrives...`45 To date, the entirety of the Tasmanian trout efforts had been concentrated near Hobart. Yet in July 1866, plans were underway in Launceston to secure a portion of the spawned ova, hatch them out and retain them in ponds for 12 months before liberating them throughout the northern region.46 The Victorian Acclimatisation Society had received salmon ova via the Norfolk, but no trout, and it also sought to secure a supply of ova so as to stock Victorian rivers.47 The desires of not just the remainder of Tasmania, but wider Australia and even New Zealand, to secure trout ova rode on the successful spawning of the brown trout in the ponds on the Plenty. It was with some excitement that Mr. Morton Allport’s report to the Royal Society stated: ‘I have further to report that spawn has been successfully taken from one of the common or brown trout, and is now deposited in a separate box prepared for its reception...’48 The Tasmanian Morning Herald described this as ‘highly gratifying intelligence, which will be hailed with universal satisfaction by the public.’49 This was only the start of the process, however, as the ova had to be artificially fertilized by procuring milt from the male fish and simulating the natural breeding process by washing the milt over the ova.50 As this process had never been undertaken in the southern hemisphere the Salmon Commissioners were reliant on information passed on to them from British experts, affirming the imperial connection of the introduction of trout to Australia and New Zealand.51

In early August 1866, a shipment of fertilized ova spawned in Tasmanian waters was sent to the Victoria Acclimatisation Society.52 This represents the first generation of

45 Untitled, Launceston Examiner, 7 April 1866, 5.
46 “Acclimatisation.”, Cornwall Chronicle, 7 July 1866, 4.
48 “Royal Society.”, Mercury, 11 July 1866, 2.
49 “The Trout Ova.”, Tasmanian Morning Herald, 18 July 1866, 2.
50 “Royal Society.”, Mercury, July 11, 1866, 2.
51 Ibid.
52 Untitled, Mercury, 6 August 1866, 2.
Southern Hemisphere brown trout and the first time brown trout were sent to mainland Australia. Of the roughly 1000 ova, two thirds were placed alive into a pond fed by Ribbles Creek (see Fig. 6).\(^{53}\) Northern Tasmania had to wait a further month for their ova, yet on 11 September Mr. Ramsbottom arrived in Launceston with 700 to 800 ova and deposited them in the hatching boxes on the property of Mr. McArthur.\(^{54}\) Having enjoyed success beyond their expectations, Dr. Officer, of the Tasmanian Salmon Commissioners, wrote to the Canterbury Acclimatisation Society and offered them 500 to 1000 ova.\(^{55}\) However, not believing itself, nor its facilities, ready to receive ova at short notice the CAS decided to defer the offer until the following year. Such were the successes experienced in Tasmania that *The Times* wrote: ‘The English trout is now thoroughly naturalized in Van Diemen’s Land, so that the other colonies can stock their ponds from that source…’\(^{56}\) This alludes to the imperial nature of the introduction of brown trout to Tasmania, as it was seen as a base from which the remainder of Australia and New Zealand could receive fish and thus be improved.

![Fig. 6: The Salmon Ponds at Plenty, n.d.](image)

---

54 “Arrival of the Trout Ova at Launceston.”, *Launceston Examiner*, 12 September 1866, 3; As much of this story will be covered in depth in the pertinent New Zealand chapters this chapter will focus, to the extent that it’s possible, on the Australian side of the story.
By mid-1867, the intention of the Otago Provincial Government to undertake their own importation of trout and salmon from Britain was observed in Tasmanian newspapers, with the *Mercy* stating: “The Otago provincial government make light of the experience of others. They think they can get on better in the introduction of salmon and trout ova without us than with us.”\(^5^8\)

During this period, the actions of the Otago Acclimatisation Society were also reported readily in Tasmania and in August 1867 the Otago society gifted £150 to the Tasmanian Salmon Commissioners as a contribution towards the salmon and trout experiment they were undertaking. Remarkably, there was very little information published of the communication between the Canterbury Acclimatisation Society and the Tasmanian Salmon Commissioners that preceded the successful 1867 introduction of trout to New Zealand. In August 1867, the Mercury mentioned in passing that:

> It seems, in fact, that there are two applications from New Zealand, one from Canterbury, and the other from Otago. Mr. A. M. Johnstone [sic], of the Canterbury Acclimatisation Society, is coming up for a supply for that province, and will, we understand, be prepared to take down any for Otago that the Commissioners may have to spare.\(^5^9\)

With Johnson’s arrival in Tasmania imminent, to receive brown trout ova for Canterbury and Otago, this chapter concludes. The relative successes and failures of Johnson’s attempt will be dealt with from the New Zealand perspective in Chapters Three and Four.\(^6^0\) By 1867, trout were established in an increasing number of waterways around Tasmania but New Zealand’s brown trout story was just beginning.

**Unique Tasmanian characteristics**

Many of the notions that motivated the introduction of brown trout to Tasmania and New Zealand were common across British colonies. In both New Zealand and Australia, the absence of relatable species, as objects of sport and food, and the desire to recreate Britain whilst increasing the access to recreational opportunities formed the core motivations behind introducing trout.\(^6^1\) However, certain subtle differences are evident between New Zealand and Tasmania. One such difference is that the introduction of edible fish appears to have had a more overtly economic motive in Tasmania. In 1858, six years prior to the introduction of trout, the *Mercy* wrote: ‘The colonization of the *Salmonidae* would be productive of advantages even in a

---

\(^5^8\) Untitled, *Mercy*, 17 July 1867, 2.

\(^5^9\)Johnson was alternately described as being from Otago and Canterbury. “The Salmon Commissioners.”, *Mercy*, 24 August 1867, 3.

\(^6^0\) This attempt is best addressed in Chapters Three and Four, both as there are very few Tasmanian sources that shed any additional light on the matter as well as to avoid duplication.

\(^6^1\) As noted above, this comparison is made in greater detail in Chapter Nine.
commercial point of view, as an additional means of profitable export, to say nothing of excellent food for home consumption that would be abundantly supplied. Furthermore, in 1863 it stated:

If this experiment [introducing trout and salmon] should, therefore, be as successful as it proceeds, as it has proved in the beginning, it will be equal in its importance to one of our indigenous products, the timber of our forests, for instance, and will, in many respects be far more available. We shall no doubt, have to preserve our rivers, but they will still afford an abundance of employment in the fishing season, and what we procure from them can be shipped off at much less cost than most of our other articles of exports.

Subsequent to the introduction of salmon and trout, the actions of James Youl, responsible for the *Norfolk and Lincolnshire* introductions, were described as having: ‘conferred upon us [Tasmania] an immense benefit, both as regards the commercial value of those fishes and the recreation and gastronomic luxury…’ Such views demonstrate intent to commercialise trout and salmon in Tasmania and to establish them as an export good akin to timber or wool. This is entirely in keeping with the conception of colonies as the ‘larder of Empire’, although it was never phrased in quite such overt economic terms in New Zealand. Whilst there were some attempts made to commercialise trout in New Zealand through netting the larger lakes, this was more a case of realising a resource than it was a motivating factor in the introduction. The unique composition of Tasmania’s population given the high proportion of convicts may have in part influenced the weight placed upon the economic value of trout and salmon, as convicts did not migrate with the same conscious aspiration that free settlers did. As will be demonstrated, this aspiration to realise opportunities unavailable in Britain formed a core motivation behind the introduction of trout to New Zealand. Thus, it is possible that Tasmanian officials and those seeking the introduction of trout saw greater utility in trout and salmon as an export good than for domestic recreation because of the relative lack of free settlers. This is also consistent with subtly fewer references to the aspirational element of the introduction of trout to Tasmania as compared with New Zealand.

---

62 “Introduction of Salmon into Tasmania.,” *Mercury*, 8 June 1858, 3.
64 “Mr. James Youl.,” *Mercury*, 7 August 1866, 2.
Finally, there is an overtly patriotic aspect to the introduction of trout to Tasmania that was less present in New Zealand. In 1863 the Mercury wrote:

The patriotic efforts of the Government and people of Australia to acclimatize the various Asiatic and European animals, and to stock their rivers with fish of the salmon species, have induced an interest in their success, and created a desire in every well-ordered mind to aid and assist in all such laudable efforts.

Similarly, the Cornwall Chronicle called for the introduction of trout to the northern parts of Tasmania, stating: ‘…only the exhibition of a little patriotism, perseverance and public spirit is requisite to secure by small and simple means the extension of great blessings throughout the colony.’ In many ways, this distinction represents linguistic semantics, as numerous introductions were made to parts of New Zealand on the basis that they would be advantageous to both the region and the country; however, the terminology of patriotism was not used in the same way in New Zealand. One explanation for this is that the introduction of trout to Tasmania, and wider Australia, was more centralized than in New Zealand with much greater government involvement. The efforts undertaken in Tasmania were of national impact, whereas the subsequent trout breeding programs of Canterbury, Otago, Nelson and Wellington were all regional and their individual value to the nation was lessened by the fact that they were not alone in their actions. Overall, these distinctions are relatively minor and the commonalities in the introduction of brown trout to both Tasmania and New Zealand far exceed the differences.

**Conclusion**

The introduction of trout to Tasmania represents an astonishing achievement of nineteenth-century technology. Today, the 22,000km voyage can be accomplished in under 24 hours; however, in 1864 it was considered fast if the journey was made in 100 days. Because of the length of the journey and the fact that it crossed both tropics, with the heat that equatorial latitudes entailed, a significant number of attempts to introduce trout to Tasmania failed. However, through trial and error and by

---

66 The one reference I have found to acclimatisation having a patriotic element in New Zealand is from the *Daily Southern Cross*, which stated: ‘Acclimatising useful plants, shrubs, birds, fishes, etc, in new countries is a noble work, as well as a patriotic one.’; “Trout Ova.”, *Daily Southern Cross*, August 3, 1870, 4


68 “Acclimatisation.”, *Cornwall Chronicle*, 7 July 1866, 4.


70 Even in the very early years both Canterbury and Otago were distributing trout from roughly the same period.

71 This will be addressed in greater detail in Chapter Nine.
improving their processes and technologies, British and Australian pisciculturalists were able to pack ova into wooden boxes lined with wet moss and ice and ship them quite literally across the planet. The developments made in the transportation of trout to Tasmania were adopted in the later introduction to New Zealand, demonstrating the way in which imperial technology passed from Britain through the colonies. In most ways, the approach undertaken in New Zealand mirrored the Tasmanian approach, although the introduction of trout to Tasmania saw a greater level of government involvement as the Tasmanian Salmon Commissioners were appointed by the governor and reported to government.

The motivations behind the introduction of trout to Tasmania were also largely similar to those that informed their subsequent introduction to New Zealand. Tasmanian settlers, ex-convicts and free settlers alike, found an unfamiliar environment with a lack of relatable freshwater sport or eating fish and sought to improve their new home by the introduction of British fish. Whilst the notion of environmental improvement is consistent with nineteenth-century settler society, less evident in Tasmania is the aspirational aspect of the introduction of trout and in its place is a greater sense of pragmatism. This is in keeping with the population dynamic; particularly the relatively low proportion of free settlers who had migrated on the basis of realising opportunities they did not have in Britain. This dynamic also further explains the overtly economic element of the introduction of trout to Tasmania, representing a point of subtle difference from New Zealand. However, as noted above, the differences with New Zealand were subtle and were far outweighed by the similarities. Overall, the introduction of trout to Tasmania was critical to the establishment of brown trout in the Antipodes as the breeding program run by the Salmon Commissioners following the 1864 Norfolk shipment entrenched Tasmania as the central hub from which the remainder of Australia and New Zealand were supplied with brown trout.

73 Some importations of brown trout ova, particularly Loch Leven trout, were made directly from Britain to New Zealand but these did not transpire until after a significant number of introductions were made from Tasmania.
Chapter Three: The Introduction of Brown Trout to Canterbury

Introduction

Canterbury is a region on the east coast of New Zealand’s South Island, defined by the Southern Alps on its western border and the sea at its eastern boundary. From the sheer snow-covered mountains of the Alps, the landscape trends through foothills of beech forest into grassland plains. The landscape now differs vastly from how it would have appeared to early colonists, with plains that stretch for several hundred kilometres less vegetated and many of the native grasses replaced by European species. Permeating the plains are large braided rivers; namely the Waiau in the north, then the Hurunui, Waimakariri, Rakaia and Rangitata Rivers, which all find their headwaters deep in the heart of the Southern Alps. Interspersed between these larger rivers are a number of smaller rivers, streams and creeks, which either flow into the main arteries or find their own way into the Pacific Ocean. In addition, a great number of lakes are dotted throughout the alpine, subalpine and forested sections of the Southern Alps. Still water is less common on the plains, though brackish lagoons, most notably Te Waihora, or Lake Ellesmere, can be found along the coastline and were prized sources of food for local Māori.

Māori occupation in the region far preceded European, with Ngai Tahu the dominant tribal group in the South Island in the nineteenth-century century. By the mid-1830s, British whalers had arrived on Banks Peninsula, with a significant French component settling at Akaroa in 1839. Throughout the 1840s, a small number of British colonists established farms on the Canterbury plains, but settlement was sparse and sporadic. The modern city of Christchurch became the central hub of the New Zealand Company’s planned Canterbury Settlement, led by John Robert Godley. With land purchased from Ngai Tahu under Kemp’s Deed, the first ships arrived in Lyttelton Harbour in December 1850. The Canterbury Settlement’s early colonists were predominantly English Anglicans, with a small number of Irish, Welsh and Scots, and

---

2 This environmental change was not exclusively related to British colonists, as Māori destroyed many forests whilst hunting for moa. Pawson & Holland, “People, environment and the landscape since the 1840s”, 44.
the city was laid out in a grid pattern at the centre of which would come to sit the Christchurch Cathedral (see Fig. 7). Agriculture, particularly sheep farming, was critical to the growth of Canterbury in the early years and it remained this way until the falling price of wool persuaded many farmers to switch to dairy farming late in the twentieth-century. Despite the fact that the first Europeans to settle the area, the Deans brothers in 1843, were Scottish, Christchurch was the most identifiably English city in New Zealand, both in terms of the composition of its populace as well as the construction of its society and infrastructure. It is unsurprising, therefore, that it was also one of the regions most eager to see trout introduced to New Zealand.

Fig. 7: Christchurch, 1854

A desire for brown trout

The desire for trout in Canterbury preceded the settlement of Canterbury itself. Part of the advertising campaign of the New Zealand Company, which was seeking to elicit British migration to its various settlements, was to emphasize the untold possibilities of a new life in New Zealand. In this vein, it claimed that ‘real British trout of the purest breed were to dart athwart the mountain torrents.’ This appealed to prospective migrants for a great number of reasons, but perhaps the most significant to those seeking a new life was that it suggested the possibility of recreational pursuits, such as fishing and hunting, that were simply not available to them or people of their class in Britain. In essence, trout, the prospect of trout fishing and all that it signified, played an active role in eliciting migration to New Zealand. The belief amongst participants in the Canterbury Settlement that trout were to be introduced in the years following their own voyage may to some extent explain the public preoccupation with their eventual introduction. The leader of the Canterbury Settlement, John Robert Godley, went so far as to state: ‘If the Association goes on and flourishes it could not do better than send out by each ship that it charters, pairs of these animals until it receives intelligence that a sufficient number to make the propagation of the species certain have safely landed.’ So great was the desire of the Canterbury Association to champion this movement that they declared they would present a gold medal to ‘the colonist who should first be successful in introducing fresh-water fish into the lakes and rivers of the settlement.’ In 1853, with no indications that trout were en route, the editor of the Lyttelton Times, James Edward Fitzgerald, warned readers of the deluded claims of the Canterbury Settlement, including the likelihood of trout being introduced.

Yet a few years later the same James Fitzgerald, the previous Superintendent of the Canterbury Province, founder of the Press and former editor of the Lyttelton Times wrote to the Superintendent, William Sefton Moorhouse, in 1859 about the merits of

importing fish and game to the colonies. This letter elicited a response from Mark Stoddart, an early Canterbury authority on pisciculture, who disparaged the notion of importing Atlantic salmon due to their difficult breeding pattern but stated that: ‘Trout, and even the sea trout, could be easily accommodated with a nursery in the brook either at Purau or Charteris Bay, and I would look after them myself, and from thence they could be removed to other streams.’ In June of the same year, the Lyttelton Times printed an article noting the prospective commercial benefits to the introduction of salmonids. This does hint at a commercial element to the introduction, as discussed in Chapters One and Two, but this reference was anomalous. Interspersed between these local articles were reports of progress in the importation of salmonids to Australia or fish breeding techniques in Canada.

Increasingly, there was a real interest in the formation of an official Canterbury Acclimatisation Society, as suggested by Dr Julius Haast in 1862, to match those emerging in other parts of the country. However, it was not until early in 1864 that progress was made. As Mark Stoddart proclaimed: ‘A movement is now being made towards the formation of an acclimatisation society and subscriptions have been promised to a considerable amount.’ On 19 April 1864 a public meeting took place at the Christchurch Town Hall, where the resolution to form a ‘Canterbury Horticultural and Acclimatisation Society’ [henceforth CAS] was moved and carried. Of particular significance to the tale of the trout was the gift by the Provincial Government of four acres of land adjacent to the river Avon, where a house was built for the Society’s curator.

---

8 ‘Fitzgerald (emigration) to Superintendent – on fish and game to the colonies, 27/05/1859’, R22188105, Archives New Zealand, Christchurch, New Zealand.
10 “Colonization of Fresh Water Fish,” Lyttelton Times, 30 July 1859, 4.
12 “Town and Country News,” Lyttelton Times, 26 July 1862, 4; It is also important to acknowledge that, much like the transition of species from Europe to Australia to New Zealand, the concept of acclimatisation moved in the same pattern. Thus the first British acclimatisation society was founded in 1860, followed by Victoria in 1861 and then Nelson in 1863; see Paul Star, “T.H. Potts and the Origins of Conservation in New Zealand (1850-1890)”, (MA thesis, University of Otago, 1991), 122. McDowell contests that Nelson was the earliest NZ society, suggesting that Auckland in fact inaugurated in late 1861; R.M. McDowell, Gamekeepers for the Nation: the story of New Zealand’s acclimatisation societies, (Canterbury University Press, Canterbury: 1994), 19.
15 Lamb, Birds, Beasts and Fishes, 17.
in the Botanical Gardens between the Avon, the Hospital and Riccarton Road, and formed the base of operations for the introduction of brown trout (see Fig. 8). The hatchery's specific site is marked today by a commemorative plaque in the Botanical Gardens (see Fig. 10).

The voyage of Andrew Johnson (who would later become the CAS curator) to New Zealand in 1864 represents a significant moment in this story, as it was the first attempt to bring brown trout, amongst a myriad of other species, to New Zealand. Originating from Birmingham, Johnson announced his intention to transport

---

Fig. 8: Map of the CAS grounds, 1913

The voyage of Andrew Johnson (who would later become the CAS curator) to New Zealand in 1864 represents a significant moment in this story, as it was the first attempt to bring brown trout, amongst a myriad of other species, to New Zealand. Originating from Birmingham, Johnson announced his intention to transport

---

16 “Plan of Acclimatisation Grounds”, Christchurch City Libraries, [Accessed 6 October 2013: http://christchurchcitylibraries.com/Heritage/Maps/246963.asp]; Whilst this map occurs outside of the immediate period of study, it is the earliest available map of the CAS grounds and illustrates many of the facilities that were used in the original introduction of trout to Canterbury.

17 I have discovered some grounds to dispute that this was the first introduction of trout to New Zealand, as an article published in The Field suggests that in 1851 or 1852 'ova had been successfully carried to New Zealand….and that the gentleman who carried out the operation had claimed the reward offered by the government for the carrying out of this desirable purpose.’ However, as no further information is available, and it most certainly would have been if the introduction had been successful, it is likely that this was either a case of miscommunication or an outright lie; “Trout Ova Sent to New Zealand,” Mercury (Hobart Town, Tasmania), 31 May 1864, 3.
freshwater species to New Zealand on the *British Empire*, and ‘offer the salmon, trout, and lobsters to the government.’ Unlike other fish transportations Johnson attempted to transport live fish as opposed to ova, necessitating the establishment of elaborate slate-lined tanks on the *British Empire*. At some stage during the journey a piece of lead entered the containers, which were earlier warped during transportation to the docks, ‘deprivin Mr. Johnson of his last chance of success.’ Upon arrival into Lyttelton on 6 September 1864, the only fish that had survived the journey were a small number of goldfish. Johnson’s attempt was an abject failure; however, as the first attempt to bring brown trout to the country it remains a seminal moment in the history of brown trout in New Zealand.

The establishment of an official CAS with grounds and a curator facilitated a distinct acceleration in the introduction process. It brought people interested in procuring foreign fish species together for monthly meetings at the Christchurch Mechanics Institute, as well as legitimising their actions and providing a concentration of funding. Immediately, in September 1864, plans were made for alterations to fishponds at the CAS’s site. At this same meeting it was moved that the Canterbury province be asked to pledge £300 towards the introduction of freshwater fishes to Tasmania in the hope that they might subsequently be brought across the Tasman to New Zealand. Johnson’s salary was set at £150 per annum, with accommodation, for the initial three-month engagement. In March 1865, the alterations to the fishponds were well underway: ‘The ponds have been formed out of old gravel pits, and divided into compartments for trout, perch and tench, the loose character of the subsoil being made retentive enough without having recourse to the expense of puddling.’ Water entering the pond system was filtered through a double grating of perforated zinc filled with charcoal, ensuring a constant supply of appropriately clean water.

18 “Shipping Intelligence,” *Lyttelton Times*, 8 September 1864, 4.
21 Ibid.
22 Ibid.
24 Ibid.
25 Ibid.
Over the course of this period, members of the CAS were engaged in communication with the Tasmanian Salmon Commissioners regarding the fruits of their labour. At the November meeting a letter was read from Dr. Robert Officer of the Salmon Commissioners, which stated:

> With regard to the mode of transmitting a supply of salmon and trout to your shores there can be no doubt that they must be sent in the form of ova. […] Placed between layers of moist moss, in small wooden boxes, the ova will safely reach their destination at a very small cost.\(^{27}\)

In March 1866 a further letter from Robert Officer was received, stipulating that ‘the Commissioners have already very strongly objected to any division of the ova, until the fish has been finally and beyond all risk of disappointment established in one locality.’\(^{28}\) Despite this perceived delay Johnson stated in July that he expected to be in receipt of both trout and salmon ova within the next month, and accordingly he requested permission to dig an artesian well to supply water.\(^{29}\)

On 22 August 1866 Johnson wrote to the Provincial Secretary stating that he had received information from Hobart Town to say that trout ova were ready for transportation.\(^{30}\) At a special meeting of the CAS the following day, the letter from Robert Officer was read to the Council stating that the Tasmanian Salmon Commissioners believed they would be able to furnish the CAS with 500-1,000 brown trout eggs. Ultimately the CAS decided to delay the transmission of ova until the following year, when all work on the ponds would be completed and it would be possible to send someone to Hobart Town to receive the shipment personally.\(^{31}\) By May 1867, two wells had been sunk ‘thus rendering the ponds in point of purity and temperature all that can be desired.’\(^{32}\) The CAS was finally ready to receive ova from Tasmania, yet there appeared to be relatively little impetus from within the CAS to take the final plunge. This stagnation was evidently apparent to the public, as the *Lyttelton Times* received a letter in June questioning why ‘after so much public money has been obtained for acclimatisation, is the most important and long-expected event as the stocking of our rivers with salmon and trout to be treated with so much neglect

---

\(^{27}\) “Acclimatisation Society,” *Timaru Herald* 4 November 1865, 3.


\(^{30}\) ‘A.M. Johnson to Provincial Secretary - Trout Ova Available from Tasmania.’, R22678640, Archives New Zealand, Christchurch, New Zealand.


and indifference? Johnson immediately wrote in reply, adamantly denying that the CAS had given up on the project and implying that the actual importation was imminent. Nor were these idle words.

**The first trout in New Zealand**

The impending introduction dominated proceedings of the CAS during the middle of 1867. At its June meeting the ‘desirability of sending the Curator [Johnson] over to Tasmania was then discussed.’ There was little enthusiasm from the government to facilitate in funding the transportation, however they believed that the funds they had at hand might be sufficient. A motion was put forward that Johnson prepare an estimate of his travel costs to put to the CAS at a special meeting on 4 July. Johnson submitted his expense estimate, but was told by the CAS that the project would be deferred for the present, as the funds were simply not available and Robert Officer had not yet replied. It was not until a subsequent special meeting was held the following month on 8 August that the introduction of brown trout was finally given the go-ahead. Johnson accepted that the CAS could not fund his trip, so instead proposed an alternative arrangement: ‘That, instead of increasing the salary of the Secretary, he be allowed so much on every fish hatched over one month old, the expense of obtaining them to be borne by the Secretary.’ Johnson would, therefore, ‘proceed to Tasmania for the purpose of procuring salmon and trout ova at his own expense’ and be recompensed at a rate of ‘£1 per head up to £100 for every fish, salmon, or trout reared (i.e. six weeks old) and that the society, looking at the responsibility which Johnson hereby incurs, offers to give him £30 in advance of his salary towards defraying his expenses.’ The motion was moved, seconded and carried: Johnson was going to Tasmania, and trout ova were coming back to New Zealand.

Concurrently with Johnson’s plans preparations were taking place in the House of Representatives to ensure the protection of trout and salmon upon their eventual arrival to New Zealand. On 20 August 1867 a Bill for the Protection of Salmon and

---

38 Ibid.
Trout was introduced and read for the first time. Prior to departure, Johnson communicated with the Otago Acclimatisation Society and agreed to bring a selection of ova back for them in exchange for a contribution to his costs. It is likely that Johnson departed immediately following the special meeting on 8 August. By 16 September Johnson had made it to Hobart Town and was in discussions with the Salmon Commissioners. Johnson wrote back to the CAS that he was: ‘sanguine as to the prospect of obtaining a supply of trout ova both for the Canterbury and Dunedin Societies…’ On Saturday 21 September, Johnson returned to Lyttelton aboard the S.S. Rangitoto carrying with him the object of the CAS’s attention: trout ova. The Lyttelton Times carried a detailed description of the process by which Johnson transferred the trout:

The ova… were packed in moss in three boxes, containing 400 each. The boxes were perforated and placed in a larger one, also containing moss. The passage to Melbourne was very rough, and the boxes were much shaken. During this time the voyage to Lyttelton] the ova were carefully watched and a fresh supply of ice was placed in the outer box every two hours, and the moss kept saturated with the coldest fresh water procurable. On arrival in Otago, Johnson relinquished one of the three boxes to the care of the Otago Acclimatisation Society, who had assisted in facilitating his voyage. Thus when he arrived in Lyttelton, he had in his possession approximately 800 brown trout ova. The ova were immediately conveyed to the facilities prepared for them at the gardens and placed in the breeding box, ‘which [was] supplied with water from an artesian well by pipes.’ The enthusiasm resulting from this, the first successful introduction of brown trout ova to New Zealand, was shared by region and nation alike. As the Press noted: ‘A great number of visitors were present yesterday [Sunday 22 September] in the gardens, but Johnson wisely refused to allow the ova to be seen.’ The Press further concluded: ‘We can now congratulate the province on having over 500 live trout within it, and hope that the same success may attend Johnson in rearing the young fish as he has met with in bringing them here.’

40 Untitled, Press, 23 September 1867, 2.
42 ibid.
43 ibid.
44 ibid.
47 Untitled, Press, 23 September 1867, 2.
48 Ibid.
However, this early enthusiasm diminished with the increasing realisation of the extent of ova mortalities from the difficult voyage. After all the effort undertaken by the CAS to prepare suitable habitation for the ova, and the personal expense of Johnson in transferring the trout, there appeared to be a very real possibility that this entire enterprise would be for nothing. The report from the monthly meeting read: ‘day by day, they seemed to be getting bad.’ Yet, on 10 October, amidst growing doubt, one ovum hatched into what was the very first live trout in New Zealand. Coincidentally, the *Salmon and Trout Act 1867* passed the following day. In the days that followed the first hatching, Johnson observed a further young trout and, fortuitously, another was discovered amongst the shingle in the breeding box. The sum total of the efforts of the CAS, and specifically Johnson, was three young trout, hatched of the 800 ova brought into the acclimatisation grounds, equating to a mere £3 recompense for Johnson. Whilst three trout did not live up to the aspirations of the CAS, these were still the very first trout in New Zealand (see Fig. 9).

Colonists, many of whom had migrated to further their own lives, would soon be able to enjoy the trout fishing that was unavailable to them back in Britain. To many these three little fish represented a tangible connection to the personal progression they sought in moving to New Zealand. The popularity of the three young trout, no more than a few inches long, in newspaper articles in the following weeks was testament to the societal interest in brown trout. By the end of November 1867 the trout had consumed the entirety of the native fish in their enclosure, and appeared to scorn the grated liver proffered by Johnson as an alternate food source. As a result of this lack of food ‘they became dissatisfied with their nursery home, and one little fellow effected his escape by wriggling his way under the stones through a little unevenness in the bottom of the perforated slate grating.’ Much to the consternation of Johnson,

---

50 Ibid.
51 This Act is referred to both as the *Salmon and Trout Act 1867* and the *Salmon and Trout Protection Act 1867*. There is unusually little information about this Act in newspapers or the proceedings of the CAS, which I believe is a reflection on the detachment of the CAS (and the importation of brown trout) from the national Government; “The Past Session of the General Assembly,” *Lyttelton Times*, 21 October 1867, 3.
53 Ibid.
54 Ibid.
a further trout managed to escape in the same manner just a few days later. By the end of 1867 Johnson retained just one of the trout he was charged with raising, making the establishment of a breeding population an impossibility. The loss of two out of the three trout that hatched from that initial importation was a devastating loss to the CAS, and represented a major setback in the establishment of a permanent population of brown trout in the waterways of Canterbury.

Fig. 9: Brown trout centenary stamp, 1967

In early 1868 Johnson continued to raise ‘his solitary little trout,’ but the overall mood of the CAS regarding the importation had taken on a pessimistic air. A significant flood on 4 February 1868, in which the gardens were submerged and the remaining trout was washed out towards the river, did nothing to assuage these pessimistic feelings. However, in mid-February a stroke of luck befell the CAS: the escapees had been sighted. In Johnson’s own words: ‘With a faint hope of their recapture, a spawning race was prepared near their rearing home, and at the [spawning] season two of the lost trout were seen and secured.’ The brief burst of freedom seemed to have accorded well with the trout, as ‘the truant has greatly improved in appearance

---

55 Ibid.
58 Ibid.
59 There is an interesting discrepancy between information in newspapers and CAS records, and what Johnson himself stated. Johnson, as cited in Thomson appears to say at a later date that all three trout were lost in this flood. However, at the CAS meeting only one trout was stated as having been lost. Furthermore, the two trout that had previously escaped are unaccounted for in Mr Johnson’s statement. Whilst I have attempted to elucidate the truth, the reality with any work of this nature is that there are going to be things that simply cannot be definitively stated; this is one of them; Andrew Johnson, cited in G.M. Thomson, *The Naturalisation of Animals and Plants in New Zealand*, (Cambridge: Cambridge University Press, 1992), 213.
during his long absence." During this period the Otago Acclimatisation Society had also instigated their own importation from Tasmania, which is covered in detail in Chapter Four, with the ova arriving in Port Chalmers on 3 May. In mid-May Mark Stoddart urged the CAS to make arrangements to obtain some of season’s ova from Tasmania, and by June 1868 preparations were well underway to undertake a second Canterbury importation of brown trout from Tasmania.

Despite the belief amongst members of the CAS that they may have lodged its request with the Tasmanian Society too late to receive ova that year, by early September the ova were on their way. This importation took a very different form to the previous years’ efforts, with no member of the CAS travelling to Tasmania to receive eggs. Rather, the eggs were packaged by the Salmon Commissioners and entrusted to Captain Thompson of the barque Southern Cross. Arriving into Lyttelton on the morning of 16 September 1868 Captain Thompson was greeted by Johnson, who received approximately 1,000 brown trout ova and transported them by rail to the acclimatisation grounds. Over the course of the voyage both ice and cool fresh water were used to prevent the premature hatching of the ova. Where the previous year it was apparent to Johnson and others that numerous ova had gone bad, on this occasion hopes were much higher and developments took place almost immediately: ‘Very few of the eggs have gone bad since our last notice, and on Monday [21 September] hatching commenced.’ Just eight days after the ova were received, approximately 300 young trout had hatched at the acclimatisation grounds. The following day the CAS met and expressed its deep gratitude to Captain Thompson, agreeing to purchase and present to him a ‘piece of plate with a suitable inscription, of the value of £20, […] in recognition of his services.’ It was reported that: ‘out of the 1,000 trout ova received, 300 had already hatched; 200 of the remaining eggs were evidently spawned.

---

63 “Local and General,” *Star*, 26 June 1868, 2.
65 “Social Summary,” *Lyttelton Times*, 4 September 1868, 2.
67 Ibid.
69 Ibid.
later, and do not appear so healthy as could be wished.’ By 17 October their ranks had swelled to almost 500. Probably because of the number of trout that hatched, there was a greater demand for knowledge than the year prior, to the extent that the Lyttelton Times even dispatched a reporter to tour the grounds with Johnson in order to adequately inform their readers. The column that followed depicted the entire process from receipt of the ova through to hatching in precise detail that must have been of utter fascination to the curious readers dreaming of the day they could fish for them. The publication of the various accounts of the successful raising of the trout elicited several letters to the editor exclaiming great pleasure at the future prospects that this introduction would afford. These letters, and the overall interest in the introduction, is testament to the significance of trout not just to those directly involved in their introduction, but also to wider Canterbury and New Zealand society.

**Initial distribution and protection of the trout**

Now that the CAS was in possession of a small brood of trout, the topic for debate turned to how to distribute them once they reached maturity. At the November 1868 bi-annual general meeting of the CAS, Johnson recommended that: ‘100 should be retained by the society [from which to breed], and the remainder sold to members possessing suitable accommodation.’ There was a general belief amongst the committee that localities close to Christchurch should receive preference, and that there should be a restriction on the number of fish an individual person be permitted to take. The Lyttelton Times later noted: ‘Many of our streams are well adapted to trout, and if the young fry are allowed to remain undisturbed for a brief period after being set at liberty, their final establishment in the province may be regarded as certain.’ On 14 November, the CAS met again to attempt to resolve the distribution of trout. There are numerous discrepancies in the sources regarding the numbers of trout released; however, the following is what was planned by the CAS on 14 November:

100 fish would be retained by the CAS, 50 fish were to be turned out in the Avon between Wood’s Mill and the bridge, a further 50 fish were to be turned out in the upper waters of

---

71 Ibid.
73 “The Trout,” Lyttelton Times, 19 October 1868, 2.
74 “Correspondence,” Star, 9 November 1868, 3.
75 “Acclimatisation Society,” Lyttelton Times, 2 November 1868, 2.
76 “Acclimatisation,” Lyttelton Times, 4 December 1868, 2.
77 “Acclimatisation Society,” Lyttelton Times, 14 November 1868, 2.
the Avon, 20 fish were to be put into the creek of Mr. Peacock if it was found to be suitable, 30 fish were to be entrusted to the care of Mr. Stoddart to be turned out in Charteris Bay and the Purau streams, 40 fish were to be released into the upper reaches of the Heathcote, 30 fish were to be entrusted to Mr. Oakden, although it is not apparent precisely where they were released and finally, 40 fish were to be released into the Irwell stream near the Selwyn Railway Station. Although it is difficult to pin down specific dates on which trout were released, it is apparent that the process of distributing the trout commenced almost immediately. At the November meeting of the CAS, a letter was read from Mark Stoddart that stated he had observed one fish that had managed to escape the confines of the breeding box and had attained a size approximately double that of its brethren. This news likely motivated the CAS to immediately release 100 young trout into the acclimatisation ponds and a further 80 into the river Avon by the 28 November 1868. Following the local releases into the aforementioned sites, there was an increasing willingness to consider release sites further afield. For instance, Mr. Jennings of Rangiora requested and received a number of trout to be placed in the headwaters of the River Cam, which ran through his property. Similarly, on 31 December it was reported that Mr. Oakden had successfully turned out 20 fish into Lake Coleridge, and on 5 January 1869 that Mr. Jollie had also turned out 20 fish into a small stream that bordered his property just five miles from the mouth of the Rakaia. By the end of the year the precise figures, as noted by Samuel Charles Farr, were: ‘433 young trout turned out as follows – 164 in the river Avon, 12 in the Heathcote, 25 in the Purau stream, 40 in the river Irwell, 20 in Lake Coleridge, 20 in the Cam, 20 in the Little Rakaia, 10 in Mr. Jennings’ ponds at Rangiora, 10 in Mr. Peacock’s ponds at St. Albans, and 112 retained in the Society’s ponds.’ Trout, once simply a forlorn dream of colonists, were now spreading fast throughout the wider Canterbury region.

78 ibid.
80 “Local and General,” Star, 28 November 1868, 2.
Now that trout had been established in the province, it was imperative that the CAS sought to do everything in its power to protect them. At the January 1869 meeting, it was proposed that the CAS apply under the *Salmon and Trout Act 1867* for the protection of the main rivers into which trout were liberated. The Avon River above the Colombo Street bridge was considered to be the most worthy of protection, and it was resolved that whilst an application would be made in regard to the Avon, other streams would remain unrestricted for the present. On 24 March the Superintendent of the Canterbury Province, William Rolleston, instated the following regulation:

> No person shall, without the consent in writing, of the Superintendent, or in his absence, of the Provincial Secretary, fish in that part of the River Avon from its source to the Colombo Street bridge, in the city of Christchurch, or in the tributaries of the said river, and any person infringing this regulation shall be liable to a penalty of £50, or to such portion only of such penalty as the justices before whom such penalty is sought to be recovered shall think fit.

This order was explicitly made for the protection of the young trout that now resided in the Avon and represents one of the earliest angling regulations in the country. Until 1875, when fishing was eventually permitted, there was only one application to the Superintendent for an exemption. By mid-July 1869, the two ‘truant trout’ that the CAS retained from the first three brown trout to hatch in New Zealand, now almost

---

83 Author’s own collection.
85 Ibid.
87 Mr. Travers applied in March 1872 so that he might continue his scientific research into native fish; “Local and General,” *Star*, 23 March 1872, 2.
two years old, had begun to prepare their spawning beds.\textsuperscript{88} Those hatched from the 1868 importation ‘continue to thrive and grow, and have frequently been seen in the exact spots where they were turned out in the various rivers.’\textsuperscript{89} The sight of trout in central Christchurch evidently stimulated thoughts of angling for in September 1869 the first offenders to be tried under the \textit{Salmon and Trout Act 1867} were summoned before the court. George Howard, Henry Howard and Alfred Fielding were alleged to have illegally fished in the river Avon between the Colombo and Victoria bridges.\textsuperscript{90} The charge was proved, however, the offenders were deemed ignorant of the restriction and accordingly were let off with a caution: they were all aged about eleven.

Poaching was not the only threat to trout: trout themselves were apparently a threat. In the mid to late nineteenth-century there existed a culture, both in England and New Zealand, of netting out particularly large trout on the basis that they would destroy stocks of young trout.\textsuperscript{91} As Francis Francis, the renowned English pisciculturalist, stated: ‘If you have many of these big beasts, be wise; they eat or drive away the small ones. … They are worse than the pike, because they inhabit the same waters as the smaller fish…’\textsuperscript{92} Similarly, Mr. J. Hammond opined: ‘I will state that if you wish to keep a good stock of fish for sport in any river, you must not have any large fish and no more male fish than you can possibly help.’\textsuperscript{93} When a particularly large trout was seen on regular occasions, permission could be sought to net the fish for the benefit of the fishery. In certain instances large trout were intentionally destroyed in New Zealand, but more frequently they were celebrated and publicly displayed after capture.

Trout in New Zealand were also susceptible to predators, and from the moment they were introduced measures were adopted to protect the fish from predation. On 2 April 1870, the \textit{Press} suggested: ‘… in order to protect the trout in the River Avon the Provincial Secretary be requested to authorise the police to shoot or otherwise destroy
all shags within the city of Christchurch. In May 1871, to ensure successful spawning, the CAS even decided to offer a reward for the destruction of shags: ‘It is necessary, if we desire to successfully stock the ponds and rivers of the province with trout, that this bird should be got rid of.’ The publication of accounts of shot shags and found to have trout inside them fuelled the desire by anglers and acclimatisers alike to eradicate the shags: ‘A large shag was shot by Mr. William Ure as it was fishing in the Otepopo River. Upon opening its stomach, no fewer than 26 fine young trout were found in that dismal sepulchre. We need hardly point out that if our streams are to be stocked with trout, the shags must be destroyed. The greatest instance of destruction in Christchurch occurred in September 1889, when: ‘Two Christchurch sportsmen had a day’s shag shooting at Ikoraki, near Lake Forsyth.’ As the Star continued to report: ‘The two sportsmen, lying in ambush, were enabled in one day to destroy no less than 134 adult birds, male and female.’

Similarly, where eels visibly coexisted with trout, these too were speared, netted or trapped out. When particularly large eels were seen it was frequently reported in the papers: ‘Several of these monsters have lately been seen up the river, no doubt paying a visit to the spawning beds of the trout.’ Johnson even went so far as to import special galvanized eel pots from England in order to catch eels. It is important to remember that both shags and eels are native species whose existence predates even Māori colonisation. Brown trout, contrastingly, were an introduced species that had only existed in New Zealand for a very short period. In essence, they were themselves colonists. This approach to native species, which will be addressed in far greater detail in Chapter Eight, is perhaps, more than anything else, indicative of the mind-set of the colonists. To actively exterminate a native species, in order to encourage the growth of an introduced species, there must be a deeply held belief in the superior value of the introduced species.

98 Ibid.
Canterbury as a regional and national hub for trout distribution

Despite the successful liberation of trout into the rivers around Christchurch, and the retention of breeding stock in the acclimatisation grounds, the CAS continued to import brown trout ova for many years to come. In October 1869, the Otago Acclimatisation Society received a significant shipment from Tasmania and allocated approximately 500 ova for Canterbury at a cost of £9 8s 6d.\(^\text{102}\) Because of the premature hatching of these fish, the actual transportation from Otago to Canterbury had to be delayed until the fish were sufficiently mature to survive the arduous journey.\(^\text{103}\) As a result of this impending increase in stock, the CAS placed an advertisement in the local newspapers on 20 November stating: ‘The Acclimatisation Society will shortly have live trout for sale at £2 per dozen.’\(^\text{104}\) The trout from Otago were brought up to Canterbury on the Maori on 2 December, minus a dozen taken by Messrs Sleek and Howell to be liberated into the Tengawai River near Timaru.\(^\text{105}\) Within three weeks of placing the advertisement for the sale of trout, the CAS had sold out. In the end, it was resolved that some 24 dozen would be distributed amongst 13 applicants on the proviso that they state the intended destination of the trout prior to taking possession.\(^\text{106}\) Through such a system the CAS would be able to furnish the province with a significant supply of brown trout, whilst recouping the costs of acquiring and raising the trout. However, only four-dozen of these fish could be distributed, in early January 1870, before the young trout undertook a mass exodus and escaped into unfinished ponds leading to the Avon.\(^\text{107}\) Johnson believed that the trout escaped through openings in the ground made by eels and, while 15 trout were recaptured, a great number remained at large.\(^\text{108}\) The CAS was able to see a silver lining though: ‘although this accident has caused considerable financial loss to the society and disappointment to the intended purchasers of the fish the public will not suffer, as the loss will tend to stock the Avon more fully with trout.’\(^\text{109}\)

---

\(^{102}\) “Local and General,” Star, 9 October 1869, 2; “Acclimatisation Society” Star, 13 November 1869, 2.

\(^{103}\) “Acclimatisation Society,” Star, 23 October 1869, 2.

\(^{104}\) Untitled, Press, 20 November 1869, 3.

\(^{105}\) Untitled, Timaru Herald, 4 December 1869, 2.

\(^{106}\) Untitled, Press, 11 December 1869, 2.


\(^{109}\) Ibid.
In mid-1870 the stocks of the CAS began to swell through natural means. Although the CAS had earlier believed there would be little chance of breeding the two original trout hatched in 1867 and now residing in the CAS ponds, in late August 1870 Johnson was able to successfully hatch ova from these fish.\textsuperscript{110} These fish represent the first brown trout to have been spawned in New Zealand and the first generation of wholly New Zealand trout. Furthermore, although the CAS was sceptical as to the viability of ova spawned from the 1868 batch of trout, these too were able to hatch out successfully.\textsuperscript{111} By 12 October 1870 the number of fish in the acclimatisation ponds had grown from approximately 15 to almost 200.\textsuperscript{112} Despite the scare at the end of 1870, it seemed that the CAS would once again be able to fulfill the requests to furnish the province with a supply of brown trout. As a result of this successful spawning the CAS once again proposed to sell trout for £2 per dozen.

At this time, only the Otago and Canterbury societies were breeding trout, so unsurprisingly the CAS began to receive requests from acclimatisation societies as far afield as Auckland for a supply of brown trout.\textsuperscript{113} While the CAS ultimately expected to be able to oblige these societies, priority was given to local requests. Communication continued with the Auckland Acclimatisation Society and, on 26 May 1871, ‘it was resolved that the Auckland Society be informed that should the spawning be successful the Canterbury Society will offer kindred societies an opportunity of purchasing ova.’\textsuperscript{114} Spawning again took place over the middle of the year and 632 ova placed in the ‘trout-house’ hatched into young trout, along with numerous natural births bringing the total to 1,823.\textsuperscript{115} Despite persistent requests from Auckland, on 15 November 1871 approximately 100 young trout were sent to the Wellington Acclimatisation Society on the \textit{S.S. Tairua}.\textsuperscript{116} They arrived the following day and were liberated into a tributary of the Hutt River.\textsuperscript{117} The Wellington society stated that they were: ‘indebted to Canterbury for the supply, and although the society there are compelled to charge for them, we should, but for their exertions, have had to

\textsuperscript{111} Ibid.
\textsuperscript{112} “Local and General,” \textit{Star}, 12 October 1870, 2.
\textsuperscript{113} “Local and General,” \textit{Star}, 29 October 1870, 2.
\textsuperscript{114} “Acclimatisation Society,” \textit{Star}, 27 May 1871, 3.
\textsuperscript{115} “Acclimatisation Society,” \textit{Press}, 21 October 1871, 2; Farr, 10.
\textsuperscript{116} “Local and General,” \textit{Star}, 16 November 1871, 2.
\textsuperscript{117} “Local and General,” \textit{Star}, 21 November 1871, 2.
wait for years for a supply and to have incurred a cost which we are afraid our citizens would scarcely have been ready to meet.’118 The only other society to receive trout from the CAS in 1871 was the Wanganui Acclimatisation Society, who received 50 trout.119 The Canterbury society was, therefore, not simply facilitating the introduction of brown trout on a local scale but on a national one as well (see Fig. 11).

<table>
<thead>
<tr>
<th>Province</th>
<th>Number of trout received from CAS, 1868-1873</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auckland</td>
<td>0</td>
</tr>
<tr>
<td>Canterbury</td>
<td>3,738</td>
</tr>
<tr>
<td>Hawkes Bay</td>
<td>250</td>
</tr>
<tr>
<td>Marlborough</td>
<td>0</td>
</tr>
<tr>
<td>Nelson</td>
<td>20</td>
</tr>
<tr>
<td>Otago</td>
<td>250</td>
</tr>
<tr>
<td>Taranaki</td>
<td>100</td>
</tr>
<tr>
<td>Wellington</td>
<td>250</td>
</tr>
<tr>
<td>Total</td>
<td>4,608</td>
</tr>
</tbody>
</table>

Fig. 11: Provincial distribution of trout by CAS, 1868-1873120

Locally, the success of the introduction was becoming more apparent by the day as frequent sightings of increasingly large trout were reported in the newspapers. In February 1872 ‘a number of fish, from one foot to one foot and a half in length, have been seen in the Avon for some days past between Victoria and Colombo bridges.’121 Spurred on by this success introductions continued into virtually every waterway in Canterbury. In April the CAS determined to release ‘50 fish into the north branch of the Waimakariri […] 50 in the Ashley, 25 in Lake Forsyth [with costs defrayed by the Superintendent], and 25 in the river Hororata [with costs defrayed by Mr. Bealey].’122 Over the winter spawning period, the behaviour of the trout was even more apparent than previous years, with several prominent spawning beds observed in the Avon itself.123 From the mid-1870s, as a means of supplementing the numbers of trout bred in their ponds (see Fig. 12), the CAS also began catching and stripping mature and

118 Ibid.
121 “Local and General,” *Star*, 29 February 1872, 2.
wild trout on their spawning route in the Avon. As the *Press* reported: ‘Three
members of the garden committee of the Acclimatisation Society have with assistants
been for some nights past assiduously engaged in netting the river as far as Ilam for
the purpose of stripping.’ As a result of the spawning in the acclimatisation
grounds alone there was a net gain of nearly 2,000 fish. Of these, some 1,493 trout
were sold at a rate of £10 per 100 fish. Otago received approximately 250, Napier
received 250, and the Taranaki Provincial Government received 100 trout. Amongst the unspecified distributions, several were also for more distant areas in the
Canterbury province such as Timaru or Orari.

Fig. 12: The fish ponds in the acclimatisation gardens, Christchurch, 1907

124 “Artillery Ball – A meeting of the ball,” *Press*, 9 August 1876, 2.
125 “Local and General,” *Star*, 16 October 1872.
126 Ibid.
127 Ibid.
Curatorial woes and private pisciculture

The breeding, hatching and stocking of rivers by the CAS continued to take place annually, and was, by the early 1870s, a relative surety. Although the CAS appeared to be operating in a cohesive and successful manner for several years, behind the scenes it is was apparent that some tension was building between Johnson and several members of the CAS.¹²⁹ In mid-1873 Johnson was reprimanded by the Garden Committee, a division of the CAS, for failing to follow their instructions and was told to maintain a diary so as to demonstrate that he had complied with the requests of the Garden Committee.¹³⁰ By 1874 the idea of terminating Johnson’s employment was mooted, but Farr observed that despite his indiscretions he was ‘an old servant’ of the Society.¹³¹ At the August 1875 CAS meeting, Dr. Campbell, a committee member, alleged that Johnson had been mishandling the trout ova during the stripping and hatching phase and marking any boxes of viable eggs as ‘taken by the curator’ and boxes of unviable ova as ‘taken by Dr. Campbell.’¹³² The Star of 1 September contained an account much more favourable to Johnson, in which it alleged that Dr. Campbell, on behalf of the Garden Committee, had attempted a new plan for stripping the eggs from the fish against the express recommendations of the curator.¹³³ It concludes by stating: ‘We are not interested on one side more than the other; but when a man is trodden upon and snubbed in the way we know Mr. Johnson to have been, it is time the affair is made public.’¹³⁴ This matter was of sufficient public interest that the Star even featured a poem on the situation written, endearingly, from the perspective of a trout: ‘We’ll vote for Johnston [sic], one and all/ Campbell we’ll cork in bottles small/ Long life to Johnston [sic], long may he/ prosper, mid fishes of the sea.’¹³⁵ On 7 September the meeting was resumed and Dr. Campbell reiterated his previous allegations, as well as suggesting that Johnson had been insubordinate and acted in instances without the permission of the CAS, before putting forward a motion occurring outside of the immediate period of study, this is one of the earliest available photographs of the CAS fish ponds.

¹²⁹ The Garden Committee was an internal subsidiary of the CAS that dealt with specific aspects of acclimatisation including managing the funds of the society and fish-rearing. By 1875 it consisted of the most vocal and powerful members of the society; “Acclimatisation Society,” New Zealand Herald, 6 February 1872, 3; “Acclimatisation Society,” Star, 10 February 1874, 3.
¹³³ Untitled, Star, 1 September 1875, 2.
¹³⁴ Ibid.
¹³⁵ “The meeting of the fishes,” Star, 7 September 1875, 2.
for the dismissal of the curator. On 9 September Farr suggested that diminishing subscriptions to the society were a result of the insubordination of the curator and that he had heard from several persons that they would not renew their subscription whilst Johnson was the curator. Johnson’s rebuttal was read to the society, but it was insufficient. Johnson, the individual most responsible for the first trout in New Zealand, was unanimously dismissed from his position as curator of the CAS.

The CAS immediately began to receive applications from candidates to replace Johnson, and by the 29th of September they had received over 20 applications. In the meantime it is apparent from the minutes of the September meeting that Dr. Campbell oversaw the roles typically set out for the curator. In October the Garden Committee, approved by the CAS, appointed Mr. John Beck of Winton the new curator of the society. Mr. Beck remained in office until May 1877, at which point he resigned as a result of feeling impaired in his ability to complete his work by the demands of the CAS. Beck’s replacement, Mr. A. von Pullnitz, was appointed on a one-month trial basis, at the conclusion of which he was not hired. Stability was restored, however, in the appointment of the then assistant curator, Mr. Starkiss, who held the role until he resigned in 1896.

Linked to the CAS’s decision to terminate Johnson’s employment was the belief that subscriptions to the society and the public support for the society were dwindling in part because of Johnson. This was confirmed at the 1876 AGM, where the chairman stated: ‘For some years the subscriptions to the society amounted to over £300, last year they only reached £88, and every morning on getting up the public could hear evidences of the good done by the society in the importation of so many different kinds of birds. They also heard of trout fishing and the spread of pheasants, &c, throughout the province.’ The attempt to recoup upon the cost of introducing trout through subscriptions, and the sale of fishing licences and trout ova is probably the
greatest argument for an economic motivation to the introduction of trout. However, it relates to their subsequent distributions rather than the initial introduction. Whilst some concessions were made when supplying their fellow societies, those orders placed by private individuals were very much treated as a commercial transaction. It is perhaps with this in light that in 1876 the CAS rescinded a resolution on their books preventing ova from being sent out of the province, and replaced it with the restriction that no more than 20 per cent of ova shall be sent out of the province. The ova sent out of the province also attracted a higher price (£5 per 100) when compared to those sold within Canterbury (£3 per 100).

Johnson’s involvement in the rearing and propagation of brown trout did not cease when he was terminated as curator of the CAS. As the *Star* reported in July 1876:

> Mr. Johnson... has for some time past been preparing a section of land at Opawa, for the purpose of hatching and rearing fish, and will this season make the first effort on his own account. By the kindness of the owners of several private streams he has recently obtained a large quantity of trout ova, and no doubt his experience in such matters will enable him to bring a major portion of them to life.

By September 1876 Johnson was advertising in the local newspapers the sale of trout ova at a rate of £2 10s per 100, conveniently undercutting the CAS. He began to distribute his trout throughout the country, sending some 400 to Wanganui and 200 to Picton. There were, however, some concerns regarding the legality of Johnson’s operation at Opawa. There is no doubt that he had the express permission of the landowners from whose streams he was stripping trout, but it was not clear whether ownership of the stream equated to ownership of the trout within said stream. Accordingly, on 2 July 1877, a letter written by Johnson was read to the City Council seeking ‘permission to obtain trout ova from the river [Avon] within the city boundaries.’ This issue was raised at the September meeting of the CAS where a member noted that: ‘young trout were being sold by a person not connected with the society at £2 10s per 100. To obtain ova for this purpose the law must have been

---

145 Overall there was no overt attempt to profit through the sale of ova, licenses or subscriptions, simply to restore the costs the CAS was expending.
146 The South Canterbury Acclimatisation Society received their supply of 1,300 trout in 1876 at half price.
147 This is explicitly mentioned during the meeting, but I have been unable to find mention of this rule in the rules and regulations of the society; “Acclimatisation Society,” *Star*, 30 August 1876, 2.
148 Ibid.
149 “Local and General,” *Star*, 27 July 1876, 2.
152 “City Council,” *Press*, 3 July 1877, 3.
broken…’ In response, Johnson wrote to the editor of the *Press* stating: ‘the trout are the property of the owners of the water and that they have a perfect right to angle or take ova at any time they please, or give permission to others, without any licence from the society, whose right for granting fishing licences can merely extend to such portions of those rivers where the government have reserved land on each side.’ This view is heavily influenced by the English approach to land and trout ownership that Johnson would have grown up with in Birmingham and can be contrasted with his subsequent statement that: ‘It certainly was not the intention of the promoters of the Society that it should… [add] to the criminal population by bringing into action the objectionable features of the English game laws.’ The legal position at the time is not entirely clear as New Zealand was still determining a number of these issues and not merely deferring to the English status quo. The *Salmon and Trout Act 1867* vested ultimate regulatory control of both trout and salmon in the government, but no mention of the actual ownership of the fish is made. When this debate recurred in 1879 Johnson wrote to the *Press* and stated: ‘It adds another injustice to one whom the society was first indebted for the very trout they now seek to prevent my propagating.’ Ultimately, the Colonial Secretary deemed that: ‘Mr Johnson has no permission from Government to take trout ova from the Avon or any other river in Canterbury.’ This did little to impinge on Johnson’s activities, but simply meant that he could not procure the ova from wild fish. No issue would exist with privately breeding trout.

Johnson was not content to just continue breeding brown trout: in March 1877 he was the first recipient in New Zealand of American brook trout (*Salmo fontinalis*) and in 1883 he was the first recipient in Canterbury of rainbow trout (*Onychorhynchus mykiss*). Despite disagreements with the CAS, Johnson’s enterprise was well received both locally and nationally and he became one of the most significant sources of trout ova within New Zealand (see Fig. 13).

---

155 Ibid.
156 “*Immense Destruction of Young Trout,*” *Press*, 11 June 1879, 3.
158 The CAS, refusing to purchase rainbow trout from Johnson, first acquired these fish by netting a stream that had been stocked via Johnson – a magnificently roundabout means to an end; “*News of the Day,*” *Press*, 5 March 1877, 2.
**Fishing and fisheries management**

With trout evident in several waterways around Canterbury from 1873 onwards, public discourse turned to fishing for them. This was, after all, one of the most fundamental motivations for introducing trout. They were not simply to act as a British decoration for the New Zealand environment, as in the case of British song birds, but to provide colonists with a quintessentially British recreational opportunity that many could not realize in Britain: trout fishing. In January 1873, Mr. C. A. Marsack wrote to the *Press* questioning whether the restriction on fishing in the Avon wasn’t a ‘totally unnecessary interference with the natural rights of persons living on the river.’

Certain people, as the *Star* affirmed, apparently agreed with Mr. Marsack: ‘A tradesman in Christchurch states that, on Sunday morning last, when crossing Madras Street bridge, he saw a person who was fishing in the river hook a large trout, but, on finding he was observed, he made off down Kilmore Street.’ In September 1874 the Otago Acclimatisation Society instituted an open season for trout.

---


161 “Local and General,” *Star*, 19 August 1874, 2.
fishing (December-February) on the Water of Leith, which likely formed the catalyst for the CAS’s subsequent decision to open the Avon to fishing. There was little prior discussion by the CAS, indicating the reactionary nature of the decision. On 30 December 1874:

The council of the Acclimatisation Society have determined to ask the Superintendent to proclaim the months of January, February, and March, 1875, a time when trout may be taken by rod and line in the River Avon, by persons holding licences from the society, under the condition that any fish caught not exceeding eight inches in length is to be returned to the river.\(^{162}\)

The fee for a licence was fixed at £1, payable to the CAS.

Little is known of this first season, perhaps because simply purchasing a licence did not inherently confer upon a person the right to fish anywhere.\(^{163}\) Licence holders remained subject to property law, and were unable to fish on private land, strongly limiting the scope of the angling available to them. In light of this limitation the CAS passed a resolution that: ‘The Superintendent be requested to take steps for throwing open the river Avon in the Domain and Hagley Park open for fishing under licence from the Society.’\(^{164}\) On 15 October 1875 the chairman of the Domain Board gave permission to licence holders to ‘fish on and after 1\(^{st}\) November next, on the right hand bank of the river, from the Fendalltown bridge to the stone bridge on the Riccarton Road.’\(^{165}\) Despite the Avon being opened to trout fishing for a three month period, still little information emerged with regard to the success or failures of prospective anglers. This can be clearly contrasted with the Otago season of the same period, which was heavily reported in newspapers.

At this point in time, with the exception of the *Salmon and Trout Act 1867*, there was very little national consistency between the rules and regulations of different regions. In 1877 the CAS received a copy of the conditions for trout fishing in the Nelson region and slightly amended these to form the first intensive regulations for angling in Canterbury.\(^{166}\) From this point onwards, the majority of regulations around the country followed a similar format. Most significantly, the CAS deemed the remainder of the rivers of Canterbury to contain sufficient stock to open, thus vastly increasing

---

the scope of angling in the province. It is probable that this was in response to complaints from the public and licence holders about the limited opportunities available in the Avon. By October 1878 the newspapers had begun to report upon the successes of local anglers: ‘Of the numerous fishers out yesterday there were few who did not succeed in scoring their first kill. … The flies used were the “Black Gnat,” “Hare’s Lug,” and a black hackle with tinsel body.’\textsuperscript{167} Henceforth, coverage of angling in Canterbury was consistent, with reports at the commencement and conclusion of each season or upon the capture of a particularly meritorious trout or bag of trout.

Interest in angling grew consistently with annual licence sales increasing each year and by January 1879 some community appeared to be developing amongst anglers in Canterbury. A meeting was organised, chaired by Dr. Campbell ostensibly to oppose the practice of angling with groundbait, but also to form a Canterbury Anglers Society.\textsuperscript{168} There was unanimous disagreement with this practice and a petition was put to the CAS to amend the regulations such that: ‘no fishing for trout should be allowed in any rivers in this district, save with a natural or artificial fly and a natural or artificial fish.’\textsuperscript{169} On considering this at their subsequent meeting, it was suggested that the CAS might ‘pick out the laws of the best fishing society in England and adopt them.’\textsuperscript{170} This proposition raises a very interesting point regarding the ethos and accessibility of angling in New Zealand. Possibly because of the genuine desire to create a more egalitarian angling experience, not predicated by wealth or land ownership, New Zealand lacked substantial legal infrastructure surrounding trout and angling at this stage.

The \textit{Salmon and Trout Act 1867} provides the basis for subsequent regulations, but prescribed no actual regulations.\textsuperscript{171} Resultantly, there was widespread poaching and most of the regulations that came to be put in place, with a few obvious exceptions (such as releasing fish under a certain size), were reactionary. Some legal clarification, however, came through the courts. In October 1878 Richard Walker was

\footnotesize
\begin{itemize}
\item \textsuperscript{167} “Local and General,” \textit{Star}, 17 October 1878, 2.
\item \textsuperscript{168} “Trout Fishing,” \textit{Star}, 20 January 1879, 4.
\item \textsuperscript{169} Ibid.
\item \textsuperscript{170} “Acclimatisation Society,” \textit{Star}, 26 February 1879, 4.
\item \textsuperscript{171} \textit{Salmon and Trout Act 1867}.
\end{itemize}
charged with fishing with a net in the river Avon, and it was deemed by the court that, in correspondence with the regulations under the *Salmon and Trout Act* that: ‘all rivers must be held to be protected from fishing with nets larger than those used for whitebait, from their source to their outflow…’\(^\text{172}\) At the January 1880 meeting of the CAS, it was decided that a committee be formed in order to ‘draft regulations for river fishing, which the council will recommend to Government to proclaim.’\(^\text{173}\) This committee met on 13 February 1880 and set out a variety of new regulations aimed at preventing the practice of poaching.\(^\text{174}\) Across this period the Angling Society became the means by which questions of ethics and regulations were put to the CAS, and either put forward collectively or solely by the CAS to the government to be made into law. The Canterbury Anglers Society also proved to be the primary driving force behind the instigation of a pronounced early angling culture in Canterbury. At its meeting at the conclusion of the 1880/1881 fishing season in April 1881 several prizes were put forward, including a trout rod, to be competed for in the following season.\(^\text{175}\) In 1888 the Society held its first big competition on 17 December, with prizes available for the best basket of trout caught by various means as well as the heaviest individual fish amongst other categories.\(^\text{176}\) This was not to everyone’s taste, however, with one letter to the editor of the *Press* suggesting: ‘…no sportsman would so debase himself and his gentle art as to fish for a prize…’\(^\text{177}\) Despite this, their competitions, held annually on 16 December (the anniversary of the Canterbury province), proved very popular and were testament to the popularity of angling in the region.\(^\text{178}\)

In order to enforce the regulations that were being put in place, it was necessary to have agents of the society spread throughout the province as provided for in the *Salmon and Trout Act* 1867. Thus, in 1873 the CAS appointed three rangers to protect the fisheries and other interests of the Society.\(^\text{179}\) Within just two years the number of

\(^{172}\) “Magistrates’ Court,” *Press*, 23 October 1878, 3.


\(^{177}\) “Trout Fishing,” *Press*, 4 November 1884, 3.

\(^{178}\) “Anglers’ Society’s Competition,” *Star*, 17 December 1889, 3.

\(^{179}\) Arguably the focus here was not so much on trout, but other game; “Acclimatisation Society,” *Press*, 13 March 1873, 3.
rangers appointed had risen to 76.\textsuperscript{180} The role of a ranger was mostly a voluntary role, with their primary function being to enforce the laws and regulations surrounding introduced species.\textsuperscript{181} Given the vast spread of trout throughout the Canterbury Province, it was impractical for the CAS to monitor every area, however there were often locals who were more than happy to do their bit to prevent poaching. Poaching took numerous forms, from illegally netting fish, to cross-lining, and even the use of dynamite.\textsuperscript{182} The fervent desire to prevent poaching and the destruction of the fisheries provided the basis for many regulation changes. In the event of a poacher being tried under either the \textit{Fisheries Conservation Act 1884} or the \textit{Salmon and Trout Act 1867}, it was up to the CAS to prosecute the case. There was some expense to the CAS in prosecuting these cases, although court costs were typically recouped in the instance of the accused being found guilty.\textsuperscript{183} To the consternation of the CAS, the actual fines did not go to the societies that had introduced the trout and were responsible for protecting the fish, but to central government. Both the Otago and Canterbury societies petitioned government to relinquish the fines to the local acclimatisation society, but it is unclear what the result was.\textsuperscript{184}

Perhaps the greatest threat to the trout, although a threat not without benefit to settlers, was the opening of the larger lakes to commercial netting. Netting for trout had been occurring commercially in Wakatipu and Wanaka since 1885 and in December 1886 regulations were put in place for the netting of trout in the lakes of North Canterbury, which granted the CAS ‘liberty to let the right of netting in the lakes for the season.’\textsuperscript{185} Implicit in this was the commercial sale of harvested trout.\textsuperscript{186} This suggestion was met with strong opposition by anglers in Canterbury and a petition signed by 60 members of the Canterbury Anglers’ Society requesting the CAS not to issue licences for the sale of trout was presented to the CAS at their

\textsuperscript{180} Annual Report of the Canterbury Acclimatisation Society 1885, R10224220, Archives New Zealand, Christchurch, New Zealand, 7.
\textsuperscript{181} “Acclimatisation Society,” \textit{Star}, 26 April 1873, 3.
\textsuperscript{182} Cross-lining was where two parties stand on opposite sides of the river with their lines connected and a series of flies strung between them that are then placed directly in front of fish; “Local and General,” \textit{Star}, 21 August 1882, 3; “Local and General,” \textit{Star}, 14 February 1880, 2; “Canterbury Anglers Society,” \textit{Star}, 10 January 1880, 3; “News of the Day,” \textit{Press}, 21 March 1881, 2.
\textsuperscript{183} “Using Mussel for Trout-fishing,” \textit{Star}, 1 November 1886, 3.
\textsuperscript{185} “Acclimatisation Items,” \textit{Star}, 18 December 1886, 3.
\textsuperscript{186} While this does prove that there was a commercial value in trout, it does not speak to any motivation in introducing them. Rather it is more akin to commercialising an existing resource.
September meeting. The CAS failed to institute a netting season for trout several times, but at the February 1890 meeting of the CAS a motion was carried ‘to net the lakes and to issue licences for the sale of trout.’ Finally, in the Gazette of 25 September, the regulations for netting trout in the Lakes of Canterbury were published. Much like conventional trout fishing, the licence fee was £1 and there was a minimum size limit, although in this instance it was fish of three pounds or less that must be returned. The right to net the lakes was let by tender and in October 1890 a tender sent in by Mr. Warnes, a Colombo Street fishmonger, was accepted and he was granted the exclusive right to sell trout in North Canterbury. This practice continued, despite frequent opposition, in select lakes into the twentieth-century.

**Conclusion**

This study of the Canterbury region has resulted in a narrative in which any regional characteristics unique to the Canterbury region will be highly apparent. It is clear that trout were a significant and desired species, in which Canterbury society broadly, and not just those directly involved in the introductions, saw true value. Nothing in the Canterbury narrative contradicts the fact that the introduction of trout was motivated by a desire to improve the New Zealand environment, and in so doing to improve the lives of the colonists themselves, as outlined in Chapter One. It is clear that the introduction of trout was inherently British, as will be expanded upon in Chapter Nine, but there is little to suggest any specifically Anglican or English traits in the introduction of trout to Canterbury.

Canterbury was the first region to introduce trout, but this is more likely a product of being an organized settlement with a favourable environment that was allowed to develop freely without significant military tension with local Māori, resulting in a stable society. There is a very subtle suggestion the Canterbury was very slightly less egalitarian than the remainder of the country, which is discussed in Chapter Nine.

---

190 Ibid.
However, the absence of more distinct English traits is in keeping with James Belich’s argument, in Michael King’s words, that upon arrival in New Zealand ‘the British abroad tended to drop their narrower ethnic identities to form a new “Us” while confronting a shared “Them”’.  

A more compelling case can be made for the environmental factor of having a stream that was, visually at least, ideally suited to trout in the centre of Christchurch, as it would have served as a daily motivator to those engaging in the attempts to introduce trout. Otago, which was just one year behind Canterbury in the introduction of trout, has a similarly placed stream in the Water of Leith, whereas both Auckland and Wellington, who were many years behind the southern regions, did not have the same freshwater influence right in the heart of the city. One final notable absence from the narrative, when compared with northern regions, is Māori. Subsequent to 1890, there are a number of instances where local Māori men were charged with poaching, but there was little or no Māori involvement in, or vocal opposition to, the introduction itself. This can be contrasted with more northern regions, and particularly Auckland, where Māori assisted the distribution and protection of trout.

Over the course of twenty-three years, the Canterbury region underwent a dramatic ecological transformation from being entirely devoid of salmonids in 1867 to having a flourishing population of brown trout spread throughout the rivers and lakes by 1890. Across this period, the CAS itself also underwent a process of distinct transformation and maturation. At its commencement, its primary concern was the importation and propagation of beneficial foreign species and it operated largely independent of government. However, the availability of trout created opportunities for anglers and poachers alike, and out of necessity the CAS were forced to build infrastructure, both legal and physical, to protect its piscine charges. This necessitated a much closer involvement with government in order to achieve a legal grounding for the Society’s regulations and it was in this period that much of the bases for New Zealand’s modern day fishing regulations were formed. Finally, although Johnson parted ways with the CAS in 1875, he continued to have a huge input into Canterbury’s pisciculture as the owner of the only private and independent trout hatchery in the region until his death.


194 It is impossible to state that definitively, as the vast majority of sources surveyed are Pākehā, but in other regions around the country where Māori voiced opposition to the introduction of trout it was reported in the newspapers.
in 1916. If the success of brown trout in Canterbury is to be attributed to just one individual, it is to Johnson. As a result of the falling out between the CAS and Johnson, he has largely been written out of the story of brown trout in New Zealand. It is a testament to the value of in-depth primary research that Johnson’s vital contribution to the introduction of brown trout in Canterbury has been recovered.

195 Johnson’s efforts in pisciculture earned him a spot in Alfred Cox’s 1886 *Men of Mark of New Zealand*, so he did at least receive acknowledgement at the time; Alfred Cox, *Men of Mark of New Zealand*, (Christchurch: Whitcombe & Tombs Ltd, 1886), 117-118.
Chapter Four: The Introduction of Brown Trout to Otago

Introduction

Otago lies at the southern end of New Zealand’s South Island and is a very geographically diverse region.1 The Southern Alps continue to exercise their influence over this area; however, in the southern half of the province they have fragmented from the distinct mountain range that is evident further north and now form a dense succession of sheer mountains and coastal Fiords at the western edge. Travelling east pockets of foothills are broken up by river valleys, the largest of which are fed by the biggest lakes in the region: Lakes Wanaka, Hawea and Wakatipu in the central South Island, which all ultimately feed the Clutha River, and Lakes Te Anau and Manapouri on the edge of Fiordland, which feed the Waiau River. Smaller rivers stem from craggy valleys in bush or tussock-lined hills and flow predominantly east or south, joining the larger rivers or making their own way to the sea. A great number of smaller lakes and tarns are scattered throughout the region, with particular concentrations in Fiordland in the west and the Maniototo in the east.

As throughout the entire country, Māori occupation of Otago long preceded British arrival with Ngāi Tahu the dominant iwi. Europeans settlers first arrived in the area in the 1790s for sealing, with whalers following and establishing a number of shore stations in the 1830s. Dunedin, the largest city in the region, was a planned settlement designed in 1846 by the New Zealand Company as a place for members of the Free Church of Scotland (see Fig. 14).2 Approximately half the settlers were Scottish, with their number augmented by a strong Scottish influx through the 1850s.3 The region’s economy was heavily agricultural, but the discovery of gold, and the subsequent gold rush in the 1860s, saw Dunedin’s population and wealth boom with thousands of prospectors of various nationalities flocking to the region. Those remaining after the

1 Because of the strong connection between the Otago and Southland regions in the nineteenth-century, they will be addressed together in this chapter.
2 Lynne Richardson et al (eds), Bateman New Zealand Encyclopedia, 6th ed. (Auckland: David Bateman Ltd, 2005), 193.
3 Brad Patterson, Tom Brooking & Jim McAloon, Unpacking the Kists: The Scots in New Zealand, (Dunedin: Otago University Press, 2013), 56
gold rush were scattered across the region and Otago retained its distinctly Scottish Presbyterian dynamic.  

\[\text{Fig. 14: Dunedin, 1862}\]

**An early inkling**

The poetic references to trout were lacking in Otago as were the various schemes to bring the fish to the region that characterized the early years of other settlements. The majority of early references to trout in Otago related to the attempts to introduce trout and salmon to Tasmania. That the *Otago Daily Times* and *Southland Times* were reporting on the introductions taking place in Tasmania indicates that it was a matter of public interest, and yet the introduction to Otago was not of immediate concern to the settlers of Otago themselves. This is not to say that there was not a desire for trout but simply that that desire took longer to dawn on Otago colonists. Their priorities may be surmised from the following quote: ‘…the clear and limpid brook, leaping gaily along over its pebbly bottom, pleasantly suggestive of trout and fly-fishing (too

6 Untitled, *Southland Times*, April 25, 1866, 2.
indolent and luxurious a sport, by the bye, for a colonist)…”7 This quote speaks to the differences between the Presbyterian and Scottish Otago settlement and the Anglican and English Canterbury settlement, where references to angling aspirations were frequent. Tinned trout was available for purchase in Otago from 1862, suggesting that trout were an equally important source of food for Scottish colonists as they were for English.8 Indeed, when trout was discussed in Otago newspapers, it was often more about putting food on the table than generating recreational opportunities.9

Despite the relative lack of public interest, in February 1862 the *Otago Daily Times* ‘drew attention to the necessity of the formation of an acclimatisation society…’10 But it was Southland, not Otago, that on 7 September 1863 held a public meeting for those interested in establishing an acclimatisation society centred in Invercargill.11 In response the *Otago Daily Times* stated: ‘The Southland people have set an example to the inhabitants of this province worthy of being followed.’12 The Southland Acclimatisation Society (SAS) was immediately supported by government through the allocation of £200 for the introduction of salmon ova, £50 for the introduction of British game and birds and £100 as a donation to the SAS.13 However, the sole achievement of the SAS in inaugurating their society at such an early date was in motivating the instigation of an Otago Society. On 14 January 1864 a meeting was held and the Otago Acclimatisation Society (OAS) was formed.14 Within just two weeks the OAS had subscriptions to the effect of £160.15 On 9 March 1864 the OAS held their first meeting and a code of rules was settled upon.16 By 1866 the SAS and OAS had been joined in the province by both the Wakatip (subsequently the Lakes District Acclimatisation Society – LAS) and Oamaru Branch Acclimatisation Societies (OBAS).17

---

7 “Dunedin, Saturday, October 30, 1852.”, *Otago Witness*, 30 October 1852, 2.
8 Untitled, *Southland Times*, December 5, 1862, 3.
9 The focus on trout as food was probably informed by the Scottish Highlands famine the decade before; “Shingles from an Old Roof.”, *Otago Daily Times*, 8 July 1864, 6.
11 “Acclimatisation Meeting.”, *Southland Times*, 8 September 1863, 2.
13 Untitled, *Southland Times*, 26 October 1863, 2.
17 Untitled, *North Otago Times*, 9 November 1865, 2.
The creation of the OAS increased public desire for the introduction of trout to Otago, as the OAS gave it a constructive outlet. In July 1864 the *Otago Daily Times* stated: ‘Our friends in Australia are making strenuous and successful efforts to locate the royal salmon and lordly trout in their river, and probably we too may some day come in for a share of those excellent things in fishes.’ Later that same year, the *Otago Witness* also ran an account of Andrew Johnson’s first unsuccessful attempt to introduce trout to New Zealand that stated: ‘One of the grand features of New Zealand is its immense and beautiful rivers… It is a most serious lapse on the part of old Dame Nature that these rivers should be destitute of fish of any importance…’ The majority of references to fish, however, were with regard to salmon. Whilst there were frequent references to salmon in Canterbury also, the focus on salmon in Otago appeared almost to the exclusion of trout. This may be reflective of the geographic distribution of salmon in Britain, with higher concentrations running in the waterways of Scotland than England.

With news crossing the Tasman in 1866 of the successful propagation of both trout and salmon in Tasmania, the prospect of obtaining trout for Otago strengthened considerably. From its inception until 1867 the OAS had made little progress in the introduction of fish, focusing instead on introducing British birds to New Zealand. Prior to the gold rushes of 1861-1869 Otago had a relatively austere economic climate, and it is likely that lack of capital hampered acclimatisation efforts in this period. The Otago newspapers increasingly began to focus on the actions of the more proactive Canterbury Acclimatisation Society in preparing ponds for trout and communicating directly with the Tasmanian Salmon Commissioners.

A letter published in the *Otago Daily Times* by Pringle Stoddart, who would play a role in the introduction of trout to Otago, observed: ‘Our Canterbury neighbours are very far in advance of us in acclimatisation efforts, and they have now several English fish of the

---

18 “Shingles from an Old Roof,” *Otago Daily Times*, 8 July 1864, 6.
19 “Experiment to Acclimatise Fish in New Zealand Rivers.,” *Otago Witness*, 24 September 1864.
20 A counter argument exists insofar as salmon were, more so than any other fish, the domain of the English gentry. In general, however, the influence of salmon appears to have been stronger in Scotland.
hardier sorts introduced…’

Even the SAS, which had lain dormant for 3 years, appeared more active, communicating with the Tasmanian Salmon Commissioners in April 1867.

With the increasing activity of the region’s acclimatisation societies, and a public desireous of the introduction of sportfish, in 1867 the Superintendent of Otago, James MacAndrew, made contact with the Governor of Tasmania, Thomas Gore Brown, requesting ova for the Otago province once they were available. Morton Allport, of the Salmon Commissioners, responded: ‘I regret to say I see no immediate prospect of being able to supply ova from our fish… If the Government of Otago desire to lose no time in the introduction of the fish they should obtain ova direct from England.’

In its annual report of 1867, the OAS disclosed that its grounds contained a pond for waterfowl, but that the intended second pond for the reception of fish had not yet been built. Accordingly it is unlikely that it would have been in a position to receive trout ova, were they offered from Tasmania. The OAS did, however, carry a motion that £250 of the £1000 allocated to the introduction of salmon and trout by the Provincial Government be forwarded to Tasmania as a ‘subscription to the general fund of the Salmon Commissioners.’

**False Starts**

As a Tasmanian shipment appeared unlikely ‘the Provincial Government have decided to send Home direct to England for salmon ova [and presumably trout also]…’ The Provincial Government also established a £250 reward for the successful acclimatisation of trout to the Province. The OAS, however, opposed the Provincial Government’s intention to circumvent its involvement. Instead it wanted the funds allocated to send a man to Hobart to receive ova, rather than risk the far longer journey from London. As it transpired, this was exactly what Johnson, as curator of the Canterbury Acclimatisation Society, decided to do – travel to Tasmania.

---

25 “Acclimatisation Society.”, *Southland Times*, 26 April 1867, 2.
27 Ibid.
29 This was motivated by a desire to support the Tasmanian efforts on the basis that they would subsequently provide Otago with ova; Ibid.
31 Ibid.
himself and bring back brown trout ova. Stopping in Dunedin en route, Johnson informed the OAS that if it was happy to make a contribution then it was welcome to share in the introduction. The OAS agreed to Johnson’s terms and moved that: ‘this Society will guarantee to Mr. Johnson the sum of £30 sterling towards his expenses in bringing ova from Hobart Town, and also £25 in terms of Mr. Wilkin’s letter…’ By 11 September, with the arrival of ova imminent, works were undertaken to supply the second pond at the OAS grounds (see Fig. 15). The water was supplied by the Water of Leith via a four-inch pipe into a clearing tank in the acclimatisation grounds and from there into the fish breeding boxes.

On 18 September the *Otago Daily Times* published the news that Otago anglers and acclimatisers alike desired: ‘The Acclimatisation Society are to be congratulated on the news which we publish amongst our telegraphic intelligence to-day. Mr. Johnson is returning from Tasmania, with 400 trout ova for this Province…’ The trout ova arrived that afternoon and were deposited in a breeding box in the acclimatisation grounds, thus commencing in earnest the trout hatching experiment in New Zealand. With the exception of Johnson’s aforementioned 1864 experiment, which met with abject failure, these ova were the first brown trout ova introduced to New Zealand (beating the Canterbury ova of the same shipment by some three days). Johnson and Mr. Carrick, of the OAS, proceeded to separate the perished ova from the healthy ova before placing the healthy ova ‘into the earthenware breeding box, upon gravel prepared by long boiling…’ Almost immediately the optimism regarding the Otago introductions diminished, with the *Otago Daily Times* just two days later reporting: ‘We learn that at the conclusion of the examination of the Trout Ova by Mr. Johnson and Mr. Clifford [the OAS curator], on Wednesday evening, it was found that the proportion of ova in a perfectly healthy condition was not nearly so large as at first appeared to be the case.’ Yet the Province remained hopeful that ‘Otago will be the

---

33 This is discussed at length in Chapter Three and will only be discussed in this chapter insofar as it pertains to the Otago introductions.
34 Acclimatisation Society.”, *Otago Daily Times*, 13 August 1867, 5.
35 Ibid.
36 Untitled, *Southland Times*, 16 September 1867, 2.
37 Ibid.
40 Ibid.
first of the provinces to have trout introduced to its streams. The reports from the OAS as to the success or failure of the experiment were scarce, and it was not until its annual meeting for 1868 that the OAS finally addressed the failed introduction of trout from the previous year. The council ascribed the failure of the experiment to the delays departing Hobart, the unusually rough passage from Hobart to Melbourne and the delays in Melbourne that necessitated the ova being placed in an ice house for a week. It is interesting, however, to note that the Canterbury ova were placed into breeding boxes a full two days later because of the time Johnson spent in Otago, and yet three ova managed to hatch. While it is possible that it was simply luck that resulted in three Canterbury ova hatching, the question arises whether the breeding grounds prepared in Canterbury may have been better suited to the task.

By early 1868 direct communication was well underway between the Provincial Government of Otago and English pisciculture authorities. On 25 January 1868 the Celestial Queen left London for Otago containing 22,000 salmon ova, 4,000 sea trout ova and 1,500 brown trout ova (packed in moss by esteemed British pisciculturalist, Frank Buckland, himself). Evidently there was some uncertainty from the British end as to whether the OAS or the Provincial Government would receive the trout ova, necessitating the OAS to seek clarification from the Provincial Government. Mr. Youl, who administered the shipment, suggested that: ‘As to the brown trout … I would most earnestly entreat the Government of Otago to give them to the Acclimatisation Society to deal with…’ The following day, 4 April, the OAS got the news they were hoping for from Superintendent James Macandrew:

I have the honour to inform you that the Government will be glad to avail itself of the offer of the Acclimatisation Society to undertake the hatching of the brown trout ova and salmon umbra, now in transit, per Celestial Queen, from London, the Society to have sole control over the ova.

Finally, on 2 May, after a passage of 113 days the Celestial Queen docked at Port Chalmers carrying the precious cargo. The proceedings at the unveiling of the ova

---

43 Untitled, Otago Daily Times, 1 April 1868, 4.
44 Ibid.
45 “Salmon and trout ova for Otago.”, Otago Daily Times, 21 January 1868, 4.
49 “Acclimatisation Society.”, Otago Daily Times, 4 April 1868, 5.
50 “Customs Entries.”, Otago Daily Times, 4 May 1868, 4.
were heavily reported. Initial news of the importation was not promising, with all of
the various coarse fish shipped live having ‘ceased to be.’ Upon dismantling the ice
house: ‘The state of things…when Mr. Dawbin, lantern in hand, knelt over the hole,
was decidedly not pleasant to the eyes of non-experts in the transport of ova.’ With
little hope, the salmon and sea trout were placed on the clipper Surprise to be
transported to the Provincial Government facilities at Waiwera, the brown trout were
placed on a whaleboat for transportation to the OAS, while eleven boxes were left on
the Celestial Queen for transport to the Canterbury Acclimatisation Society.

The failure of the previous year had necessitated improvements to the OAS facilities:

Great pains had been taken to secure the coolest and purest stream obtainable for the purpose,
and by the kindness of Captain Boyd, the Society have been permitted the use of a piece of
ground on his property, on the banks of a mountain stream… A little higher up the creek, the
bush has been cleared, and a reservoir formed by the construction of a dam across the bed of
the creek… The water in the reservoir is sufficiently high above the hatching boxes, to flow
through a pipe into a small cistern, in which its temperature is reduced by the introduction of
ice. From thence, in an ingenious arrangement, it flows into filters of earthenware… Through
these elaborately prepared filters the water percolates slowly into the hatching cisterns, which
are rectangular boxes about four feet long, 12 or 14 inches wide and nearly that depth. …
Each of them contains a bed of carefully prepared gravel, in which the ova are placed, which,
for greater security are covered with slates well cleaned before being used.

In total 329 ova were deposited into one breeding box and the remaining potentially
viable ova were distributed into the other two boxes on the off chance that some
might hatch. The salmon and sea trout, in the possession of the Provincial
Government, were deemed to be in largely good condition by Mr. Dawbin and were
contained in the hatching house at Waiwera. It is apparent that the agents of the
Provincial Government were not as attentive in the preparation of their facilities as
those of the OAS, as the breeding boxes in their system were leaking profusely on the
day the ova were received, resulting in an excessive flow of water travelling through
the hatching boxes. The reports pertaining to this shipment focused on the ‘greatly
more important experiment as to Salmon…’ and references to the fate of the sea
tROUT were secondary and scarce. Overall, the most significant feature of the Celestial
Queen introduction was how little information was relayed to the wider public. It is

51 “The Salmon and Trout Ova.”, Otago Daily Times, 4 May 1868, 5.
52 Ibid.
53 Untitled, North Otago Times, 5 May 1868, 2.
54 Ibid.
55 “Acclimatisation Society.”, Otago Daily Times, 8 May 1868.
56 Now known to simply be a sea going (anadromous), but genetically identical, type of brown trout;
57 “The Salmon and Trout Ova.”, Otago Daily Times, 8 May 1868, 4.
58 Ibid.
clear that the introduction of sea trout was a failure, but it is not known precisely why it failed. This stands in stark contrast to the Canterbury introduction of 1867, and appears incongruous with the intensity of reporting on the *Celestial Queen*’s arrival.

The attempts to introduce trout to Otago motivated the SAS to act. On 5 June 1868 it sought tenders for the construction of a trout pond. Contractors were found and ponds on the Makarewa River were completed at the beginning of September. Wasting no time whatsoever, the SAS organized its own importation of ova from Tasmania on the *Prairie* under the charge of Mr. Howard. The *Prairie* arrived in the New River on 8 September and upon being deposited in the hatching boxes it was reported that ‘the proportion of dead eggs was very trifling.’ By 2 October approximately 400 of these ova had hatched into young trout and were liberated into

---

60 Untitled, *Southland Times*, 5 June 1868, 3.
61 “Pisciculture in Southland.”, *North Otago Times*, 15 September 1868, 3.
62 “Oamaru Times Office.”, *North Otago Times*, 8 September 1868, 2.
63 “Pisciculture in Southland.”, *North Otago Times*, 15 September 1868, 3; “Oamaru Times Office,” *North Otago Times*, 8 September 1868, 2.
the rearing ponds. Remarkably little ceremony preceded or followed the success despite the fact that these fish were the first trout to be introduced to the region. By December a number had escaped from the Society’s rearing ponds into the Makarewa River and the SAS retained just 50 trout for breeding purposes. As a result of this loss it was ‘proposed to get one more shipment of trout ova from Tasmania in the coming spring, from which will then enable the society to have a supply of young fry for annual distribution in all the small streams of the Province.

The Free Trader Introduction

In mid-1868 the OAS finally arranged to undertake its own introduction from Tasmania. On 8 August Clifford left Dunedin en route to Hobart Town. Whilst in Lyttelton he made arrangements with the Canterbury Acclimatisation Society, which was itself sending boxes to Tasmania to receive ova, for Clifford to oversee the Canterbury boxes also. Clifford’s travel to Tasmania was smooth, and he returned on the Free Trader, arriving at Port Chalmers on 14 September 1868, with four boxes containing at least 800 ova (see Fig. 16). Of the 800 ova given to Clifford at the Tasmanian Salmon Commissioner’s ponds on the River Plenty, only 49 eggs were dead upon arrival in Dunedin. The healthy ova were subsequently placed into the gravel hatching boxes in the creek on Captain Boyd’s property, renovated as per Clifford’s recommendations. Public excitement was not as evident as it had been in Canterbury in 1867, perhaps as a result of the failed attempts that preceded this shipment. Yet, on Monday 28 September 1868 one of the ova hatched into the very first brown trout in Dunedin.

All appeared to be proceeding smoothly with the Free Trader introduction when an attempt was made to rob the hatching boxes containing the ova. As the Otago Daily Times reported:

64 Untitled, Southland Times, 2 October 1868, 2.
65 Acclimatisation.”, Southland Times, 23 December 1868, 4; “Acclimatisation Society.”, Southland Times, 14 April 1869, 2.
66 ibid.
67 “Acclimatisating Society.”, Otago Daily Times, 18 September 1868, 3.
68 ibid.
70 “Acclimatising Society.”, Otago Daily Times, 18 September 1868, 3.
71 “News of the Week.”, Otago Witness, 3 October 1868, 11.
On seeing a light in that direction, his [Clifford’s] suspicions were aroused, and on reaching the boxes he saw two men bending down to them. He seized one of them, grappled with him, and by holding a stone to his ear, pretending it was a pistol, Mr. Clifford succeeded in leading him by the collar for a distance of about 40yds…when the other man came behind him and struck him…\textsuperscript{72}

The robbery was premeditated as the robbers left behind two bottles and a tin, which were found to contain the majority of the ova from the boxes. The OAS published a notice in the \textit{Otago Daily Times} offering a £50 reward for information leading to the conviction of the two men responsible, but no information surfaced about the thieves or their motive.\textsuperscript{73} Despite this interference, most of the ova appeared healthy and upon a visit from an \textit{Otago Daily Times} reporter over 100 young fish could be counted in one of the boxes.\textsuperscript{74} As the numbers of trout swelled to between four and five hundred within the week, public excitement at the prospect of trout in the waterways of Otago began to grow.\textsuperscript{75}

\textbf{Fig. 16: The Free Trader, wrecked in 1894}\textsuperscript{76}

The discussion amongst members of the OAS in mid-October quickly turned to how to distribute the young fish. Clifford suggested:

\textsuperscript{72} Untitled, \textit{Otago Daily Times}, 5 October 1868, 5.
\textsuperscript{73} Untitled, \textit{Otago Daily Times}, 7 October 1868, 1.
\textsuperscript{74} Ibid.
\textsuperscript{75} “Acclimatisation Society.”, \textit{Otago Daily Times}, 9 October 1868, 3.
That instead of putting the fish in the rivers, the aid of two or three gentlemen who would take
an interest in the matter should be obtained, the fish distributed amongst them, and placed in
artificial ponds and rills for spawning. The next young fish could be turned out.\textsuperscript{77}

This suggestion was met with approval, as it would always be necessary to maintain a
breeding stock from which to propagate further fish. By the end of October 1868 the
statistics as to the number of trout hatched from the 800 ova brought from Tasmania
were clear: ‘724 young trout were hatched; three of the number were deformed, and
two had died.’\textsuperscript{78} Various streams were mooted as being suitable and discussion was
entered into with Tasmanian pisciculturalists as to the best mode of transporting these
fry.\textsuperscript{79} On 1 December, the trout were transported into a temporary pond constructed
by Clifford whilst a more permanent arrangement was debated.\textsuperscript{80} By late December,
the time had come to send Clifford on an exploratory mission around the province to
determine the best sites for release, as the Tasmanian communication recommended
the trout only be transported before they reached four months of age.\textsuperscript{81} His report,
delivered at the meeting of 9 February 1869 identified a significant number of suitable
waterways, including several where the landowner was happy for a pond to be
constructed on their land to contain the trout.\textsuperscript{82}

Further to this, it was proposed that 50 trout would be furnished to the town of
Queenstown for distribution in Lake Wakatipu if the town would pay the expenses of
the voyage.\textsuperscript{83} This offer was accepted by the Queenstown Corporation and a ‘Public
Works Committee had already selected a site for the cutting of a race and breeding
pond thereon.’\textsuperscript{84} However, following remarks by Captain Boyd at a weekly meeting
of the OAS, the viability of transporting the live trout that distance was questioned
and it was recommended that: ‘The Society ought not to imperil the safety of 50 out
of 300 or 400 fish.’\textsuperscript{85} The exact consensus is unknown, but on 7 March the first
transportation of young fish took place when ‘Mr. Clifford…conveyed from the pond
on the Opoho Creek to the Waitati stream at Blueskin, 57 young trout, without

\textsuperscript{77} \textit{“The Otago Daily Times.”}, \textit{Otago Daily Times}, 16 October 1868, 2.
\textsuperscript{78} \textit{“Acclimatisation Society.”}, \textit{Otago Daily Times}, 30 October 1868, 2.
\textsuperscript{79} \textit{“Acclimatisation Society.”}, \textit{Otago Daily Times}, 6 November 1868, 2; \textit{“Acclimatisation.”}, \textit{Otago
Daily Times}, 23 December 1868.
\textsuperscript{80} Untitled, \textit{Otago Daily Times}, 8 December 1868, 2.
\textsuperscript{81} \textit{“Acclimatisation Society.”}, \textit{Otago Daily Times}, 25 December 1868, 3.
\textsuperscript{82} \textit{“Acclimatisation Society.”}, \textit{Otago Daily Times}, 10 February 1869, 3.
\textsuperscript{83} This is an early instance of a prevalent and genuinely altruistic trend amongst acclimatisation
societies of wishing to see trout spread beyond merely their own boundaries; Untitled, \textit{Otago Daily
Times}, 24 February 1869, 2.
\textsuperscript{84} \textit{“The Acclimatisation Society.”}, \textit{Otago Daily Times}, March 1869, 3.
\textsuperscript{85} Ibid.
sustaining any loss. The following day Clifford replicated his efforts in transporting 53 young trout to the Silver Stream again without loss. By the end of June 1869 the last of the trout had been distributed, with 61 young trout being placed in the headwaters of the Waikouaiti River. The widespread support and interest that the OAS received indicates very real excitement in Otago for trout; it is simply that Otago settlers, or at the least their newspapers, were not initially so vocal about it as in Canterbury.

Following the 1868 introduction the Secretary of the OAS applied to the Provincial Government for the bonus of £250, ‘which had been promised them during last year if they should succeed in introducing trout into the rivers of the Province.’ The funds received from the Provincial Government were, at least in part, put towards a further importation of ova in 1869 from Tasmania, once again overseen by Clifford. At a 6 July special meeting of the OAS, the arrangements for Clifford’s travel were set, with him departing on 10 July via the Alhambra travelling to Tasmania to receive ova for both the OAS and SAS. In early October Clifford returned to Dunedin aboard the barque Eucalyptus with three cases of trout ova. As the Otago Daily Times reported:

> The barque Eucalyptus...which arrived yesterday, from Hobart Town, after a remarkably smart passage of seven days, brought, under the care of Mr. Clifford, Manager of the Otago Acclimatisation Society, 1,000 trout ova for Otago, 800 for Canterbury, and 800 for Southland, which were shipped in very good condition.

The Otago case contained approximately 1,000 good ova, whilst the Southland case contained 900 good ova and the Canterbury case contained just 535 good ova as a result of 164 ova prematurely hatching. The ova for both the Canterbury and Southland Societies were turned out into separate hatching boxes in the OAS grounds. Mr. Howard, of the SAS, collected the ova and arrived ‘at the bluff by the Ashley yesterday with 700 trout fry, the produce of the ova hatched at Dunedin.’ Unfortunately, by late November, 300 of these fish had died as a result of their

86 Untitled, Otago Daily Times, 9 March 1869, 2.
87 Ibid.
89 Untitled, Otago Daily Times, 9 April 1869, 2.
90 Ibid.
91 Ibid.
92 “Shipping.”, Otago Daily Times, 7 October 1869, 2.
93 “The Trout Ova.”, Otago Daily Times, 7 October 1869, 2.
94 “Acclimatisation Society.”, Otago Daily Times, 15 October 1869, 3.
96 Untitled, Southland Times, 8 November 1869, 2.
transportation. As its share of the costs incurred in getting the ova to Southland the SAS forwarded £15 9d. Eventually, on 1 December 1869, the young trout held for the Canterbury Acclimatisation Society were forwarded on to Canterbury on the *Maori*.

The first reported sighting of trout in the streams of the province was in early October 1869, when a correspondent of the *Waikouaiti Herald* described seeing two trout in the mill-race on Mr. Young’s property at Palmerston, which he considered ‘a sure sign that the experiment lately made there is likely to be highly successful.’ On 27 December Mr. Brown of Tokomairiro ‘caught in the ponds on his property a trout about the size of a small herring, and … on putting it back into the water he observed two others, both of which appeared to be lively and well grown.’ From these reports, it can be inferred that the trout introduced into the province were thriving. Unfortunately, before these trout contained in Mr. Brown’s pond could be turned out into the Tokomairiro River, three successive floods left just one ten-inch fish to eventually be turned into the river. Similarly, in June a flood burst the ponds on Mr. Fenwick’s property near the Kakanui River and only two trout were retrieved when the water receded. Such occurrences were commonplace around the country and greatly hindered the acclimatisation efforts, although the trout were often swept into the river they were to be liberated into anyway.

In early 1870, the SAS began the experiment of transporting trout to Queenstown. The *Southland Times* detailed: ‘On Thursday last a special messenger was dispatched to Invercargill for the object of taking charge of young fry (64 in number)... and they will probably arrive at Queenstown this evening...’ Unfortunately, just one trout survived. It was not until November that the SAS was successful in their introduction of trout to Lake Wakatipu, when Mr. Howard deposited 90 ova into the

---

98 Ibid.
100 Untitled, *Otago Daily Times*, 8 October 1869, 2.
102 “Original Correspondence. Leasing of Bush Reserves.,” *Bruce Herald*, 27 April 1870, 6
103 Untitled, *North Otago Times*, 7 June 1870, 2.
105 Ibid.
106 Ibid.
ponds at Queenstown. Not long thereafter the OBAS applied to the OAS for 200 young brown trout for their area. The OAS responded that a journey by land would be too taxing, as a result of the low summer flows and the inability to ensure a supply of cool fresh water, so they would ship the ova under the charge of Mr. Waddell of the OBAS. These were eventually received by the OBAS in early 1871 and liberated in several streams in the area.

Despite the flourishing brood stock held by the OAS introductions from Tasmania continued with 1,000 brown trout ova arriving on the Swordfish from Hobart Town in early September 1870. With each subsequent introduction the reporting, both in newspapers and in OAS reports and meetings, diminished. The same year the SAS conducted its own importation per the Gothenburg when Mr. Butts, the honorary secretary of the SAS, brought back 1,068 brown trout ova and 157 ‘salmon trout’ ova, of which just seven were found to be bad. The Southland Times was quick to laud this ‘the most successful [shipment of ova] ever made to New Zealand.’ Quite what their grounds for such a claim were is unknown, but it was doubtless a significant boost to the brood stock.

At the end of December 1870 Clifford announced his intention to leave Dunedin to return to England, and as a result sever his connection with the OAS. Much as Johnson was largely responsible for the Canterbury introduction, Clifford fulfilled that role in Otago. In recognition of his contribution to both the OAS and the Otago Province, it was moved at an OAS meeting that a fundraising campaign be undertaken to ‘procure him a substantial testimonial…’ Clifford, however, stated that he would not accept such a testimonial. Instead, an ‘acknowledgement of the valuable service which Clifford has given to the province in the cause of acclimatisation…’ was

107 Untitled, Southland Times, 29 November 1870, 2.
108 “Acclimatisation Society.”, North Otago Times, 9 December 1870, 2.
109 Ibid.
110 Ibid.
111 “Shipping.”, Otago Daily Times, 5 September 1870, 2.
112 As mentioned above with regard to sea-trout, these are simply an anadromous variant of a brown trout; Untitled, Southland Times, 6 September 1870, 2.
113 Ibid.
114 Untitled, Otago Daily Times, 23 December 1870, 2.
115 Ibid.
recorded in the society’s proceedings. The significance of Clifford’s role in the introduction is testament to just how small and personally administered these early acclimatisation societies were.

**Increased production and inter-provincial distribution**

The OAS facilities were not the only site breeding trout in the 1870s. To this extent Otago differed from Canterbury, where breeding occurred exclusively at the Canterbury Acclimatisation Society ponds until Johnson opened his own hatchery in 1875. By the middle of 1870 a ‘branch fish establishment’ was created on Mr. Young’s property in Shag Valley. Under Mr. Young’s management, but subject to communication with the OAS, the Shag Valley facility became a major contributor to the introduction of trout to Otago as well as nationally. In August 1872 Mr. Young managed to strip some 3,000 ova from one female trout; however, it was uncertain whether a sufficient quantity of milt could be harvested to impregnate that number of eggs. In 1873, at Mr. Young’s facility in the Shag Valley, some 15,000 eggs were obtained and, barring 1,000 sent to Dunedin, were placed into the hatching boxes on site. The OAS was not alone in ramping up production. At the August 1872 meeting of the SAS it was suggested it would have be 20,000 and 30,000 ova available for distribution and the following year it ran a notice in the *Southland Times* advertising ova for sale at a rate of £10 per 1,000 eggs. By the early 1870s the stripping of eggs and hatching of ova had become an annual event. It continued to be reported, but with increasingly limited novelty.

The OAS and SAS had, along with the Canterbury Acclimatisation Society, the leading trout breeding facilities in the country in the early 1870s. Whilst their primary focus remained the distribution of trout within their own regions, requests flooded in from acclimatisation societies all around the country. In June 1872, the SAS received an application for ova from the Nelson Acclimatisation Society. This was accepted,

---

117 Otago Acclimatisation Society Annual Report 1870, MS378/V, Hocken Collections, Dunedin, New Zealand, 3.
121Untitled, *Southland Times*, 5 August 1873, 1.
and payment made in the form of Californian quail and English skylarks. Acclimatisers were, as this shows, ultimately not economically motivated but rather motivated by ideal of spreading beneficial species. The following month the OAS received a similar request for trout from the West Coast for distribution in the Grey River and tributaries. In September 1873, Mr. Young successfully shipped two lots of ova from Palmerston to Hawke’s Bay. Along with acclimatisation societies, some local governments requested ova too. In early 1874 the OAS received a ‘telegram from Mr. Crompton, Deputy-Superintendent of Taranaki, asking the Society if they could furnish trout to that Province to the value of £25…” The OAS, however, resolved to send some 140 trout to the Taranaki province free of charge. This is further indication of an altruistic desire to see trout flourish throughout the country and further substantiates the lack of economic motivation. Following the collection of the 1874 batch of ova, the OAS sent a further 2,000 trout ova to Taranaki and a similar number for the Wellington Acclimatisation Society on the Phoebe. Later that same month, Mr. Young also arranged for the transportation of some 1,500 ova on a three-day road journey from Palmerston to Lake Wakatipu, with approximately 1,000 of these ova surviving the journey. The following week he undertook a voyage on the Ladybird to Napier with 6,000 ova. In September 1875 the OAS shipped some 1,200 ova to Greymouth on the Maori, where the Greymouth Acclimatisation Society received them. These distributions were simplified by improving transportation technology within New Zealand. With the Clutha railway line opening in 1875 trout could be sent from Dunedin as far south as Balclutha with much greater ease and security than existed for previous overland voyages. As the OAS annual report of 1875 remarked: ‘Now that the Southern railway is opened to the Clutha, the Society will be enabled at small expense to further stock all the fine rivers in the Clutha and Pomahaka districts…” By 1880, approximately 40 per cent of the 100,000 ova secured by the OAS from trout in the Water of Leith were sent

124 “Acclimatisation.,” *Otago Daily Times*, 5 February 1874, 3.
129 This demonstrates an instance where imperial technology was used to facilitate the introduction of trout to New Zealand. See Chapter Nine for more detail; Untitled, *Otago Daily Times*, 8 September 1875, 2.
around the country to various societies, whilst the remaining 60,000 were hatched for
distribution in Otago itself (see Fig. 18).\textsuperscript{131} The Otago societies, and particularly the
OAS, can be seen to have been nationally significant in the distribution of trout
throughout New Zealand.

\textit{Protecting the trout}

Concern for the safety of the trout introduced to the rivers of Otago existed as soon as
they were introduced. The \textit{Otago Daily Times} in 1869 printed an account stating:

I think some precautionary measures should be taken as to prevent the Maoris netting the
trout, as I understand that about this time of the year they are in the habit of using that means
to catch minnows, and of course if the trout came into their nets they would not object.\textsuperscript{132}

However, it was not until trout became a common
sight throughout the province that some legislative steps were taken to protect them. At the end of March 1871, the \textit{Lake
Wakatip Mail} reported that ‘The Council are about to post public notices, under “The
Salmon and Trout Act 1871,” cautioning anyone against injuring or destroying the
trout.’\textsuperscript{133} Following this example, the OBAS resolved to request that the OAS ‘take
steps for having the Oamaru Creek and Waiareka Stream proclaimed under the
Salmon and Trout Act.’\textsuperscript{134} The OAS took similar steps for their own waterways as in
March 1872 the \textit{Otago Daily Times} stated: ‘…persons exploring the Water of Leith
and other streams where trout have been liberated, should bear in mind that anyone
destroying those fish can be made to pay a heavy penalty.’\textsuperscript{135} As well as taking these
steps to protect the estimated 2000 brown trout distributed by the OAS throughout the
province from the public, there were also efforts made to protect them from predators
such as the shag.\textsuperscript{136} As the OAS proclaimed somewhat hopefully: ‘Persons resident in
the country who are interested in the acclimatisation of trout, will contribute greatly
towards the success of that object by destroying both shags and kingfishers.’\textsuperscript{137} By
1875 the \textit{North Otago Times} was calling for a bonus to be paid by the municipality
for all shags killed.\textsuperscript{138} In early 1876 the \textit{Clutha Leader} reported: ‘A regular onslaught
was made on Christmas Day on an extensive shaggery on the banks of the Puerua

\textsuperscript{132} Untitled, \textit{Otago Daily Times}, 8 October 1869, 2.
\textsuperscript{133} Untitled, \textit{Lake Wakatip Mail}, 30 March 1871, 3.
\textsuperscript{134} Untitled, \textit{North Otago Times}, 18 April 1871, 2.
\textsuperscript{135} Untitled, \textit{Otago Daily Times}, 19 March 1872, 2.
\textsuperscript{136} This is the only reference to the destruction of kingfishers to protect trout; “Acclimatisation
\textsuperscript{137} Ibid.
\textsuperscript{138} Untitled, \textit{North Otago Times}, 5 June 1875, 2.
stream. Several of the settlers turned out with gun in hand to make war on the shags, enemies deadly to the young trout so liberally placed in the Puerua by the Acclimatisation Society.¹³⁹ Frequent reports of the destructive power of shags ensured that the war on the native bird continued and in 1878 a one-shilling bounty was offered per shag.¹⁴⁰

Whilst it had long been known that eels consumed trout, in 1888 the OAS became concerned about just how detrimental they were and obtained some large eel pots ‘to catch some of these slippery creatures so that they can examine their intestines and see if they are really as bad at poaching as they are reported to be.’¹⁴¹ Upon conducting their own experiments in March 1889, the OAS recommended that, in conjunction with the Otago Anglers Association, they offer prizes for the heaviest take in eels.¹⁴² To this end, the OAS obtained 14 substantial eel traps that ‘will be sent free of all charges to any angler who will take the trouble to set them in any of the following streams:- Waipara, Kaihiku, Lovell’s Flat, Lee Stream, Pomahaka, Waipahi and Kuriwao.’¹⁴³ In Otago, as throughout the country, native species were destroyed to provide a more habitable environment for trout. This will be dealt with in greater detail in Chapter Eight and the conflict this created with Māori will be addressed in Chapter Seven. Overall these approaches were reflective of the imposition of a different ecological order, whereby those species valuable to settlers were protected and the species that threatened them were destroyed.

**Trout fishing**

With trout now visible in streams around the country, many settlers wanted to realise their dream of fishing for trout. By mid-1874 the *Bruce Herald* published the following: ‘The Shag River contains a million of trout from minnows to fish of 16lbs weight. The Shag River should be thrown open to the public. “Shade of Walton.”’¹⁴⁴ In its 1874 annual report, the OAS stated:

> The Council is of the opinion that during the ensuing summer a short season of two or three months should be proclaimed, during which the brown trout may be fished for. The streams in

---

¹³⁹ Untitled, *Clutha Leader*, 13 January 1876, 5.
which such fishing should be permitted should, however, be confined to those into which trout were placed in the end of 1868 and the early part of 1869.\footnote{145} This was met with approval and at the 8 October meeting of the OAS ‘it was resolved that the Provincial Government be requested to declare the ensuing months of December, January, and February, an open season for river trout fishing, and that a fee of £1 be charged to any person desirous of taking out a fishing licence.’\footnote{146} This was gazetted on 16 November, with Silver Stream, Waitati River, Shag River and the Water of Leith the waterways to be opened.\footnote{147} Certain individuals could not wait: in November 1874 a trout was found dead in the Leith, having been speared in the back.\footnote{148} The news of an imminent open season in Otago led to letters to the editor in the \textit{Southland Times} querying why the same should not transpire in Southland.\footnote{149} However, it appeared that the SAS did not believe the streams sufficiently stocked yet.

For those more patient and law-abiding anglers excitement grew as the date approached and on 1 December a number of anglers tried their luck with a mixture of success using worms and artificial flies.\footnote{150} Despite the clear wording of the proclamation the fact that angling was limited to very specific waterways was not clear to all.\footnote{151} By January 1875 40 fishing licences had been taken out, though the return in respect of fish was lower than expected.\footnote{152} This is not a huge number, and yet for the very first season in an untested resource it represents a relatively strong uptake. The following year, by November, over 50 licences had been taken out and this would continue to increase each year as the culture of angling developed in New Zealand.\footnote{153} As the populations of trout in various waterways grew to a point at which they were considered secure the waterways were included in the list of open rivers. Finally, in November 1877, the SAS deemed the Waihopai River to have a sufficiently stable stock of trout to be opened to anglers who obtained a licence from the SAS.\footnote{154} At this point, it was the only river open in Southland, and fishing in any

\footnotesize
\begin{itemize}
  \item \footnote{145}{"Acclimatisation Society.", \textit{Otago Witness}, 12 September 1874, 4.}
  \item \footnote{146}{Untitled, \textit{Otago Daily Times}, 9 October 1874, 2.}
  \item \footnote{147}{Untitled, \textit{Otago Daily Times}, 18 November 1874, 2.}
  \item \footnote{148}{Untitled, \textit{Otago Daily Times}, 16 November 1874, 2.}
  \item \footnote{149}{"Trout Fishing.", \textit{Southland Times}, 18 November 1874, 2.}
  \item \footnote{150}{Untitled, \textit{North Otago Times}, 3 December 1874, 2.}
  \item \footnote{151}{Untitled, \textit{North Otago Times}, 12 December 1874, 2.}
  \item \footnote{152}{"Acclimatisation.", \textit{Otago Daily Times}, 20 January 1875, 2.}
  \item \footnote{153}{"Trout Fishing in Otago.", \textit{Otago Daily Times}, 9 November 1875, 2.}
  \item \footnote{154}{Untitled, \textit{Southland Times}, 10 November 1877, 3.}
\end{itemize}
other waterway was liable to a penalty of £50. Prior to the opening of the 1878 trout fishing season the advisability of opening all rivers to angling was discussed. As the *Otago Daily Times* reported: ‘It is argued that unless good fishing is found in a river it won’t be worthwhile for any to continue their sport there to the extent of retarding the increase of the young trout.’ As a result on 3 September, the OAS met and carried a resolution: ‘That the period dating from the 1st October, 1878, to the 31st March, 1879, be an open season for trout-fishing, by rod and line only, in the streams and lakes within [Otago]…’

![Fig. 17: The last take of the season, 1895](image)

Trout had been introduced to Otago almost exactly one decade earlier, and yet in that time they had been bred, distributed, stocked and supplemented by natural means to an extent that the majority of the province was deemed sufficiently well stocked to be thrown open to angling (see Fig. 17). Contrastingly, that season the SAS opened only the Waihopai and Waikiwi from 1 October to 31 December and the Makarewa from 1 November to 30 November. Finally, with the availability of trout fishing, a small commercial scene selling angling gear began to develop. Real estate advertisements in the period also began to list proximity to trout fishing streams as a feature of a

---

155 Untitled, *Clutha Leader*, 30 August 1878, 5.
156 “News of the Week.”, *Otago Witness*, 7 September 1878, 15.
158 “New Zealand Gazette.”, *Southland Times*, 8 October 1878, 2.
159 “Trout Fishing.”, *Otago Witness*, 16 October 1875, 10.
property, and coach drivers began to advertise in the *Otago Daily Times* for special fares to destination fishing streams further afield, such as Lee Stream.  

The first fishing club in Otago was founded in October 1880 in Tapanui, where ‘an angling club has been formed…for the purpose of protecting the trout in the Pomahaka and Waiwera Rivers from illegal destruction and otherwise to encourage the national sport.’ The first mention of a similar association in Dunedin was on 7 September 1881 when an advertisement was taken out in the *Evening Star* calling for ‘All anglers desirous of joining the association…’ to attend a public meeting on 9 September. By 24 September the Otago Anglers Association had met multiple times, with up to 40 gentlemen attending, and plans were already in place to hold a fishing competition on 9 November. In early October 1881 a similar venture was embarked upon in Clutha, resulting in the creation of the Clutha Anglers Club. One of the significant benefits of their existence, as touted by the clubs themselves, was the vigilance of their members in preventing poaching. To learn more about the populations in their rivers the OAS also engaged with anglers to complete catch records, so it could learn first hand the results of its distributions.

In September 1882 the OAS held a special meeting to debate whether fishing should be prohibited on Sunday. A number of reasons were mooted, ranging from an unnecessary intrusion on the property rights of landowners on a Sunday, to a belief that poaching was most common on Sunday, to a suggestion that the fish should be entitled to one day of rest. Despite the heavily Presbyterian nature of the Otago colonists, no doctrinal difficulties were raised at this stage. The resolution failed on this occasion, but the issue once again reared its head in September 1886 when the OAS received a petition from licence-holders in the Clinton and Clutha districts requesting that the question be reconsidered. Ultimately, despite strong arguments from several committee members, this question was once again resolved in favour of

---

164 Untitled, *Clutha Leader*, 7 October 1881, 5.
165 Otago Acclimatisation Society Reports re Catches of Fish Season 1889 to 1890, MS93-023/44, Hocken Collections, Dunedin, New Zealand.
167 “Otago Acclimatisation Society.”, *Otago Daily Times*, 13 September 1886, 3.
keeping streams open on Sundays. This drew some criticism in the newspapers, with one author stating: ‘It is surprising that Scotchmen and office-bearers in a Presbyterian Church should be found advocating Sabbath breaking and trading, as did certain members of the [OAS] recently when they voted for trout fishing on Sunday being legalised.’ This represents a uniquely Scottish Presbyterian perspective, and it is unsurprising that it materialised in Otago. At no point in Anglican Canterbury, or in Wellington or Auckland, was this suggestion of observing the Sabbath raised with regard to fishing. At the annual meeting of the Otago Anglers Association all but two members pledged not to fish on a Sunday, rendering the debate largely moot. It is unclear what their motivation was for taking this step, but it is difficult to believe that it was not influenced by Presbyterianism. Despite the intensity of this discussion, the matter appears to have simply fallen from popular discussion by November of that year.

Angling by rod and reel was not the only variant sought by some colonists. In 1881, Mr. Mason, the Wakatipu correspondent for the *Otago Daily Times*, put forward a proposition to form a commercial fishing establishment at Lake Wakatipu with an eye to canning trout and selling it throughout country and commonwealth. This brought about significant discussion at the meetings of the Otago, Southland and Lakes District acclimatisation societies, as well as in letters to the editors of the various newspapers. The advent of refrigeration created the opportunity to supply the British market with trout; however, an English article on the subject referred to the New Zealand trout as a ‘curiosity…cordially welcomed’ but suggested ‘our New Zealand cousins will probably find it more advantageous to catch and keep their fish for their own consumption.’ This idea of commercialising the trout fishery through the sale of fish does not actually support an economic motivation for their introduction, rather it is indicative of a desire to realise the profitability of a resource: it is a product of the introduction, not a cause of it.

168 “Trout Fishing on Sunday.”, *Evening Star*, 20 September 1886, 3.
169 “Sunday Fishing.”, *Otago Daily Times*, 1 October 1886, 4.
170 “The Lakes and Fish Culture.”, *Otago Daily Times*, 17 August 1881, 4.
171 The LAS was based at Wakatipu.
172 “Frozen New Zealand Fish.”, *North Otago Times*, 15 August 1884, 3.
On 30 March 1885 regulations for netting trout in the waters of Lake County were gazetted.\textsuperscript{173} The regulations specified that the control and management of all trout in the county was vested in the LAS, and that they were permitted to divide the lakes into suitable areas and let these areas out for commercial fishing on an annual basis with the season running from 1 March to 30 April. In order to fish with a net a special licence must be obtained from the LAS and the right to fish a specific area must be won at auction or tender. When these eventually went to auction on 12 September, the whole of Lake Hayes was bought for £150, Moke Lake for £10 and portions of Wakatipu for between £4 10s and £26 10s.\textsuperscript{174} The first report of Wakatipu fish reaching the Dunedin market was in October 1885, when Mr. Price had on display 40 fish, retailing at one shilling per pound.\textsuperscript{175} As a result of the revenue derived from the sale of netting rights in the lakes, the LAS immediately had a significant increase in funds at its disposal. However, in 1886, the LAS only realised £84 by the sale of trout netting sections on the waters of the lakes, and following years were similar.\textsuperscript{176} Whilst commercial trout fishing did exist, it is clear there was not a huge market for it nor did it fundamentally change the shape of the trout fishery in Otago.

\textbf{Poaching, regulations and awareness}

With the increasing spread of fish and game throughout the province, and in particular into more sparsely populated areas, it became necessary for acclimatisation societies to appoint rangers pursuant to the \textit{Salmon and Trout Act 1867}. Rangers policed the rules and regulations surrounding acclimatised animals, as well as prosecuting anyone in breach of these rules. In October 1874 Mr. Alexander Gray was gazetted as the first OAS Ranger, with his role primarily centred on game animals and shooting.\textsuperscript{177} Although not stated overtly, it is assumed that these rangers were unpaid as the \textit{Otago Daily Times} published the following: ‘Honorary rangers cannot be expected to do much towards the detection of them [poachers], and to support a paid ranger or rangers is, we presume, beyond the means of our local Acclimatisation Society.’\textsuperscript{178} Surprisingly, there is no record of the appointment of the most significant and enduring ranger for the OAS, John Burt. However, it is apparent that he was a ranger

\textsuperscript{173} \textit{“Conditions for Trout Netting.”}, \textit{Lake Wakatip Mail}, 10 April 1885, 6.
\textsuperscript{174} \textit{“Local and General Intelligence.”}, \textit{Tuapeka Times}, 16 September 1885, 2.
\textsuperscript{175} Untitled, \textit{Otago Witness}, 31 October 1885, 15.
\textsuperscript{176} Untitled, \textit{Otago Daily Times}, 15 June 1886, 2.
\textsuperscript{177} Untitled, \textit{Otago Daily Times}, 15 October 1874, 2.
\textsuperscript{178} Untitled, \textit{Otago Daily Times}, 29 June 1875, 2.
by July 1878 at the latest. Mr. Burt would come to be heavily involved in both the distributing of trout throughout Otago as well as policing any offences committed against them.

By 1876, an illegal market had developed for the salmon trout, the cessation of which was called for by the *Otago Daily Times*. That same month: ‘A Chinaman named Ah Mong, who has been earning a lucrative living of late by catching small fry in a net at the corner of Rattray street jetty, and who occasionally nets a trout, was yesterday charged at the Police Court with contravening the Fisheries Act, 1867.’ As a result of the lack of clarity surrounding which species the various proclamations and acts pertained to, Mr. Mong was fined the nominal amount and all of his gear was returned to him. There is evidence of numerous salmon trout being sold at market and yet no Pākehā was charged with such an offence, a point raised by Mr. Mong in his defence. Eventually, the OAS went so far as to offer a standing £10 reward ‘to any person who will give such information as shall lead to the conviction of any person illegally taking and destroying trout.’ Based on statistics of criminal offences published in the *Otago Daily Times* comparing the various South Island provinces, it appears that Otago was vastly more diligent in prosecuting offenders under the *Salmon and Trout Act*, with 16 offences and 12 arrests in contrast with zero for the remaining provinces. It is uncertain whether this stems from the Scottish civil law heritage of Otago colonists, compared with English common law, or whether it is simply a product of a particularly proactive ranger. Despite the legal differences, it is unusual that Scottish Otago leads this tally, as such a zealous approach is more akin to the English game laws that should be more likely to come through in Canterbury. It is also important to note that a very high percentage of reported poaching offences were by Chinese settlers, which begs the question whether there was in fact a high rate of poaching amongst Chinese migrants, or if it was simply xenophobia that resulted in a far higher rate of reporting and conviction.

180 It is possible Mr. Burt was paid for his role, as he appears to have been particularly involved in the distribution of trout too.
183 “City Police Court.”, *Otago Daily Times*, 30 November 1876, 3.
184 Untitled, *Otago Daily Times*, 3 November 1877, 3.
185 “Criminal Statistics.”, *Otago Daily Times*, 7 June 1878, 3.
186 “Local and General Intelligence.”, *Tuapeka Times*, 24 September 1880, 2.
In the early days of acclimatisation trout were introduced to sufficiently few streams that their management could be addressed by the local acclimatisation societies. Early legislation, such as the *Salmon and Trout Act 1867*, simply provided the legislative framework for the local societies to administer regulations governing their local fisheries. By 1877, however, trout were sufficiently widespread throughout New Zealand that they warranted national legislative attention. The *Fish Protection Act 1877* ‘extended government control over both fresh and saltwater fisheries by authorising the Government to make regulations: declaring fishing districts; defining a fishery; reserving any area from fishing; controlling the seasons and size of nets and seines; granting exclusive licences to fish any fishery.’\(^\text{187}\) The first point of contention arose in 1880 with the proposed *Fisheries Bill 1880*, which sought to nationalise licence sales with fees paid to the Government. It was the belief of the OAS, and the majority of acclimatisation societies throughout the country, that removing their primary source of income, licences, would render the entire process of stocking trout infeasible.\(^\text{188}\) Accordingly, the OAS passed the following resolution:

> That this Society, having considered the provisions of the proposed Fisheries Bill, desire to urge upon the Government the necessity of having the bill so amended as to incorporate the provisions of the Salmon and Trout Act, 1867, and preserve to the acclimatisation societies the revenue arising from licences...\(^\text{189}\)

The Government replied at the end of July, stating that they ‘deemed it undesirable that fees for fishing licences should be given to the societies...’\(^\text{190}\) Despite this, the Fisheries Bill 1880 never came to fruition and the acclimatisation societies retained control of fishing licences and the associated revenue stream. The Fisheries Bill reared its head each year with slightly differing content, yet it was never actually enacted.

In 1886 a Salmon and Trout Bill was put before the House of Lords concerning the permissibility of fishermen using nets in Lakes Waihola and Waipori.\(^\text{191}\) The OAS had given its consent and yet the ‘Lords were so indignant that the king of fishes...’

---

\(^{189}\) Ibid.  
\(^{190}\) “Otago Acclimatisation Society.”, *Otago Daily Times*, 12 August 1880, 3.  
\(^{191}\) It is not apparent why such offence was taken here, and not with regard to the commercial fishing in Wakatipu, as mentioned early in this chapter; “Untitled,” *Bruce Herald*, 10 September 1886, 3.
should be approached in any less dignified manner than is the custom with the legitimate disciples of Isaak Walton that they criticized the Bill unmercifully and threw it out. ¹⁹² The view of the Lords is reflective of a traditional British classist approach to angling rights that was largely absent in New Zealand society, yet was evidently prevalent amongst the very highest class. It further opens up a suggestion that truly egalitarian access to trout in New Zealand would have necessitated no regulations whatsoever and that any licensing system or list of rules by which to fish by is inherently an infringement on the freedom of colonists. This matter is discussed in detail in Chapter Nine.

The increase in members of the public targeting and protecting trout from a recreational perspective led to an increased environmental awareness regarding water quality and trout habitat. As early as 1874, the state of Town Creek, flowing into Lake Wakatipu, was the subject of public debate in the Lake Wakatip Mail. The quality of water had been a recurring issue, but: ‘no sooner do a few trout ova arrive than they go into hysterics over the conservation of the purity of this stream.’ ¹⁹³ Similarly, in 1882, the Otago Daily Times reported the poisoning of trout by fellmongeries in the tributaries of the Pomahaka River. ¹⁹⁴ Just two months later the Mount Ida Chronicle reported complaints regarding the killing of trout in Little River by the large quantities of sawdust entering the river. ¹⁹⁵ Two years later the Otago Daily Times published a letter querying whether the newspaper could ‘inform your angling subscribers whether the law can prevent the pollution of the streams and rivers of Otago?’ ¹⁹⁶ In 1884 the OAS posted notices stating that a penalty of £100 could be enforced against anyone placing anything destructive to trout in the streams, but it was unclear how this might be effected.

In 1889 Ranger Burt wrote to the OAS directing their attention to the fact that ‘some of the best streams in the province were being polluted, the young fish killed, and the spawning beds destroyed by the owners of saw mills discharging sawdust into the

¹⁹² Ibid.
¹⁹³ “Letters to the Editor.”, Lake Wakatip Mail, 28 August 1874, 3.
¹⁹⁴ Untitled, Otago Daily Times, 4 January 1882, 2.
¹⁹⁵ Untitled, Mount Ida Chronicle, 30 March 1882, 2.
¹⁹⁶ “Pollution of Streams.”, Otago Daily Times, 2 April 1884, 4.
Ranger Burt was instructed by the OAS to take proceedings against any mill-owners who were putting refuse in the rivers. The *Bruce Herald* wrote on the subject:

> While it is not desirable that local industries of this sort should be in any way crippled for the sake of preserving the means of sport for the favored few who have leisure for angling, yet as filtration can be secured at a trifling cost it is hoped that the nuisance will speedily be stopped.\(^{198}\)

This represents an interesting dichotomy, whereby both groups, industry and acclimatisers, are effectively competing for the right to benefit from New Zealand’s environment. Possibly because Canterbury’s industrial backbone was extensive sheep farming this conflict did not appear to arise there. Otago, given the influence of gold mining, was also subject to an environmental anxiety over mining discharge into rivers.\(^{199}\) While this was primarily related to the dangers it posed to farmland, it still resulted in the protection of waterways from pollution and should be regarded as part of the same movement. The reaction from anglers demonstrates that trout were a conduit for early environmental awareness and conservation amongst New Zealand colonists. This has continued to be the case to this day, with anglers providing one of the biggest freshwater lobbying groups in New Zealand.

**Private pisciculture and on-going actions of the acclimatisation societies**

In September 1883 the *Otago Daily Times* ran an article discussing the relative lack of private pisciculture in New Zealand as compared with America and England, although they were somewhat errant in describing it as ‘an entirely novel pursuit in these Colonies.’\(^{200}\) Despite the comments by the newspaper Otago actually led the charge nationally in this regard, with a number of independent ventures. Mr. Young’s establishment in Shag Valley, whilst affiliated with the OAS, operated largely as a private venture. Similarly, in 1881 Mr. William Pillans began a small pisciculture venture on Hillend Station near Balclutha.\(^{201}\) After constructing hatching boxes and breeding ponds, Mr. Pillans obtained approximately 7,000 ova from Lovells Creek both from gravel redds and from stripping female fish. There was no debate regarding the legality of this act, suggesting the Canterbury Acclimatisation Society’s

---

\(^{197}\) “Otago Acclimatisation Society.”, *Otago Daily Times*, 23 January 1889, 3.

\(^{198}\)Untitled, *Bruce Herald*, 1 February 1889, 3.


\(^{201}\)Untitled, *Tuapeka Times*, 5 October 1881, 2.
opposition to Johnson’s activities, discussed in the preceding chapter, was rooted in spite. Not only was Pillans responsible for distributing some 27,000 trout in the surrounding streams, he also assisted Mr. Burt with the OAS’s own distributions.\textsuperscript{202} Pillans was not alone in this act, with a number of other private individuals breeding trout on a hobby scale.

With brown trout securely established in the province the attention of the OAS turned to supplementing that population with other desirable species. One of these, held in the highest esteem back in England, was the Loch Leven strain of brown trout that live in Loch Leven, Scotland.\textsuperscript{203} The interest in Loch Leven trout, whilst not limited to Otago, was most strongly held there, and this is probably a result of the Scottish connection. Towards the end of 1881 the OAS arranged shipment of 50,000 salmon trout ova from the UK, to which Sir James Maitland added 20,000 Loch Leven ova.\textsuperscript{204} In February 1882 the OAS received a telegram from Melbourne stating that the Loch Leven ova had arrived on the \textit{Potosi} and would be forwarded on to Dunedin on the \textit{Rotomahana} arriving in Port Chalmers on 21 February.\textsuperscript{205} Upon arrival into Port Chalmers it became apparent that the entire lot of ova had gone bad due to insufficient ice.\textsuperscript{206} This attempt became annual, with the 1882 and 1883 shipments also going bad. In early 1884 another allotment of 100,000 Loch Leven trout ova were sent by Sir James Maitland, on the \textit{Aorangi}. Mr. Stoddart, chairman of the OAA and an active participant in the OAS, travelled from England with them, discovering upon opening the shipment that ‘a considerable proportion of the ova are dead…the ova in one box, however, is in fairly good condition.’\textsuperscript{207} The success of this introduction was announced at a meeting of the OAS in mid-February 1884 and a vote of thanks was conveyed to Mr. Stoddart ‘for his care and attention to the Loch Leven trout ova during the voyage from England of the Aorangi, and that he be elected a life member of the Society.’\textsuperscript{208} The Loch Leven trout attracted significant interest from various acclimatisation societies wishing to secure their own population and it was ultimately

\begin{footnotes}
\item[202] Ibid.
\item[203] Now believed to be simply an aesthetic variation resulting from the environment the fish live in.
\item[204] Untitled, \textit{Bruce Herald}, 15 November 1881, 3.
\item[206] Untitled, \textit{Bruce Herald}, February 24, 1882, 2.
\end{footnotes}
resolved to grant the Canterbury Acclimatisation Society 200, Mr. Johnson 30, Mr. Pillans 100, but to defer the request from the LAS until the OAS had been able to breed from its stock.  

Since its inception the SAS had been erratic in its efforts to introduce and acclimatise trout. Periods of high intensity were followed by substantial periods where little to no work was done. Following the visit of members of the OAS to Southland for a fishing excursion in 1885 the OAS offered to transport and distribute some 10,000 ova to the province free of charge. The Southland public despaired at the inactivity of the SAS and commended the OAS for their efforts to spread trout through Southland. In a SAS meeting it became apparent that the lack of breeding facilities meant the SAS were dependent on other societies for their ova. As the honorary secretary of the society stated: ‘it would be very desirable if, in the future, the Society had their own breeding establishment and bred their own fish instead of sending to Queenstown for them.’ At the conclusion of the meeting, Mr. Valentine offered grounds for hatching ‘at a peppercorn rent.’ The new hatching facilities on the Otamete stream were operational by late June and Mr. Campbell obtained 5,000 ova from the stream to place in the hatching boxes. Despite this the SAS continued to rely largely on the LAS for its trout fry. By 1887 the SAS had managed to get their trout breeding programme up and running, yet not with quite the success anticipated. Of more than 100,000 ova only 34,650 fish were hatched and these were distributed in the streams throughout the area. The loss of such a significant proportion of fish was determined to be a result of unsuitable water, and following the 1887 season the hatchery was discontinued and the SAS returned to its reliance on obtaining ova from other societies.

209 “Otago Acclimatisation Society.”, Clutha Leader, 14 March 1884, 6.
210 Untitled, Southland Times, 12 May 1885, 2.
212 The LAS had, by this stage, implemented a successful trout breeding program; “Southland Acclimatisation Society.”, Southland Times, 18 May 1885, 2.
213 Ibid.
214 Untitled, Southland Times, 29 June 1885, 2.
215 It appears that its own facilities were largely dedicated to the salmon; “Southland Acclimatisation Society.”, Southland Times, 18 June 1887, 2.
Over the course of the 1885/1886 season the OAS also made significant improvements to their Opooho Creek grounds, as well as purchasing 43 acres on a tributary of the Waiwera. In late 1885 a five-roomed cottage was erected on the Waiwera site, with Ranger Burt installed as manager. Immediately work began on the construction of hatching ponds and a water race to feed the ponds. It was intended that the Waiwera grounds be used as a ‘stud farm for the various species of salmonidae’.

To this end, the bulk of the remaining Loch Leven trout in the OAS’s possession were sent to the Waiwera grounds, with some 50 trout retained at Opooho. By August 1886 the ponds contained 175,000 ova, with the majority obtained from the LAS, compared with 171,000 at the well-established Opoho grounds. The Opoho grounds were subsequently expanded again in 1887 with the erection of

---


221 This number varies between 90,000 and 175,000; “Our Fish Supply.,” Otago Daily Times, 27 August 1886, 4.
another hatching house further down the stream.222 By this time a dam had been created at the Waiwera grounds, with water from the dam piped into the hatching and rearing ponds.223 Late in 1887 the Waiwera hatching boxes contained 50,000 Loch Leven trout fry, 800 Scotch Burn fry, and 100,000 ‘common brown trout’ fry, whilst the Opoho grounds contained upwards of 250,000 fry comprised of brown trout, brook trout and salmon.224 The OAS ended this period of study with more trout, larger facilities and a wider reaching distribution than anywhere else in the country.225

**Conclusion**

This intensive study of the introduction of trout to Otago has created a narrative that highlights a number of aspects that are unique to the region. Both the greatest similarities, and the strongest contrasts, occur between Otago and Canterbury. There is a distinctly Scottish Presbyterian characteristic to the introduction of brown trout to Otago that cannot be ignored.226 The most significant manifestation of this was with regard to the suggestion to ban fishing on a Sunday. There is no question that this was a product of the religious belief of preserving the Sabbath, regardless of the actual reasons proffered. This phenomenon did not occur anywhere else around the country and yet the suggestion recurred several times in different parts of Otago, strongly indicating that it came about as a result of the different religious constitution of Otago. The location of the strongest opposition to fishing on a Sunday in keeping with the fact that strict Presbyterians were most concentrated and exercised the greatest influence in southern Otago.227

The origins of a desire for trout in Otago also hint at a point of difference, with far greater reservation expressed at the leisure component of trout fishing. There is also, although difficult to substantiate, a very slight indication that trout fulfilled more of a food role and less of a recreational role in Otago, though this did not prevent the early establishment of a strong angling culture. The idea of trout as a food source was

---

223 Ibid.
225 With the possible exception of Wellington.
226 This is addressed in much greater detail in Chapter Nine.
influenced by the Scottish famine of the late 1840s and early 1850s, explaining why it was most evident in the early years of the Otago settlement. The transition towards trout as recreation also correlates to the changing economic scene in Otago. Prior to the 1864 gold rush, agriculture dominated and did not afford colonists significant leisure time, whereas the capital injection of the gold rush brought about more economic security for the region and a greater potential for leisure activities.

Similarly, the number of private pisciculture ventures indicates a detachment from the centralised control of trout that was evident in Canterbury, and evocative of England. It is clear the Canterbury Acclimatisation Society felt possessive of the trout it had introduced, and believed themselves best equipped to undertake the introduction. Otago, contrastingly, encouraged and worked with a number of individuals, from Mr. Young to Mr. Pillans amongst others, to better effect the introduction of trout to the region. This is in keeping with the subtly differing views of trout ownership between Scotland and England.\textsuperscript{228} What stands in contrast to the identifiably Scottish influence on the introduction of trout to Otago is the fact that poaching offences were prosecuted with far greater vigilance than Canterbury, which one would presume would be more influenced by restrictive English game laws. One argument in favour of a Scottish flavour to the prosecution of poachers is the differing legal systems, with Scotland having a codified civil law system.\textsuperscript{229} Thus the idea of codified game regulations would be more relatable to Scots, and possibly more likely to be enforced. However the most likely rationale for this difference is simple: a more vigilant ranger or two.

Most notably, the differences between Scottish Otago and the remainder of the country in this matter are subtle. Yes there are undeniably differences that come about as a result of the different ethnic backgrounds of the colonists in each region, but these differences are peripheral and do not have a significant impact on the practicalities of the introduction. The actual progress of introducing and distributing trout in Otago and Canterbury is almost identical: both regions introduced trout, bred trout, opened rivers to fishing, and even lakes to commercial fishing, within a year of each other. To this extent the greater contrast, more influenced by environmental

\textsuperscript{228} There is a Scottish belief that what was ‘of the water’ belonged to God, not to man.
\textsuperscript{229} Patterson, Brooking & McAloon, \textit{Unpacking the Kists}, 116.
factors, exists between the Southern regions and the Northern regions canvassed in this study. Otago as a region is flush with freshwater and more pertinently the city of Dunedin, the economic and population centre of the region, has a number of idyllic streams running through the town. As mooted at the conclusion of the Chapter Three I believe the environmental factors substantially outweigh the ethnic factors in their influence on the introduction of trout and this theme will be expanded upon in the studies of both Auckland and Wellington.
Chapter Five: The Introduction of Brown Trout to Wellington

Introduction

The Wellington region lies at the southern end of the North Island and stretches from the Tasman Sea on the west coast to the South Pacific Ocean on the east. The North Island does not possess one dominant chain of mountains, like the Southern Alps of the South Island, but rather clusters of ranges that typically run north-south. The Tararua Range runs like a spine down the region, dividing it into a narrow strip of habitable land on the west coast in the lower half of the region and a much wider swathe of land on the east. The further north one travels the wider the western section of land becomes as the Tararua transition into the Ruahines and tend eastwards. These ranges are the source of numerous streams and creeks that cascade off each side, joining to form larger rivers. No one river dominates on the west coast, as there is no barrier preventing them from flowing freely into the Tasman. In the eastern Tararua, the rivers run down through the foothills, eventually hitting a broad valley defined by the passage of the Ruamahanga River, from its origin in the northern corner of the Tararua to its conclusion in the estuarine Lake Onoke from whence it flows out into Cook Strait. Because of the dominance of the Tararua, the rivers flowing to the east coast from the foothills that dot the coastline are not on the same scale as those derived from the Tararua. Lakes are few and far between in the lower Wellington region, with Lakes Onoke and Wairarapa the only ones of significance. Further north, into the central North Island, a number of volcanic lakes, including the immense Lake Taupo, lie in the shadow of Mt. Ruapehu, Tongariro and Ngauruhoe.

Various Māori iwi contested the Wellington region. Accordingly, Māori settlement in Wellington is much more varied than in Canterbury or Otago. Six iwi now claim mana whenua to different parts of the immediate Wellington region, with the wider region home to numerous more.1 European settlement nearly commenced in 1826, when the New Zealand Company sent two ships to scout for settlement sites.2 Wellington harbour was entered, but as a result of uncertainty with the local Māori

---

2 Lynne Richardson et al (eds), Bateman New Zealand Encyclopedia, 6th ed. (Auckland: David Bateman Ltd, 2005), 717.
population no settlement was founded. The offshore islands of Kapiti and Mana were a hotbed for whaling in the 1820s and 1830s, with Māori, especially Ngāti Toa, and Europeans also engaging in trade. Planned settlement was again undertaken by the New Zealand Company, and in early 1840 the first settlers arrived at a settlement that was to be named Brittania, at the mouth of the Hutt River, before relocating to Wellington’s present site after flooding (see Fig. 19). Relations with local Māori were volatile and it was not until 1846, following the arrest of Ngāti Toa chief Te Rauparaha and an attack by Governor Grey’s troops on Te Rangihaeta’s pa at Battle Hill, that Ngāti Toa resistance in the area was quelled and European settlement commenced in earnest. Wellington’s early economy was centred on trade with local Māori and some farming in the Hutt Valley. In 1865, as a result of its central strategic positioning, Wellington was made the capital of New Zealand. This ushered in a new age of public works and industry that resulted in significant growth for the region. Wellington’s population was less distinctly identified with one demographic than Canterbury or Otago; however, the majority of early settlers were English with a smaller number of Scottish, Irish and a few Welsh.

Fig. 19: Wellington, 1858

---

4 Ibid.
Inauspicious beginnings

The introduction of trout to Wellington, and in particular the role of the Wellington Acclimatisation Society (WAS), took a different route to the South Island regions previously canvassed. As early as 1852, the *New Zealand Spectator and Cook’s Strait Guardian* reprinted a French article explicitly detailing the methodology of artificially breeding trout.\(^6\) Contained within the article is the line: ‘rivers and lakes in which there were no fish are now teeming with them.’\(^7\) Such a suggestion must have resonated with Wellington colonists who were themselves facing rivers and lakes with few relatable fish. Similarly, there was a reference in Mr. Sutton’s journal, published in the *New Zealand Colonist and Port Nicholson Advertiser* in 1842, to a local fish that was described as a ‘small speckled mountain trout.’\(^8\) This demonstrates that ‘trout’ as a concept provided a frame of reference for colonists to relate to their new environment. This is in keeping with the experience in the United States also, where William Cronon observed: ‘More confusingly still could be the natural tendency to apply European names to American species which only superficially resembled their counterparts across the ocean.’\(^9\) In 1864, the first article openly discussing the potential for trout in Wellington ran in the *Wellington Independent*, in which F. J. Knox stated that: ‘On visiting the bay and harbor of Porirua, it presents at first sight everything to be desired as a locality for the trout and salmon.’\(^10\) The timing of this article is also significant: trout and salmon ova had not, at this point, been successfully transported to Australia. Accordingly, it is perhaps unsurprising that there was not more discussion concerning the introduction of trout to Wellington, as it was not known to be feasible at this time. As the concept of acclimatisation was increasing in popularity in the southern provinces it remained relatively non-existent in Wellington.

---
\(^6\) Consistent with the progress being made in French pisciculture in this period; Darin Kinsey, “Seeding the Water as the Earth: The Epicenter and Peripheries of a Western Aquaculture Revolution”, *Environmental History* 11, no. 3 (2006): 528; “Miscellaneous.”, *New Zealand Spectator and Cook’s Strait Guardian*, December 15, 1852, 3
\(^7\) Ibid.
\(^8\) “Mr. Sutton’s Journal.”, *New Zealand Colonist and Port Nicholson Advertiser*, September 9, 1842, 4.
\(^10\) Having grown up on the shores of Porirua Harbour I am pleased to hear it was viewed as such an excellent prospect for trout and salmon. Sadly, this never quite eventuated, at least not while I lived there; “Acclimatisation.”, *Wellington Independent*, 4 February 1864, 3.
In 1865, one of the Wairarapa members of the Provincial Council proposed that £250 should be placed on the Estimates for the purpose of introducing into the Province of Wellington, “birds, beasts and fishes, with a view to their acclimatisation.”\(^{11}\) Later that same year the *Evening Post* stated: ‘Acclimatisation is the pre-eminent want of New Zealand. There are but few animals indigenous to the soil, and they are useless, and the great variety of indigenous plants are inapplicable to the wants of man.’\(^{12}\) This quotation provides a strong testament to the beliefs of colonists, yet flies in the face of local Māori, who had existed for centuries on New Zealand’s flora and fauna. Despite this demonstration of support for acclimatisation by 1867 the only society operational in Wellington was the Wanganui Acclimatisation Society, established in January 1863.\(^{13}\) As McDowall notes, the Wanganui society even went so far as to later facetiously claim that ‘the society possibly instituted the Acclimatisation Movement in New Zealand.’\(^{14}\) In 1866 a further £200 was placed on the Estimates of the Wellington PC for acclimatisation purposes.\(^{15}\) Overall, it must be stated that the acclimatisation movement in Wellington had an air of voyeurism about it. The actions of societies around the country were readily reported; yet little local action was taken.

It was not until after the efforts made by both the Canterbury and Otago acclimatisation societies to introduce trout to New Zealand, reported heavily in the Wellington newspapers, that the discussion to bring trout to Wellington began in earnest. In 1868 the *Wellington Independent* drew the attention of readers to an advertisement regarding the formation of a Horticultural and Acclimatisation Society.\(^{16}\) Later that same year it was suggested that an Acclimatisation Committee, presumably an auxiliary to the Horticultural and Acclimatisation Society, should be formed for the express purpose of acclimatising game and birds.\(^{17}\) It is not apparent to what extent the Horticultural and Acclimatisation Society operated; however, it is clear they took no steps towards securing a supply of trout. As it became apparent that trout in Otago, Southland and Canterbury were thriving in their new habitat, calls to

---

14 In fact, as McDowall points out, Auckland was almost certainly earlier; R. M. McDowall, *Gamekeepers for the Nation*, (Canterbury: Canterbury University Press, 1994), 19.
bring them to Wellington intensified: ‘We hope that some steps will be taken to import some [trout and salmon] to the Wairarapa, the rivers here would be well suited to them.’\(^{18}\) In February 1869 the *Wairarapa Standard* ran an advertisement seeking subscriptions for a Wairarapa Acclimatisation Society (WaAS) that had, as its object, ‘the introduction of English Birds and Fish, and Australian Fish into the Wairarapa.’\(^{19}\)

Writing of the formation of the society, the *Wairarapa Standard* reported with relief:

> An Acclimatisation Society has long been requisite in the Wairarapa. The slight efforts that have been made by private individuals have proved inadequate to the ever increasing requirements of the district, and we are therefore glad to see a Society formed.\(^{20}\)

It is important to note that, while there was clearly an intention to establish an acclimatisation society, it lacked many of the formal trappings of a society.\(^{21}\) It did not appear to meet regularly, nor provide reports of their meetings and there is no evidence of the WaAS taking practical steps towards introducing trout for a further two years.\(^{22}\)

In April 1871 the *Evening Post* drew the attention of its readers to a ‘meeting of gentlemen favourable to the formation of an Acclimatisation Society in Wellington.’\(^{23}\)

At the meeting held at the Colonial Museum on 19 April 1871 the Wellington Acclimatisation Society (WAS) was formed and a committee to run it established.\(^{24}\)

Grounds for the society were secured in the botanical reserve (see Fig. 20) and in July it was planned to commence work on ponds for ‘salmon trout.’\(^{25}\)

Writing immediately in the aftermath of the creation of the society, the *Wellington Independent* judged that: ‘The introduction of fish would not, perhaps, be of so much importance to this province as to our Southern neighbors…’\(^{26}\)

It is unclear exactly where this belief stemmed from, other than in the less significant influence of fresh water in Wellington city, but it is apparent that it was relatively widespread amongst Wellington acclimatisers, who favoured birds over fish and game in the early years.

---

\(^{18}\) “Local and General News.”, *Wairarapa Standard*, 3 October 1868, 2.

\(^{19}\) “Acclimatisation Society, Wairarapa.”, *Wairarapa Standard*, 19 February 1869, 2.


\(^{21}\) For the purposes of this chapter they shall be referred to as the WaAS from this point, but the official commencement date is more accurately July 1882.

\(^{22}\) “Acclimatisation.”, *Wairarapa Standard*, 4 March 1871, 3.


\(^{24}\) “Acclimatisation Society.”, *Evening Post*, 19 April 1871, 2.

\(^{25}\) “The Evening Post.”, *Evening Post*, 10 July 1871, 2.

One final point of distinction regarding the early view on the acclimatisation of trout in Wellington is that there was no perceptible preference for salmon, such as was evident in Otago and to a lesser extent Canterbury. Trout and salmon were frequently referred to in conjunction with one another, but there was no overt prioritization of salmon over trout. Eventually, writing in their 1871 AGM, the committee of the Wanganui Acclimatisation Society did state: ‘Next to salmon this [the trout] is the most attractive fish to have in our rivers and streams…’ Yet their object statement passed the following year read: ‘That the efforts of the Society be devoted chiefly to the introduction of hares, partridges, wood-cocks, snipe, rooks, English wild duck, insectivorous birds, trout, perch, and tench.’ This both confirms the preference for birds as well as indicating a lack of preference for salmon.

Fig. 20: Wellington Botanical Gardens, site of the WAS grounds, 1893

Trout arrive, despite the odds

It is hard to gauge the administrative actions of the WAS in this period, as its official annual reports only date from 1884. It is clear through the *Transactions and Proceedings of the Royal Society of New Zealand* that there was a certain amount of research being done on the suitability of Wellington waterways for trout and the indigenous species that inhabited them.\(^{30}\) It is fair to assume that following the inauguration of the WAS that it commenced a dialogue, or one of its members was already in communication, with the Canterbury Acclimatisation Society. It is the only explanation for the fact that, on 16 November 1871, with remarkably little fanfare or buildup, the WAS received a supply of trout from Canterbury. As the *Wellington Independent* reported:

> We are happy in being able to announce that a large number of English trout were yesterday successfully introduced into this Province by the Acclimatisation Society, mainly through the exertions of Mr. Travers. A part of the number were liberated in a stream tributary to the Hutt River... Another portion were placed in a stream, carefully selected as fit for breeding purposes, from which, in time, other portions of the Province may be stocked.\(^{31}\)

The *Canterbury Times* later confirmed that some 100 young trout, not ova, were sent to the WAS on the *S.S. Tararua*.\(^{32}\) That a portion of the fish were placed in a specific stream, the Kaiwharawhara, for breeding purposes is indicative of an intention to establish some form of fish breeding site in Wellington.\(^{33}\) However, writing of this introduction in its 1872 annual report the WAS recorded:

> In noticing the results of the past year’s operations, the first place in importance may fairly be assigned to the introduction of trout and perch into the rivers of this province... and we may hope that such a number of them will reach maturity as to ensure the stocking of the various rivers running into the Hutt, and ultimately of the other rivers of the province.\(^{34}\)

This is suggestive of a more organic approach to fish breeding, whereby the fish would undergo their natural spawning and over a number of years distribute themselves throughout the province. The WAS confirmed:

> It had originally been proposed to carry on breeding operations, and a pond was constructed for that purpose in the Botanical Reserve, but it was soon found that the funds which the Society might expect to have at its disposal would be entirely insufficient for that purpose. The design was, therefore, abandoned, and we must rely for future supplies of fish upon the operations of the Canterbury Society.\(^{35}\)

---


\(^{32}\) “Local & General.”, *Wairarapa Standard*, 25 November 1871, 3.


\(^{34}\) *Acclimatisation Society.*, *Wellington Independent*, 28 May 1872, 2.

\(^{35}\) Ibid.
The primary focus of the society at this time, as can be evinced through the remainder of its annual report, was on the introduction of birds to the region. Trout, whilst heralded as the greatest work the society had undertaken that year, in fact received significantly less time and effort than their avian counterparts.

The Wanganui Acclimatisation Society in May 1872 made its own arrangements with the Canterbury Acclimatisation Society to receive some fifty trout.\textsuperscript{36} It is apparent from Canterbury’s records that the Wanganui society received these trout, but no mention of their arrival or subsequent distribution was made in Wellington papers.\textsuperscript{37} Several months later, in November 1872, the Wanganui society received a further five dozen young trout from Auckland via the S.S. Wanganui.\textsuperscript{38} At the conclusion of the 1872 breeding season in Canterbury, Mr. Travers applied for 100 trout from the Canterbury Acclimatisation Society at a cost of £20 including transportation and packaging.\textsuperscript{39} These were received on board the Alhambra in January 1873: however, a good number did not survive the trip.\textsuperscript{40} It is estimated that of the 100 trout sent, some two or three dozen were liberated in the Hutt River and a similar number sent to the Wairarapa.\textsuperscript{41} Upon reporting this introduction, the Evening Post urged the public into action: ‘It is to be hoped that the public will further the efforts of the society, and see that nothing is done that may tend to prevent the full benefit being derived from this attempt to introduce trout in our waters.’\textsuperscript{42} The trout destined for the Wairarapa were transported over the Rimutakas by Mr. Carkeek and placed in a small stream behind Featherston (either Abbots Creek or Boar Creek).\textsuperscript{43} In order to facilitate the challenging overland journey from Wellington to the Wairarapa the trout had to be given fresh water at each stream the pair crossed en route. There is little subsequent information available regarding this introduction, but it was the first introduction of trout into the Wairarapa.

\textsuperscript{36} Untitled, \textit{Evening Post}, 4 May 1872, 2.
\textsuperscript{38} Untitled, \textit{Wellington Independent}, 2 November, 1872, 2.
\textsuperscript{39} Untitled, \textit{Wellington Independent}, 2 December 1872, 2; Untitled, \textit{Evening Post}, 18 January 1873, 2.
\textsuperscript{40} Untitled, \textit{Evening Post}, 18 January 1873, 2.
\textsuperscript{41} Ibid.
\textsuperscript{42} Ibid.
\textsuperscript{43} “Local & General,” \textit{Wairarapa Standard}, 18 January 1873, 2.
The WAS was not as active as its southern brethren and it is not clear whether regular meetings were held in the early 1870s. Limited annual reports exist up until 1881, but they were not reported publicly to the same extent as in either Canterbury or Otago.\textsuperscript{44} This probably explains the complaint received by the \textit{Wellington Independent} from a reader that the WAS ‘practically did not exist.’\textsuperscript{45} This was refuted by a subscriber, who stated that: ‘we have starlings at the Hutt, and Californian quail on the Karori Hills. Australian magpies and larks abound at the Wairarapa; hares have been let loose at the Domain grounds; and, lastly, we have trout in the Silver Stream.’\textsuperscript{46} The WAS itself was pragmatic as to its efforts: ‘It is, of course, unreasonable to expect that the results of such limited operations as the society has, as yet, been in a position to carry out, should be very apparent, but there is good reason for believing that their operations have hitherto been attended with marked success, and that in a few years the eastern portions of this province will be well stocked with game and other valuable birds.’\textsuperscript{47}

Despite this, in August 1874, the WAS had to refuse the offer of the Canterbury Acclimatisation Society for 2,000 brown trout ova because they lacked the facilities to hatch and rear the fish.\textsuperscript{48} The ova allotted for the Wellington society were, instead, sent to Auckland. Confirming this absence of action, in July 1875, a meeting of the WAS lapsed as a result of the lack of members in attendance.\textsuperscript{49} The report read at the meeting did, however, state that: ‘The trout in the Hutt Streams were increasing rapidly, and some fish 15 or 18 inches in length had been seen.’\textsuperscript{50} As it was now four years since trout were first introduced, and brown trout typically begin spawning after three years, it is likely that there was some natural increase in numbers across that season. However, given that the mortality rate of trout in their first year is believed to be 95 per cent, and the fact that in total less than 150 young trout had been introduced into Hutt River tributaries, it appears the WAS were viewing the introduction of brown trout through decidedly rose-tinted glasses.

\textsuperscript{44} Which is inconsistent with the extent of reporting done by the Wellington newspapers on the activities of these southern societies.
\textsuperscript{45} Ibid.
\textsuperscript{46} "Wellington Acclimatisation Society.\textit{"}, \textit{Evening Post}, 14 May 1874, 2.
\textsuperscript{47} "Wellington Acclimatisation Society.\textit{"}, \textit{Wellington Independent}, 5 March 1874, 3.
\textsuperscript{48} Untitled, \textit{Evening Post}, 22 August 1874, 2; Untitled, \textit{Evening Post}, 12 August 1874, 2.
\textsuperscript{49} Ibid.
\textsuperscript{50} Ibid.
The WaAS was equally inactive, as the *Wellington Independent* reported:

Some time ago there was a subscription list got up for an [Wairarapa] Acclimatisation Society in the district, but nothing has been heard of it now for months past. … It is a matter of surprise that no attempt has yet been made to introduce the salmon and the trout into the snow-fed rivers of Wairarapa.\(^{51}\)

This last statement is not strictly true, as trout had been liberated in Abbots or Boar Creek from the 1872 introduction, but there is no question that this represents a very limited effort to introduce trout. Perhaps in response to the *Wellington Independent*, in October 1874, the WaAS immediately arranged to receive fifty young trout and placed them in the Waipoua River running through Masterton.\(^{52}\) Whilst this does reflect a general interest in seeing trout acclimatised to the Wairarapa it is still a trifling number relative to the orders most acclimatisation societies were making. The WaAS was not solely responsible for the delayed introductions as on at least one occasion, after applying for trout from Canterbury, it was told that the water was too cold to wade and retrieve the requested fish prompting the *Evening Post* to query whether: ‘…the Canterbury people are as jealous of their trout and their game as they are of their land fund?’\(^{53}\) This hints at a traditional English approach to trout, and is in keeping with the Canterbury Acclimatisation Society’s attempt to restrict Johnson’s access to trout ova. It does not, however, stand up to scrutiny, as Canterbury played an essential role in distributing trout throughout the country.

The delayed nature of the introduction of trout to Wellington and the Wairarapa is best contextualised by considering that by 1875 both Canterbury and Otago had propagated and distributed sufficient fish to open up a limited number of rivers to angling. It is likely that some explanation for this delay can be found in the actual structures of the WAS and WaAS. Over this period, it is apparent that the WaAS functioned more as a group of individuals who independently organized introductions, as opposed to a cohesive society. The WAS appears to have had a slightly more functional structure, and yet a number of the usual traits of an acclimatisation society, such as annual and meeting reports, were absent or infrequent. The Wellington region was, as a result of economic and administrative reasons, a less coherent region than Canterbury or Otago. But perhaps the greater impact was derived from environmental factors such as the physical fragmentation of the region and especially the relative

\(^{52}\) “Local and General,” *Wairarapa Standard*, 24 October 1874, 2.
\(^{53}\) Untitled, *Evening Post*, 1 August 1876, 2.
lack of freshwater influence in Wellington city. This also explains why the Wairarapa, once populations and social structures had developed by the 1870s, was the more motivated. By far the greater population base existed in Wellington city, and yet the Wairarapa was home to many rivers and streams of a kind that immediately evoked thoughts of trout to colonists.

Fig. 21: Example of a wooden box used to transport salmon and trout ova, c.1860s

After many years of non-committal attempts to introduce brown trout, the first large-scale importation was undertaken in October 1876 by Mr. Andrews of the Wairarapa when 2,000 ova were brought to Mr. Beetham’s station at Brancepeth and placed in hatching boxes prepared for them. This represents a marked shift in both the scale and form of introductions, as, for the first time in the Wellington region, facilities had been constructed to deal with an importation of ova (see Fig. 21). There is scant information available as to the construction of the boxes, the exact hatching process, or the subsequent distribution of the trout. It is also not clear from which society they were received, as the newspaper report gave no information nor does this introduction accord with the available records of the Otago, Southland and Canterbury Acclimatisation Societies. The last remaining candidate, for whom records are not available, is Andrew Johnson who had commenced selling ova by this stage. It also

55 Untitled, Evening Post, 5 October 1876, 2.
appears likely that Mr. Andrews, whilst endorsed by the WaAS, undertook this introduction in an individual capacity. The 1877 annual meeting of the WAS reported the liberation of six trout in the year prior, yet there is no mention of any ova being received by the society during the year.\textsuperscript{56} Given the lack of information regarding the receipt of these trout, we could assume they comprised a portion of the ova received in the Wairarapa. Approximately 90 of these fish were placed in the Wainuiomata River, but as with all early Wellington introductions information is limited.\textsuperscript{57}

The Wanganui Acclimatisation Society, who had for several years been dormant in the area of pisciculture, received 1,000 young trout from Canterbury, which were immediately placed in suitable streams around Wanganui, Turakina and Rangitikei.\textsuperscript{58} By 26 January 1878, the Wanganui Acclimatisation Society had received a further 3,000 young trout and placed them into the Wanganui River.\textsuperscript{59} Similarly, the recently formed Manawatu Acclimatisation Society, received some 200 live young trout from Canterbury.\textsuperscript{60} Because of the lack of hatching facilities, the importations into the Wellington region primarily took the form of young trout rather than the typical ova. The direct actions of these smaller acclimatisation societies represent a less centralized distribution system for trout than seen in other parts of the country, which likely arose as a result of the lack of a strong central society. It also serves to further enforce the argument for environmental factors being a fundamental factor in the introduction of trout, as both Wanganui and Manawatu have major bodies of freshwater flowing through their townships. In 1879, the Wanganui Acclimatisation Society decided to make their trout acclimatisation scheme more permanent, with the construction of hatching boxes and by arranging with the Otago Acclimatisation Society to receive some 10,000 ova.\textsuperscript{61} Meanwhile, the WAS continued to be reliant on the Canterbury Acclimatisation Society for its ova, with another lot of fish arriving in October 1880 for Wairarapa, Wellington and New Plymouth.\textsuperscript{62} In order to further facilitate the introduction of trout, without putting the WAS under financial strain, an advertisement was run in October 1881 by Johnson and Mr. Denton, treasurer of the

\textsuperscript{56} Untitled, \textit{Evening Post}, 18 May 1877, 2.
\textsuperscript{57} Untitled, \textit{Evening Post}, 20 May 1880, 2.
\textsuperscript{58} Untitled, \textit{Evening Post}, 29 October 1877, 2.
\textsuperscript{59} Untitled, \textit{Evening Post}, 26 January 1878, 2.
\textsuperscript{60} Untitled, \textit{Evening Post}, 15 December 1877, 2.
\textsuperscript{61} Untitled, \textit{Evening Post}, 4 March 1879, 2.
\textsuperscript{62} “Latest Telegrams.”, \textit{Wairarapa Standard}, 7 October 1880, 2.
WAS, offering 100 trout from his Opawa hatchery for £2 delivered alive at the Wellington wharf. The hope was that private individuals might wish to purchase trout from Johnson and place them in streams on their property, not only providing them with the personal benefit of having trout on their property but also benefiting the region in a broader sense.

**Trout fishing in Wellington**

In early 1880 upon the publication of an article denoting the number of trout visible in the Wainuiomata River, the *Evening Post* felt compelled to proclaim ‘that the trout are under the protection of the law, and cannot be caught or molested without heavy legal penalties being incurred.’ Remarkably, in early 1881 the WAS believed trout to be sufficiently widespread in both the Hutt and Wainuiomata Rivers that a limited season was opened up for them, with licences costing £1 from the WAS. By March only two licences had been applied for and there was a widespread perception that the fish were not numerous and that sport would be poor. It is important to note that the Hutt and Wainuiomata Rivers, now a brief trip on a motorway from Wellington, were substantially more difficult to access in 1881 (see Fig. 22). Thus, the lack of licences may speak to the inaccessibility of fresh water and trout fishing proximate to Wellington’s population, as compared with Otago and Canterbury. Writing of the actions of the Wellington society in 1881, New Zealand’s pre-eminent expert on pisciculture, William Arthur, stated: ‘Fish breeding in the province of Wellington, which was started in 1874, does not appear to have been either very extensive or very successful.’ That there were believed to be sufficient fish to open the rivers to angling must be considered a testament to the natural spawning of the fish, as the introductions to these waterways were both erratic and minimal.

The following summer there was greater organization around the instigation of a fishing season, with “Conditions for trout fishing in Wellington” being gazetted on 7 October 1881. The season was to run from 1 October until 30 March and licensees

---

68 Untitled, *Wairarapa Daily Times*, 8 October 1881, 2
were entitled to fish with rod, line and artificial bait only in the Hutt River and tributaries, excepting the Pakuratahi, and the Wainuiomata River.\(^{69}\) Trout under eight inches were to be returned alive, and any angler failing to do so or fishing without a licence was liable for a fine of up to £20. Perhaps as a result of the increased coverage that the introduction of trout was receiving in the press, in conjunction with a material increase in the number of fish present in streams, the 1882/3 trout fishing season proved far more popular with a significant increase in licence sales.\(^{70}\) In stark contrast to the southern provinces, where bait could be used, the WAS specified that the only artificial flies were acceptable.\(^{71}\) In October 1883 the *Evening Post* reported that: ‘The Wainuiomata Valley was quite besieged with visitors on Monday, the opening of the angling season. The weather was not altogether propitious, being bright sunshine, but nevertheless some good baskets are reported to have been made.’\(^{72}\) Frequent reports in newspapers of ova imported and trout seen in Wairarapa Streams, appeared in the *Evening Post*. On 5 March 1885 the paper stated that: ‘It is probable that next season the Wairarapa streams will be opened for angling.’\(^{73}\) Wellington had, to a limited extent, been open for angling since 1881 and yet the Wairarapa streams remained closed despite having recently led the acclimatisation charge. Finally, following the unification of these societies in 1884, the fishing licence system was amended, with licences now purchased from the secretary of the WAS for the fee of one guinea. They were applicable throughout the WAS’s area of influence.\(^{74}\) As a result, the Wairarapa Rivers were opened to angling for the first time in 1885. An innovation not offered by southern societies, was the addition of a day licence at a cost of 2s 6d for those anglers simply wanting to enjoy the occasional day’s fishing but not wishing to commit to the cost of a season licence.\(^{75}\) This appears to be the first instance of this concept, which continues to apply today.

There is a pronounced disparity in the amount of information available about Wellington angling as compared to that of either Otago or Canterbury, to a certain extent explained by the delay in introducing trout and their scarcity until the mid to

\(^{69}\) Ibid.
\(^{70}\) Ibid.
\(^{71}\) “Five Months’ Revenue.”, *Evening Post*, 26 September 1883, 2.
\(^{72}\) “A Public Scandal.”, *Evening Post*, 3 October 1883, 2.
\(^{74}\) Untitled, *Evening Post*, 2 October 1885, 2.
\(^{75}\) Ibid.
late 1880s. The idea of an angling society was not raised until March 1888, when the *Wairarapa Daily Times* ran a column which stated: ‘The time has certainly arrived when our local “Rodsters,” whose number is now considerable, should take some steps to form an organization, if only to conserve their own interests.’ At the end of March a meeting was held at Mr. Williams’ residence with 20 gentlemen in attendance. Here they established the Wairarapa Anglers Society and stated that it should be run on the same lines and by the same rules as the Canterbury Anglers’ Society. The three objects of the society were the prevention of illegal fishing and of the destruction of fish, as well as to encourage the stocking of rivers with fish. To this end the Anglers’ Society wrote to the Masterton Borough Council drawing their attention to the state of the Waipoua river and the significant amount of rubbish deposited there, which they argued was dangerous to health as well as causing destruction to young trout. The following month the Inspector of Nuisances was ‘instructed to inspect the Waipoua River and report on the alleged nuisance caused by the refuse of flaxmills…’ Thus the environmental awareness that trout fishing was a conduit for in the southern regions can be seen to have occurred in Wellington too.

The Anglers’ Society also made recommendations as to the distribution of trout based on the catch rates of their anglers, with rivers not producing high catch rates often recommended to receive more fish from the WAS. These recommendations were then addressed by the WAS and a response to the Anglers’ Society issued. However, the WAS and the Anglers’ Society did not always see eye to eye. When, in late 1889, the WAS proposed to close the Makora Stream so as to preserve its usefulness as an adjunct to the fish ponds, the Anglers’ Society were fearful that ‘The act of closing streams is infectious…’ and that local opportunities might be unduly limited. Mr. Beetham, the ardent acclimatiser, wrote to the *WDT* in response, clarifying that it was only a few hundred yards of the Makora that was to be closed and only for the purpose of collecting more ova so as to sooner stock the district. Similarly many of

---

77 “Sporting.”, *Wairarapa Daily Times*, 2 April 1888, 2.
78 Ibid.
80 “Masterton News.”, *Evening Post*, 21 August 1889, 2.
82 “Railway Reform.”, *Wairarapa Daily Times*, 10 September 1889, 2.
83 “Angry Anglers.”, *Wairarapa Daily Times*, 5 October 1889, 2.
84 “Angry Anglers.”, *Wairarapa Daily Times*, 14 October 1889, 2.
the Masterton anglers felt that the local streams were stripped of the ova of their trout so as to benefit the wider region, but in so doing the local streams were deprived of future fish.\textsuperscript{85} The WAS refuted this point stating that only a small proportion of the fish in those streams were stripped, and that these streams in fact received the highest proportion of trout fry from the hatchery.\textsuperscript{86} Finally, one interesting point raised by Alexandra Dekker was with regard to the number of female anglers taking licences out in Wellington in the mid-1890s.\textsuperscript{87} In no other region did this crop up. The role of gender in the introduction of trout to New Zealand, and the ensuing culture surrounding trout, would be worthy of further study.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{1907.jpg}
\caption{A favourite reach of the Hutt River, near Wellington, 1907\textsuperscript{88}}
\end{figure}

\textsuperscript{85} “A Labor Harvest.”, \textit{Wairarapa Daily Times}, 7 October 1889, 2.  
\textsuperscript{86} ibid.  
**Increasing introductions**

For many years, the few trout that the WAS had received were distributed exclusively into the Hutt and Wainuiomata Rivers until, in late 1881, a number of fish were introduced into a range of smaller streams more local to Wellington city itself. At some point in this period boxes for the reception and hatching of trout ova were also constructed at Mr. Denton’s property. By 1882 it is evident that the WaAS had, in effect, ceased to function as an entity and that all importations of trout were individually organized and facilitated. This was confirmed by the WaAS in its 1884 annual report: ‘This account [of the history of the introduction of trout to Wairarapa] must necessarily be very imperfect, as most of the attempts have been made by private individuals, of which no records have been kept.’ This proved the catalyst required to finally give impetus to the introduction of trout to Wellington on a large scale. Following arrangements by Mr. Beetham for the introduction of 5,000 trout ova from Christchurch it was suggested by the *Wairarapa Daily Times* that ‘some of the principal land owners in this district are likely to form a society with a view to stock the Wairarapa streams in a systematic and efficient manner.’ On 7 July 1882 Mr. Beetham took out an advertisement in the *Wairarapa Daily Times* notifying anyone interested of his intentions to start a Wairarapa Acclimatisation Society ‘for the introduction of trout ova and other purposes…’ At the meeting, on 11 July, the Wairarapa Acclimatisation Society was re-established in a more formal capacity. Just one day later, the 5,000 ova arrived from Christchurch and the following day was placed in boxes prepared for their arrival at Mr. Parson’s brewery. This event received greater attention from the press than previous introductions, with the *Wellington Standard* enthusing:

> Within the hatching house are eight square boxes fitted with movable covers, in the bottom of which about 5,000 trout ova are deposited. In order that the water constantly flowing through the boxes may be properly aerated the apparatus is so constructed that each box is fed from four jets. There is also an ice-chest with an ample supply of ice alongside, and a thermometer is kept constantly in the water so that the temperature may be regulated.

---

90 “By Telegraph.”, *Evening Post*, 22 September 1882, 3.
In order to fund the ongoing activities of the WaAS and the construction of further facilities, it was agreed that a limited number of this batch of ova would be sold to subscribers at 50s per hundred.\textsuperscript{97} It was also suggested that a pond be created and several older trout from the Hutt River be placed in it so that the WaAS ‘could depend upon their own ova next season.’\textsuperscript{98} It is interesting that this push occurred in the more sparsely populated Wairarapa, rather than Wellington. I believe two factors explain the reason for this. Firstly, trout fishing in the United Kingdom is a quintessentially country pursuit, more in keeping with the dynamic of Wairarapa landowners than the more administrative and commercially oriented Wellington.\textsuperscript{99} Secondly, as mentioned above, freshwater was a far more immediate factor in the Wairarapa environment as compared with Wellington.

To capitalize on the momentum 26,000 brown trout ova were ordered from Dunedin and arrived in Wellington on 22 September.\textsuperscript{100} 6000 of these were forwarded on to the Wanganui Acclimatisation Society and the remaining 20,000 were split evenly between the WAS and WaAS. The scale of this order was unprecedented in Wellington, and indicated that the acclimatisation of trout was finally being undertaken in a serious and organized fashion. By the end of September the WaAS had prepared a suitable pond and entered into arrangements with the WAS to take approximately 20 adult trout from the Wainuiomata stream for breeding purposes.\textsuperscript{101} In the same period, the 5,000 ova from Christchurch had hatched in the boxes at Mr. Parson’s brewery and the stocking programme began in earnest.\textsuperscript{102} Some 1,500 trout were sold, presumably to society members, and a further 300 were liberated into Renall’s Creek.\textsuperscript{103} To conduct these liberations, young trout were placed in a billy filled with fresh water and were fed a small quantity of boiled liver if the trip was particularly long.\textsuperscript{104} That there was a genuine interest in the local community for the introduction of trout to local waterways can be evinced by the pooling of funds by

\textsuperscript{97} Untitled, \textit{Wairarapa Daily Times}, 4 September 1882, 2.
\textsuperscript{98} Ibid.
\textsuperscript{100} Untitled, \textit{Wairarapa Daily Times}, 23 September 1882, 2.
\textsuperscript{101} Untitled, \textit{Wairarapa Daily Times}, 27 September 1882, 2.
\textsuperscript{102} Untitled, \textit{Wairarapa Standard}, 28 September 1882, 2.
\textsuperscript{103} Ibid.
\textsuperscript{104} “Trout.”, \textit{Wairarapa Standard}, 30 September 1882, 2.
settlers in Greytown to purchase a number of trout for the Waiohine River.\textsuperscript{105} The WAS were equally attentive, liberating over 1,000 young trout into the Hutt River from ova obtained from Christchurch on 10 November.\textsuperscript{106} This was supplemented a week later by a further 1,500 young trout, bringing the total number of fish liberated into the Hutt to over 4,000.\textsuperscript{107} There is far less information available regarding how the Wanganui Acclimatisation Society was faring, but the success of their introductions is attested to in reports such as the following: ‘The natives recently caught a fish in the Wanganui River which turned out to be a brown trout.’\textsuperscript{108}

By late 1883 there was still no mention of a breeding programme being undertaken in the Wellington region, and in September 1883 the WaAS imported a further 15,000 trout ova to supplement their stocks.\textsuperscript{109} Because of the substantial sales of trout, which netted the WaAS over £50, the society was able to operate its pisciculture program at a slight profit.\textsuperscript{110} As a result of the sheer number of trout ova that had hatched in their facilities the WaAS offered 15,000 trout for sale at a price of 10s per 100 fish.\textsuperscript{111} Writing on the efforts of the WaAS the \textit{Wellington Standard} declaring:

> The efforts of the society had so far turned out most satisfactorily, a large number of trout having been liberated in the streams and rivers of the district, which were gradually becoming well stocked with splendid fish. The hatching had been accomplished with a remarkably small percentage of losses, a fact due very greatly to the care and trouble manifested by Mr. Parsons, who of late had taken nearly the whole of the actual work of attending to the fish and ova entirely on his own shoulders.\textsuperscript{112}

Sadly the illustrious number of 15,000 ova was greatly reduced by a raid made on the WaAS troughs by a horde of rats.\textsuperscript{113} It is unclear whether the rats consumed 3,000 or 8,000 ova, as reports vary, but either way it was a substantial loss.\textsuperscript{114} All remaining ova were, however, successfully sold for distribution throughout the region.\textsuperscript{115}

In January 1884, Wellington found itself the beneficiary of the attempt by the Otago Acclimatisation Society to bring Loch Leven trout to New Zealand, as discussed in
Chapter Four. The most viable ova were forwarded on to Otago, while the remaining ova were placed in the hatching boxes of the WaAS. Upon opening the box it was discovered that approximately 1,000 ova were still alive.\(^{116}\) In March of the same year a further shipment of trout and salmon ova was sent on the *Ionic* to Wellington, ostensibly for Otago and Southland, but a portion of the trout ova were set aside for Wellington.\(^{117}\) These ova were the highly prized salmon trout ova and were sent to the WaAS in Masterton, whose facilities were becoming preferred as the breeding grounds for trout in Wellington.\(^{118}\)

What is particularly notable about the *Ionic* introduction is that for the first time refrigerated shipping was used to ensure the safe transportation of trout across the globe.\(^{119}\) As the *Wairarapa Daily Times* states: ‘The new machine [a refrigerator] seemed to be a success, and we may hope that with a few improvements in the machinery a way has been opened up for thoroughly stocking our rivers with that beautiful but delicate fish, the salmon.’\(^{120}\) Unfortunately, following the successful hatching of these fish, ‘the premises of the Wairarapa Acclimatisation Society were robbed of a considerable amount of young salmon trout.’\(^{121}\) The robber made off with 10,000 out of 15,000 ova and a reward of £5 was offered to anyone able to provide information leading to the detection of the guilty party, but it does not appear that anyone was apprehended.\(^{122}\) This was the second such instance, after the robbery of the Otago facility in 1868. By this stage, the Loch Leven trout shipped on the *Aorangi* had hatched out in the WaAS grounds and the *Wairarapa Daily Times* was quick to assert their value: ‘These latter [the Loch Leven trout] are very valuable, at present there being only, we understand, about 1,200 in the colony, and for one of these fish 1,000 of the ordinary ova can be obtained.’\(^{123}\) Both the Loch Leven and salmon trout proved to be a valuable commodity for the WaAS, with the Canterbury Acclimatisation Society trading 10,000 brown trout ova for a far smaller number of...

\(^{116}\) “Mr. Wakefield.”, *Wairarapa Daily Times*, 21 January 1884, 2.

\(^{117}\) Untitled, *Evening Post*, 13 March 1884, 2.


\(^{119}\) “Coming Up Smiling.”, *Wairarapa Daily Times*, 17 March 1884, 2.

\(^{120}\) Ibid.

\(^{121}\) “The County Rate.”, *Wairarapa Daily Times*, 26 April 1884, 2.

\(^{122}\) “Wairarapa Acclimatisation Society.”, *Wairarapa Daily Times*, 30 June 1884, 2; “Mr. Coleman Phillips.”, *Wairarapa Daily Times*, 29 April 1884, 2.

\(^{123}\) Untitled, *Wairarapa Daily Times*, 21 March 1884, 2.
Loch Leven and salmon trout. This is also the first instance of a Wellington society furnishing another acclimatisation society with ova and reflects the growth of acclimatisation in Wellington across this period.

Fig. 23: Releasing trout fingerlings, Taranaki, c.1920s

**Uniting the societies and expanding operations**

Since their inception, the acclimatisation societies operating in the Wellington region had been fragmented, much like the region itself, and their operations in stocking trout in the local waterways had been hindered as a result. This can be directly contrasted with the southern regions, where operations were largely built around one dominant society complete with breeding facilities and several satellite societies operating on a more localized level. The central society typically either received direct contributions from the satellite societies, or simply sold the ova to the satellite societies, in order to fund the operation of the facilities. However, for the first 20

---

125 John Reginald Wall, “Men Carrying Cans Labelled Hawera Trout Hatchery,” National Library of New Zealand, [Accessed 6 December 2017: https://natlib.govt.nz/records/23208419]; Whilst occurring outside the immediate period of study, this remains a valuable illustration as the techniques used to transport trout illustrated in this image were the same as used in the initial introductions around the Wellington region.
years of acclimatisation in Wellington each society operated largely independently, funding its own operations. Dekker observed this fragmentation, however as hers was a regional study the extent to which Wellington differed from other regions was not expounded upon. From approximately 1880 onwards the WAS and WaAS conducted their introductions in conjunction with each other, yet each still attempted to run their own facilities despite being a short distance from each other. Again, social factors do relatively little to explain this fragmentation with the more likely culprit the geographic separation that the Rimutaka range provided.

At the 1884 WaAS annual meeting the primary topic of conversation ‘was the amalgamation of the Wellington, Woodville, Manawatu, Wanganui and Hawke’s Bay Societies, for the purpose of enlarging the houses here for hatching, as the situation was very suitable and the water very good and that a man thoroughly well up to the work should be employed.’ It was proposed that the WaAS leased some seven or eight acres of land with running water from Mr. Renall and constructed a hatching house capable of hatching 100,000 eggs per year at a cost of about £50. While this notion was mooted by the other societies, the WaAS appeared the most motivated to increase their operations, receiving 15,000 ova from Canterbury and 30,000 from Dunedin. The following year, Mr. Beetham was also able to strip 35,625 ova from trout in the Wainuiomata River and deposited them in the WaAS hatching boxes at Masterton. During this period the Wellington acclimatisers also appeared to belatedly catch salmon fever, with some focus shifting to establishing populations of the ‘king of fish’ in North Island rivers.

At the end of September 1884 an advertisement ran in the Evening Post stating that: ‘The attendance of all persons interested in stocking the North Island rivers with salmon and trout, and in acclimatisation generally, is particularly requested.’ This

---

126 Ibid.
127 Dekker, “Freshwater Colonists”, iv.
129 Ibid.
130 Ibid.
132 “A Mail Service Via Canada.”, Evening Post, 23 September 1885, 2.
133 Untitled, Evening Post, 8 September 1884, 3.
meeting was held to discuss the previously mooted unification of the Wellington and Wairarapa societies. At the meeting, held on 24 September, the Wellington and Wairarapa District Acclimatisation Society (following the merger referred to simply as the WAS) was formed, with the council being comprised of the most active members of each of the individual societies.\textsuperscript{134} The WAS superseded both the Wellington and Wairarapa societies and each ceased to operate independently. Under the unified society the Masterton fish hatching establishment came to be the central point of pisciculture in Wellington, much as the WaAS had suggested in their 1884 annual meeting. Some operations continued at Mr. Denton’s in Wellington, but they were minor relative to the extent of the Masterton operations.\textsuperscript{135} As the WAS later observed:

> Experience in other countries, and in our Southern Island, has shown, that to carry on the work of Pisciculture in such a manner as to effect speedy results, large numbers of fish must be reared and liberated annually. This policy has been consistently adhered to, all the funds and energies available having been concentrated in extending and improving our fish hatchery at Masterton, and to-day we have there a hatchery and rearing establishment, the advantages of which are self-evident.\textsuperscript{136}

This unification was further made feasible by the completion in 1878 of the Rimutaka Incline railway line that ran from Wellington to Featherston, bringing the first substantial transport route between Wellington and the Wairarapa to fruition. This concentration of enterprise proved to be a vastly more efficient means to raise and distribute trout, and permitted the Wellington region to make strides towards catching up to the southern provinces.

To maximize the efficacy of its stocking program, the WAS expanded its importations of ova from the southern provinces, with a further 20,000 imported from Canterbury in late September and upwards of 100,000 requested from the Lakes District Acclimatisation Society.\textsuperscript{137} Supplementary to this the WAS also received a small quantity of the Scotch Burn trout imported for the Otago Acclimatisation Society on

\textsuperscript{134} The naming of the society is discussed later in this chapter, but overall the most applicable abbreviation for the unified society is WAS. “Over-Government.”, \textit{Evening Post}, 25 September 1884, 2.

\textsuperscript{135} Untitled, \textit{Evening Post}, 21 October 1885, 2.

\textsuperscript{136} Wellington Acclimatisation Society Annual Report 1887, MSX-6855, Alexander Turnbull Library, Wellington, New Zealand, 7.

In a visit to the Masterton hatching house in May 1885 a reporter for the *Wairarapa Daily Times* described the mechanics of the operation as follows:

> Nearly all of the available space has been taken up with these boxes, through which a stream of fresh and remarkably clear spring. The ova is thus kept in a running stream of an even temperature, and it is found that this is an improvement on nature, as a far greater percentage of fish is obtained.139

Also contained on the site was a four-room cottage for the curator in charge of the establishment, who had constructed most of the facilities.140 On 25 September 1885 the unified WAS held their first annual meeting. There it was noted: ‘During the past year 16,700 fish have been liberated from the Masterton hatching establishment, and if the work is vigorously prosecuted for a few years more, it may confidently be hoped that the fishing in the Wellington Province will be equal to that in any other part of New Zealand.’141 The Masterton facilities had been inspected by a number of pisciculture experts, including Mr. Farr of the Canterbury Acclimatisation Society, and were deemed to be ‘exceedingly good.’142

The unification of the societies and the concentration of focus and funding it brought about saw a significant increase in trout liberations, with the WAS moving from 16,700 trout liberated in 1884-1885 to over 100,000 the following season.143 The benefits of a centralized hatching system were outlined in an annual report of the WAS: ‘…all the funds and energies available having been concentrated in extending and improving our fish hatchery at Masterton, and to-day we have there a hatchery and rearing establishment, the advantages of which are self-evident.’144 The sole complaint that was levied at the facilities was aesthetic.145 However, this was remedied quickly and as the 1886 annual report read: ‘The Masterton fish ponds have been very much improved during the year, and will now bear favourable comparison with any other establishment of the kind in the colony.’146 In the 1886 spawning season, the curator placed a greater focus on securing spawn from local trout and by

---

140 “The Masterton Fish-Breeding Establishment.”, *Evening Post*, 7 May 1885, 2.
141 “Wellington and Wairarapa Acclimatisation Society.”, *Evening Post*, 26 September 1885, 2.
142 Ibid.
145 The grounds were believed to be barren and unattractive; “A Masterton Pleasure Ground.”, *Wairarapa Daily Times*, 22 July 1886, 2.
146 “Wellington Acclimatisation Society.”, *Evening Post*, 18 September 1886, 2.
the start of June had obtained over 40,000 ova. By 1886 there was a noticeable decrease in the reliance on southern societies for ova, and it is quite possible that the WAS by then could consider its trout stocking programme self-reliant. Importations were still made of novel or rare types of trout ova, but in essence the WAS had all that it required to carry out a comprehensive stocking of the waterways of the Wellington region with brown trout.

At the 1886 annual meeting, it was decided to change the name of the society from the “Wellington and Wairarapa Acclimatisation Society” to simply the “Wellington Acclimatisation Society.” This prompted concerns in the Wairarapa that they had disbanded their local society in order to form the current regional society and that “we [the Wairarapa] are absorbed in the provincial nomenclature, and this district ceases to be known to fame as an acclimatizing agent.” It was apparent that the actual focus of the society remained the same:

We have, however, the satisfaction of knowing that our primary interest, which is to stock the Wairarapa streams with fish, is not likely to suffer by the change of name, and we have also the consolation that the main revenue of the Society will be expended on the Masterton establishment.

That there was a genuine interest in the Wairarapa in seeing the Masterton hatchery prosper can also be attested to by the grant of £10 by the Masterton Town Lands Trustees to the WAS for the improvement of the society’s grounds. In making his submission to the Trustees, Mr. Beetham stated: “…we now have one of the finest pisciculturalist establishments in the Colony, which we feel convinced will shortly be the central Fish Hatchery in the North Island.” In 1888, the total number of fish hatched at the establishment was nearly 200,000, which likely contributed to the price

---

147 “Railway Returns.”, *Evening Post*, 4 June 1886, 2.
148 Although substantial importations were still made occasionally, such as 50,000 brown trout received from Dunedin in September 1888; “The Incapables.”, *Wairarapa Daily Times*, 8 September 1888, 2.
149 For instance in 1887 an importation from England of Loch Leven trout, Rhine brook trout, Alpine Charr and Carpion trout ova was split between the Canterbury Acclimatisation Society and WAS; “Salmon and Trout Ova for New Zealand.”, *Evening Post*, 28 March 1887, 3.
151 I can attest to this, as my research into both Otago and Canterbury preceded my research into Wellington and the ubiquitous usage of the term “Wellington Acclimatisation Society” undersold the significant role the Wairarapa played; “The Wellington Acclimatisation Society.” *Wairarapa Daily Times*, 20 September 1886, 2.
152 Ibid.
154 “Ibid.
dropping to 10s per hundred fry or £3 10s per thousand. That the Masterton fishponds had become the central hub for all trout distribution in Wellington is demonstrated by the fact that following the 1888 spawning season it was ‘intended shortly to forward quantities of fry to the Wanganui, Rangitikei, and Taranaki Acclimatisation Societies, and also to send a further consignment to Hawke’s Bay.’ Mass distributions such as these were frequent throughout 1888 and many of the societies receiving ova subscribed towards the maintenance of the Masterton fishponds (see Figs. 23 and 24).

Fig. 24: The WAS facilities at Masterton, 1908

---

The advent of a railway line between Wellington and the Wairarapa likely contributed to the unification of the societies, but there was no evidence of trout being distributed by rail until 1886. In November 1886, members of the WAS loaded a rail car in Wellington with several thousand trout and distributed them in the Waikanae, Otaki, Waikawa, Ohau and Tokomaru rivers. In certain instances the railway authorities even permitted unscheduled stops where the tracks ran near to or across a stream so that trout could be placed into these waterways. As the Evening Post stated: ‘Now that through railway communication is thoroughly established there seems to be no reason why one hatchery, properly supported, should not supply fish and ova sufficient to stock the rivers in the Wellington Provincial District with more efficiency and economy than could be effected by a number of isolated hatchings on a small scale with insufficient means.’ This is exactly what occurred, with the Masterton site now providing the role of a central hub facility that had previously been lacking in Wellington. In the space of five years Wellington had transitioned from a very minor player in the introduction of trout, with no breeding or hatching facilities to speak of, to hosting one of the most substantial pisciculture operations in the country. The proximity to the capital also saw governmental contributions and purchases of trout for distribution to more further afield regions.

Protecting the trout

With trout an established feature by the early 1880s, the issue of their predation had become increasingly prevalent in the newspapers. As the Evening Post stated:

Great destruction is, we hear, being worked by shags upon the young trout in Upper Hutt. The havoc which these voracious birds can cause among the young fish is quite remarkable, and unless a war of extermination is waged with the feathered robbers the efforts of the acclimatisers to stock that river will be rendered futile.

There is no question that shags did predate on trout, but it reflects an interesting environmental philosophy to promote the destruction of a native species to allow an introduced one to prosper and speaks to the very heart of the notion of environmental improvement. In 1883, the WaAS instigated a reward of 1s 6d per head for any shag

---

159 This is not to suppose that there wasn’t some transportation of trout via rail prior to 1886, but simply that it only became significant and systematic in 1886.
160 Untitled, Evening Post, 23 November 1886, 2.
161 “The Libel Case,” Evening Post, 7 September 1889, 2.
162 Ibid.
164 Untitled, Evening Post, 28 December 1883, 2.
destroyed in the Wairarapa. The Wellington acclimatisers also sought to protect trout from eels, although this was less common in the period of this study. The protection of trout can be contrasted with the protection offered to the native tui (*Prosthemadera novaseelandiae*), which did not threaten the destruction of any valuable introduced species. A £1 reward was offered for information leading to the conviction of any person killing tui; however, a £5 reward was offered for information leading to the conviction of any person killing a wide range of introduced species including trout and pheasants. Tui were valued, and their preservation encouraged, but the value ascribed to them was substantially less than many introduced species.

Compared with other regions, there is a significant lack of either poaching, or reporting of poaching, in the Wellington region. Despite trout having existed in Wellington since 1871, the first major reference to poaching did not occur until 1885 when it was reported that: ‘The Maories are fast clearing the streams in the neighborhood of Masterton of trout. … They have heard that the streams have been thrown open for fishing, and they naturally pursue their old mode of catching fish.’ Following this article the WAS consulted with local Māori and it was reported that ‘since they have been warned not to net trout, as it was desired that they should increase, [the local Māori] have expressed themselves willing to give every assistance to the Society.’ There was more consultation with Māori evident in Wellington as compared with Otago and Canterbury, albeit retrospective and to explain and enforce regulations rather than to actively involve Māori in the process. Overall, however, there is a very direct correlation between the increasing distribution of trout from the Masterton hatchery in the mid-1880s and instances of poaching, indicating that the reason for the lack of poaching prior was not virtue on behalf of Wellington settlers but simply that it was not a worthwhile activity given the lack of fish.

In 1887 it was reported that local Māori in Pahiatua had taken one hundred weight of trout, whilst in Masterton ‘the Natives can be seen almost daily carrying trout from

---

166 Dekker, “Freshwater Colonists”, 77.
the [Waipoua] river… Pākehā settlers were equally guilty in this latter instance, where they were regularly seen spreading nets across the Waipoua.\(^{171}\) This issue continued into the following year, when low water conditions and stranded trout facilitated a particularly simple form of poaching.\(^{172}\) Mr. Ayson at the time made a trip to the Waipoua, but primarily in order to assess the damage rather than prevent any poaching. With increased licence sales for angling compared to previous years it was unsurprising that those paying for the right to fish were upset by these illegal actions. As one ‘disgusted licensee’ wrote to the *Wairarapa Daily Times*: ‘Does it not seem strange that no effort is made to protect the trout which at such great cost and trouble have been placed in our rivers? … Indeed, the only persons who are under any restraint whatever are those who have paid for the privilege of fishing.’\(^{173}\) It is not entirely true that the WAS took no steps to protect the trout, as in 1885 a number of policemen were made rangers under the *Salmon and Trout Act 1867*.\(^{174}\) However, contrasted with the steps taken in other provinces to prevent poaching the WAS appears to have been extremely inactive. There was remarkably little effort made to clarify the laws pertaining to trout aside from an occasional advertisement in the papers and no prosecutions took place until 1888. This can be strongly contrasted with other provinces, where examples were made of poachers and heavy fines levied as a deterrent.

Finally, in May 1888 a prosecution was brought against Henry Wiseman under the *Fisheries Conservation Act 1884* for fishing with a net at the mouth of the Hutt River.\(^{175}\) Mr. Gray, prosecuting for the WAS, stated that:

Poaching and illegal fishing was carried on to a very large extent, but the Society had never yet been able to catch the offenders. If the present case were proved he [Mr. Gray] would ask the bench to inflict a substantial fine, so that it might act as a preventative to similar practices in the future.\(^{176}\)

Rejecting the defence’s assertions that Mr. Wiseman was fishing on private water, the judge found for the prosecution and fined Mr. Wiseman £3 but specified that


\(^{172}\) “Trout in the Waipoua River.”, *Wairarapa Daily Times*, 18 February 1888, 2.

\(^{173}\) “Correspondence.”, *Wairarapa Daily Times*, 18 February 1888, 3.

\(^{174}\) “Telephone Exchange Charges.”, *Evening Post*, 3 January 1885, 2.


\(^{176}\) Ibid.
subsequent cases of this nature would be met with far heavier penalties.\textsuperscript{177} In advertising their 1888 licence the WAS also offered a reward of £5, supplemented by a further £5 from the Anglers’ Society, for the first conviction for dynamiting, netting or spearing trout in the rivers around Masterton.\textsuperscript{178} The \textit{Wairarapa Daily Times} also contained a full article outlining the exact fishing regulations of the 1888/1889 season in a bid to educate the public so as to minimise poaching.\textsuperscript{179} Despite these efforts, it appears that where there were trout there would be poaching: in early 1889 it was reported that several men had detonated dynamite in the Waipoua and Waingawa Rivers and made off with sugar-bags full of trout.\textsuperscript{180} They were apprehended and charged in the Magistrate’s Court with ‘taking trout from the Waipoua by means of exploding dynamite.’\textsuperscript{181} In prosecuting the case for the WAS Mr. Beard stated: ‘a more dastardly thing it was impossible to imagine than the wholesale destruction of fish…’\textsuperscript{182} The act of using dynamite could not be proved, but one of the accused was convicted of having trout within his possession in the closed season and fined a paltry 40s.\textsuperscript{183} Following this case the \textit{Wairarapa Daily Times} ran an article on poaching and predicted that: ‘So far as the fish are concerned, it has been deemed advisable for the present to restrict the mode of taking them to the sportsmanlike rod and line. When all our rivers have been properly stocked these restrictions will probably be removed.’\textsuperscript{184} This is in keeping with a submission by Mr. Park querying the difference between ‘old world notions’ of poaching and the ethos on which New Zealand was founded: ‘You may make laws, but the moment you attempt to enforce those in New Zealand which are contrary to common right, you will bring a storm about your ears which will compel their repeal.’\textsuperscript{185} Mr. Park continued to ask ‘Why is it that “freshwater fish are not yet within the reach of the poor man?” Does the fact of a poor man eating a trout affect the increase of fish in our streams to a greater extent than it would do if eaten by a rich man?’\textsuperscript{186} Such comments raise extremely interesting points regarding

\begin{footnotesize}
\begin{enumerate}
\item[179] “Regulations for Trout and Perch Fishing, Wellington Acclimatisation District.”, \textit{Wairarapa Daily Times}, 1 October 1888, 2.
\item[180] “Scandalous Poaching.”, \textit{Evening Post}, 26 January 1889, 2.
\item[182] I can’t help but feel Mr. Beard may have slightly overstated his point. Either that or he has a very limited imagination; “R.M. Court.”, \textit{Wairarapa Daily Times}, 10 May 1889, 2.
\item[183] Ibid.
\item[185] “Correspondence.”, \textit{Wairarapa Daily Times}, 8 March 1888, 2.
\item[186] Ibid.
\end{enumerate}
\end{footnotesize}
whether New Zealand was, in fact, as egalitarian in its angling opportunities as it was suggested it should be. What Park is implying is a right, based on an egalitarian colonising philosophy, to take fish without regulation entirely. To many colonists, both in Wellington and throughout the country, this may have been their belief when reading early reports of the intention to introduce trout to New Zealand as it echoes Wakefield’s comments about trout made whilst seeking to elicit immigration. However, the reality is that such an approach is inconsistent with the efforts and expense required to instigate and maintain the trout fishery, unless it were entirely government sponsored.

**Conclusion**

The introduction of trout to the Wellington region took a very different path to both Otago and Canterbury, and before 1885 it had, as will be seen, more in common with the introduction of trout to Auckland. Unlike Canterbury and Otago, where there was a clear ethnic identity attached to the region, Wellington’s ethnic composition was far more diverse. Accordingly, the uniquely English aspects of the introduction of trout to Canterbury, and the uniquely Scottish aspects of the introduction of trout to Otago, are not evident in Wellington. Few inferences can, therefore, be drawn about ethnic factors in the introduction of trout, but it does pose the question whether Wellington and Auckland represent the most quintessentially British regions, insofar as they are a more even combination of the ethnicities comprising Britain without an express identification with a specific ethnicity. In Wellington, more so than other regions, there is evidence of a desire to take the egalitarian colonising ethos to its extreme. This will be addressed in greater detail in Chapter Nine. There is also some evidence of consultation with Māori to protect the trout, although not to the extent that is apparent in Auckland. Further evident in the introduction of trout to Wellington is the fragmented nature of the region, both geographically and socially. Wellington city is isolated from the remainder of the region by ranges, as are the western and eastern portions of the region, hindering both communication with and transportation to parts of the region. This disjointed nature can be seen in the introduction of trout, where no central hub society existed until the WAS and WaAS unified in 1884 and built a

---

substantial operation around the Masterton hatchery. Prior to this, it was necessary for each smaller sub-region to organize its own introductions.

What comes to the fore in Wellington is the sheer significance of environmental factors motivating colonists to introduce trout to their regions. Both Otago and Canterbury have a strong freshwater influence in the immediate vicinity of the main population centre, but the absence of this influence in Wellington city only serves to further highlight its importance. Accordingly, the disproportionate (to population) role the Wairarapa played in the introduction of trout to the region can be explained to some extent by the fact that the Ruamahanga River and its various tributaries dominate the Wairarapa region. This is further affirmed by the eagerness and independence with which both Wanganui and the Manawatu sought to introduce trout. This is not to say that there was not a desire for trout amongst colonists in Wellington city, but that this desire was not at the same level as in areas with immediately proximate bodies of fresh water. Wellington’s environment, unlike that of Auckland, was ultimately very suitable for brown trout, but this was not so immediately apparent to colonists. It also explains the preference expressed in the early years for birds, as the environment surrounding Wellington city would have appeared to colonists ideal for numerous species of British birds. Thus, whilst there are relatively few ethnic inferences that can be elicited from this study of the introduction of trout to Wellington, it provides compelling evidence for the argument that environmental factors were more important than ethnic factors.
Chapter Six: The Introduction of Brown Trout to Auckland

Introduction

Surrounded by ocean and coastline, Auckland sits at the center of the northern half of New Zealand’s North Island. It is geographically dominated by salt water, with Manukau Harbour in the east and the Hauraki Gulf in the west. In between these bodies of water is a hilly strip of land with a number of small creeks that become estuarine and mangrove-lined as they approach the coast. The Waitakere in the northeast and Hunua in the southwest are the closest mountain ranges in proximity to Auckland. Further south, in the Waikato, lies a flat expanse of land with numerous rivers and creeks flowing through bordered by the Kaimai Range to the east. The East Cape is a heavily forested section of rugged country, with a myriad of rivers running east or north, and a number of inland lakes. North of Auckland, the coastline, with harbours and offshore islands, dominates the land whilst inland huge Kauri forests grace the hills. Fresh water is minimal, with a small number of forested inland streams that turn brackish and tidal as they approach the coast. Of the regions covered, Auckland’s environmental dynamic is unique given both the warmer temperatures as a result of its latitute and the relative scarcity of fresh water.

Auckland had long been a sought after-site for Māori as a result of its plentiful kaimoana and fertile soils. Ngāti Whatua and a number of other iwi contested the land for many years, before Ngā Puhi’s chief, Hongi Hika, acquired muskets from the British in 1820 and laid devastating attacks on the region. Auckland’s European settlement was motivated by the decision of William Hobson, the governor of New Zealand, to situate New Zealand’s capital there after the signing of the Treaty of Waitangi, and for 25 years it became the administrative and military capital of New Zealand (see Fig. 25). Amidst growing tensions between Māori and Pākehā, 12,500 British troops were stationed in Auckland in the 1860s to ward off attacks from the...
Waikato. Auckland’s economy was initially based around trade with Māori, but the gold rush in Thames in the late 1860s and intensive harvesting of the local kauri forests saw the focus shift to a more export-oriented economy. This growth fostered further commercial development and many New Zealand companies started off in Auckland in the 1880s. Because it was not an organized settlement, Auckland’s population took on a different dynamic to other regions canvased with a higher proportion of immigrants coming from Australia and Ireland than elsewhere in the country.

The first acclimatisation society in New Zealand

Initial mentions of trout in Auckland took the usual form prevalent across the country: either a misidentification of a local fish or in reference to the attempts to introduce trout to Tasmania. In an 1853 letter to the editor of the New Zealander a correspondent wrote: ‘Knowing that everything tending to make our splendid country

---


6 Ibid.


more attractive will meet with your valuable assistance, I would suggest…that a subscription list be opened to raise a sum sufficient to … to bring Salmon and Trout alive to Auckland.'\textsuperscript{10} A similar desire is evident in early Auckland poetry, where lines like ‘The trout rose up to the river’s lip…’ were commonplace and reflective of a sentimental attachment to Britain and species familiar to it.\textsuperscript{11} This also explains the frequent updates as to the failed attempts to introduce trout to Tasmania. Many correspondents around the country reviled the lack of freshwater table fish, but one Auckland reporter stated that: ‘The visitors were offered a portion of a fresh-water fish, which must have been as large as the best trout caught at home, and quite as fine flavored…’\textsuperscript{12} It is likely this was either a giant kokopu (\textit{Galaxias argenteus}) or a New Zealand grayling. However, this did not prove a popular food source amongst settlers and the desire for trout as food, sport and to sate a sentimental desire remained.

What separates Auckland from other regions canvassed in this study is the speed with which it instituted an acclimatisation society. The first British acclimatisation society was established in 1860, in the wake of the French \textit{Société Zoologique d’Acclimatation}, established in 1854, and yet in November 1861 a meeting was held on Queen Street to establish an Auckland Acclimatisation Society (AAS).\textsuperscript{13} As McDowall acknowledges: ‘it was probably Auckland that was the first [acclimatisation society] formed [in New Zealand].\textsuperscript{14} The intention of the society was to aid the current private introductions of field birds and animals, as well as to ‘see to the introduction of the choice fish of the northern seas, so that we may hope, at no remote period, to find salmon and other valuable fish with which we were familiar at home, among our table luxuries in New Zealand.’\textsuperscript{15} At the November 1861 AAS meeting a committee was formed and a sum of £35 10s was generated through subscriptions: however, much like other early New Zealand acclimatisation societies the AAS soon faded into inactivity.\textsuperscript{16} No official records remain from the earliest iteration of the AAS, but a 1927 letter written by J. W. Williamson, who would later

\textsuperscript{10} “Introduction of Salmon and Trout to Our Rivers.”, \textit{New Zealander}, 20 August 1853.
\textsuperscript{11} “Original Poetry.”, \textit{New Zealander}, 7 December 1853.
\textsuperscript{12} “Visit to Mangatawhiri and the Waikato.”, \textit{New Zealander}, 5 January 1859.
\textsuperscript{15} “Acclimatisation Society.”, \textit{Daily Southern Cross}, 26 November 1861.
\textsuperscript{16} Ibid.
become president of the AAS, contained a summation of these meetings and confirm that little was achieved. During 1862 the AAS undertook some minor importations of birds and animals from Australia, most notably three laughing jackasses. It is apparent, however, that in practical terms the society never got off the ground. At a meeting on 28 December 1862: ‘Mr. Williamson offered 5 acres on the Surrey Hill Estate to be vested in Trustees, solely for the purpose of the Society.’ However, this was to prove the last action of the AAS for some five years until the society was revived in 1867. So limited were the actions of the AAS that Clifton Ashby, in his *Centenary History of the Auckland Acclimatisation Society*, made no mention whatsoever of its existence prior to 1867. By 1866 the editor of the *Daily Southern Cross* confirmed that: ‘The Acclimatisation Society of Auckland has ceased to exist.’

It is important to acknowledge that the AAS began amidst serious tension with Māori in the Waikato, resulting in British troops invading the Waikato on 12 July 1863. Auckland was the colonial military hub for many battles in the New Zealand Wars, and the impact of the wars would have been felt more strongly in Auckland than elsewhere. The AAS itself believed that the flaring up of the New Zealand wars resulted in a social climate that did not favour acclimatisation and that this was the reason for the demise of the previous society. This endorses what was suggested in Otago: that, while colonists undoubtedly wanted trout in New Zealand, this desire was secondary to more fundamental needs like security.

**Reestablishing the AAS**

In June 1866, in response to the belief that there are ‘no fish of any size in the Waikato, or in the other fresh water rivers of New Zealand’ B. C. Beale wrote to the *New Zealand Herald* and queried: ‘Why should not salmon and trout ova be

---

20 “Acclimatisation.”, *Daily Southern Cross*, 16 August 1866, 6.
22 These wars did, however, establish transport networks like the Great South Road that would later come to assist the AAS in the distribution of trout throughout the region.
23 “Acclimatisation Society.”, *New Zealand Herald*, 4 February 1867.
introduced into the fine streams and lakes of this country, as they have been with great success into the rivers of Tasmania.\textsuperscript{24} This provoked a succession of letters on the subject, including one that observed the offer of trout made by Tasmania to the Canterbury Acclimatisation Society, and concluded: ‘I hope Auckland will not permit the younger provinces to take the lead in this matter, but will pluck up and show a little more spirit.’\textsuperscript{25} This indicates a pride in the Auckland province that probably reflects its status as an older, more established region. Throughout 1866 there was a strong increase in the discussion of acclimatisation within Auckland. In January 1867 a meeting of the Auckland Horticultural Society was held in which a proposed amalgamation with the Auckland Acclimatisation Society was discussed.\textsuperscript{26} That same month the \textit{Daily Southern Cross} stated: ‘We hope to see before long an Acclimatisation Society again organized…’\textsuperscript{27} This proved an accurate prediction, as in February 1867 the AAS was reestablished.\textsuperscript{28} The structure of the society would consist of ‘a central committee in Auckland to conduct the affairs of the Society, and the appointment of district committees to act in their own localities.’\textsuperscript{29} In total, from this initial meeting, annual subscriptions ran to £80 and donations to £177.

Newspapers expressed support for the new society, with the \textit{New Zealand Herald} urging readers that: ‘It is the positive duty of every dweller in the province…to support such a society…’\textsuperscript{30} By this stage, the New Zealand wars had largely transitioned to Taranaki, relieving Auckland of the tension of military engagement at its doorstep. Thus, the support and encouragement that the society received on its second attempt was vastly greater. The \textit{New Zealand Herald}, writing immediately after the society was re-formed, believed that there were two fundamental requirements for the society to succeed:

The enlistment of an energetic band who will, each in their respective districts, zealously forward the interests of the society; and an assurance that each district which contributes to

\textsuperscript{24} “Angling in the Waikato.”, \textit{New Zealand Herald}, 5 June 1866.
\textsuperscript{25} “Acclimatisation.”, \textit{Daily Southern Cross}, 16 August 1866.
\textsuperscript{27} “The Daily Southern Cross.”, \textit{Daily Southern Cross}, 7 January 1867.
\textsuperscript{28} “The Daily Southern Cross.”, \textit{Daily Southern Cross}, 4 February 1867.
\textsuperscript{29} “Auckland Acclimatisation Society.”, \textit{Daily Southern Cross}, 4 February 1867.
\textsuperscript{30} Untitled, \textit{New Zealand Herald}, 4 February 1867.
the funds of the society shall receive its fair share, in proportion to its contribution, of the benefits the society is able to obtain… 31

With the introduction of trout becoming increasingly imminent in other regions the Daily Southern Cross also ran an article written by Frank Buckland on the ‘applicability of the fresh waters of New Zealand for the naturalization of salmon and trout…’ 32 The conclusions reached by one of the world experts in salmonid pisciculture were immensely positive and must have served as affirmation for the new AAS.

One of the first acts of the new AAS was to make a request to the Domain Board to have set aside a piece of land within the Domain for the purposes of the society, which was agreed to by the Domain Board (see Fig. 26). 33 At its March 1867 meeting the AAS also requested ‘the Press to assist the society as far as possible, by urging on the notice of country settlers the great and pressing necessity there was for an association of this description.’ 34 By May of that same year, a Howick District Acclimatisation Society had been formed as a result of the ‘good example set her by Auckland…’ 35 The focus of the Howick society was on how to support the AAS:

It was well that the tree [the AAS] should be planted in the town, in the richest soil. But if the sapling is to grow into a noble tree and bear abundant fruit, its roots must strike into and receive nourishment from the country, and then its fruits will be seen there. 36

The district society intended to act as an auxiliary of the AAS, supplementing its work and providing a means to enact acclimatisation in that specific district. This reflects the common structure seen around New Zealand, with a central hub society assisted by smaller satellite societies, and can be contrasted with the fragmented structure seen in Wellington.

The initial focus of the newly reenergised AAS was directed towards English songbirds, with a number of species liberated throughout 1868. 37 This focus can be evinced from the language used in the reports on society meetings: ‘If we are ever to

---

31 Untitled, New Zealand Herald, 2 March 1867.
35 Untitled, Daily Southern Cross, 4 May 1867.
36 “Acclimatisation Society. – Meeting at Howick.”, Daily Southern Cross, 25 April 1867.
37 Untitled, New Zealand Herald, 14 March 1868.
expect success in full introducing birds and other things into the province…’\textsuperscript{38} Such an outlook aligns with the early approach of the Wellington Acclimatisation Society, but can be contrasted with the southern societies who were interested in birds but prioritized fish. As the AAS itself stated:

\begin{quote}
Our remarks have referred more to the acclimatisation of birds than of plants. We believe the first is of most pressing importance, but we trust the Council of the Society will give their best consideration to both branches of their labours, and that they will note the steps taken for the introduction of salmon and trout ova in the Southern Provinces.\textsuperscript{39}
\end{quote}

Definitive proof of the AAS’s preference for birds can be seen in the following comment from its 1871 AGM, the same year trout were introduced to Auckland: ‘The most important work carried out during the past year has, undoubtedly, been the introduction of rooks…’\textsuperscript{40} Again, I contend that this preference for birds, similar to Wellington’s, is a result of the environment immediately proximate to Auckland and the relative lack of freshwater.

\begin{figure}[h]
  \centering
  \includegraphics[width=\textwidth]{Fig_26.png}
  \caption{View from the Auckland Domain, 1866\textsuperscript{41}}
\end{figure}

In August 1868 the \textit{Daily Southern Cross} reprinted an excerpt from the \textit{Argus} which stated that Mr. Stephenson was visiting Tasmania and that he was likely to ‘take with them to their own colony a parcel of tench and trout ova…’\textsuperscript{42} At the November meeting it was noted that ‘…the first step would be to make arrangements for the reception of the ova since the Tasmanian Society would not send ova to any Society unless boxes and ponds were ready for its reception.’\textsuperscript{43} A sub-committee of the AAS visited streams around Auckland and concluded that the streams around Messers Low

\begin{flushright}
\textsuperscript{38} Ibid.
\textsuperscript{39} Untitled, \textit{New Zealand Herald}, 14 March 1868.
\textsuperscript{40} “Acclimatisation Society.”, \textit{New Zealand Herald}, 9 March 1871, 3.
\textsuperscript{42} “The South.”, \textit{Daily Southern Cross}, 13 August 1868.
\textsuperscript{43} “Auckland Acclimatisation Society.”, \textit{New Zealand Herald}, November 5, 1868.
\end{flushright}
The first trout to Auckland

In October 1869 the AAS received communication from ‘Mr. Graves, of Tasmania, offering a supply of trout ova…upon the appointment of a proper person to take charge of them and suitable preparation being made for their reception.’ The AAS decided that: ‘Relying upon an increased measure of public support, the Council has determined to embrace this offer [of trout ova from Tasmania], and to make application to the Provincial Council for a grant in aid of the cost as soon as the object has been fairly accomplished.’ It appeared that the AAS knew of no ‘proper person’ and resolved ‘that the sum of £100 be placed at the disposal of Mr. Graves, and that he send over young fish, tench, trout or any other fresh-water kind.’ In February 1870 a letter was received from Mr. Graves stating that 200 trout would be forwarded by the Bella Mary. These were to be distributed in ‘Lake Takapuna, Low and Motion’s Mill, and the rapid stream, near Drury.’ Reporting on this the New Zealand Herald observed with a palpable sense of relief: ‘We are glad to learn there is a speedy prospect of an arrival of young trout from Tasmania. The importation of fish seems to have been confined to talking and writing so far...’

44 “Acclimatisation.”, Daily Southern Cross, 5 December 1868, 4.
45 “Acclimatisation Society.” Daily Southern Cross, 8 December 1868, 4.
46 Ibid.
48 Untitled, New Zealand Herald, 5 October 1869, 5.
49 “Acclimatisation Society – Annual Meeting.”, Daily Southern Cross, 10 March 1870.
50 “Auckland Acclimatisation Society.”, Daily Southern Cross, 21 December 1869.
51 Given that the word used is ‘trout’ it is likely that Mr. Graves sent young fish rather than fertilized ova; Untitled, New Zealand Herald, 8 February 1870.
52 Ibid.
53 “Auckland Acclimatisation Society.”, New Zealand Herald, 4 April 1870, 4.
April 1870 saw the first steps to prepare facilities for the receipt of trout ova when it was suggested that a corner of the society’s gardens in the Domain was suitable to house rearing boxes. The *Daily Southern Cross* described the facilities:

At the lower end of the garden, near to the western corner, a small branch pipe was laid on to convey the necessary supply of water from the ponds. There are three boxes, each about four feet long, by nine inches broad and eight inches deep, placed end to end, the first one being about four inches higher than the second, and the third about four inches lower. The first box is used only as a filter, the water draining through it into the second, which is filled with fine shingle, and the second flowing into the third similarly filled. At the lower end of the third box is a drain to carry away the used water.

Several months passed with little news, until on 2 August the *Bella Mary* arrived from Hobart Town bringing with it 1,000 brown trout ova in the charge of Captain Copping. This importation represents the first brown trout in the North Island, pre-empting Wellington by over a year (see Fig. 27). The ova were received by the AAS curator, Mr. Abercrombie, and immediately transferred to the gardens by hand to minimize shaking. As a result of insufficient ice a number of the ova perished on the journey. In total 991 ova were placed in the hatching boxes, with some doubt existing as to whether any would hatch at all. The AAS suggested that in future it would endeavor to ‘obtain a supply of ova from the Canterbury Acclimatisation Society, so as to lessen the risk incurred by the longer transit from Tasmania.’

The receipt of trout ova necessitated further work in the gardens and it was anticipated that:

The society will at once commence operations in excavating a lengthened narrow pond for the reception of the young fish as soon as hatched. This pond and the present troughs will be enclosed and covered by a substantial wire netting, to prevent rats or birds from injuring the young colonists.

During this process a ‘Fish Committee’ within the AAS was also established to deal specifically with piscicultural matters. Within two weeks the ova had begun to hatch in the acclimatisation society’s gardens under the care of Mr. Earle. It is a testament to the significance of this event that both the *New Zealand Herald* and *Daily Southern Cross*...
Cross visited the grounds immediately following the hatching. The New Zealand Herald reported that the young fish were:

…little more than a quarter of an inch in length and bore no resemblance whatever to the full grown fish, being more like a tadpole. He was quite transparent, had a head that appeared to consist of very little more than two black eyes, and a tapering tail which he wriggled about with great energy.\(^62\)

![Female trout, (Salmo fario), 1881\(^{63}\)](image)

Visits were not confined to reporters, with the Daily Southern Cross enthusing: ‘a very general interest was shown in the fish by the public, a large number of whom visited the garden.’\(^64\) Of particular interest was the point raised by the Daily Southern Cross about protecting the fish through legislation: ‘We do not say that our fellow colonists would readily resort to such practices here; but it is as well to guard against such destruction in time.’\(^65\) It was similarly resolved that notices should be erected at the Domain to warn people against interfering with the fish in the reservoir.\(^66\)

\(^{62}\) “Trout Ova Hatching.”, New Zealand Herald, 19 August 1870, 2.
\(^{64}\) “Hatching of the Brown Trout.”, Daily Southern Cross, 19 August 1870, 2.
\(^{65}\) Ibid.
\(^{66}\) “Acclimatisation Society.”, Daily Southern Cross, 4 October 1870, 3.
curious that the *Daily Southern Cross* suggested New Zealand colonists would not resort to poaching in light of the high probability that several Auckland immigrants were originally sent to Australia for just that offence. It seems more likely that the *Daily Southern Cross* was actually suggesting there would be no need to poach in New Zealand because of the accessibility of trout fishing in this more egalitarian society.

**Distribution and ongoing importations**

Despite optimism as to the success of the importation only 60 ova hatched from the approximately 1,000 ova imported. Thus it was determined that the trout should all be turned out in one stream to maximize their chances of propagating. Several options were mooted but the trout, ‘to the number of 59, were removed some three weeks since, and placed in Edgecomb’s Creek, Great North Road, by the Fish Committee.’ These proved to be the only trout liberated in Auckland for nearly two years. This makes it slightly hard to understand how, in November 1871, an advertisement for the sale of a farm in Papakura stated that the ‘stream abounds with trout…’ Knowing that one supply of ova would not be sufficient, the AAS instructed the secretary to communicate with both the Canterbury and Otago societies, as well as with Hobart Town, as to the availability of ova for the following season. In July 1871 both the Canterbury Acclimatisation Society and Tasmania offered to supply the AAS with a quantity of ova. As a result of a misconception regarding the date of departure, the Tasmanian shipment was not made despite preparations having been made at both ends. This disappointed a number of colonists who had made specific requests for trout for their properties and 500 fish were ordered from Canterbury. However, when it came time to receive the ova from Canterbury it was apparent that the Canterbury Acclimatisation Society’s hatching had not been as successful as expected.

---

68 “Importation of Trout.”, *New Zealand Herald*, 8 October 1870, 2.
69 It is clear that a little creative licence was taken here in order to elicit a sale; “Auction Sales.”, *Auckland Star*, 16 November 1871, 3.
70 “Acclimatisation Society.”, *Daily Southern Cross*, 4 October 1870, 3.
71 “Acclimatisation Society.”, *New Zealand Herald*, 4 July 1871, 3.
73 Ibid.
and they could not offer the quantity requested, nor at the price previously suggested.\textsuperscript{74}

Eventually a trade was brokered, whereby Canterbury would send 50 trout to Auckland in exchange for ten pairs of Australian quail. In December 101 trout were received from Canterbury and out of the discussion surrounding their distribution the AAS decided to allot £25 to the construction of a breeding pond in the Domain.\textsuperscript{75} This was the first step in what would prove a doomed attempt to breed brown trout in Auckland. The pond was completed in January 1872 and the fish were immediately released into it.\textsuperscript{76} The intention of the AAS was to breed and sell trout so that: ‘…gentlemen not members of the Acclimatisation Society would subscribe amongst themselves to raise funds to procure fish to stock their own streams and ponds.’\textsuperscript{77} This is in keeping with the AAS’s intentions to act as a hub society for the wider region and to offset its own costs through the sale of trout.

In March a further 36 fish were brought up from Canterbury and liberated in the Waitoa river by Auckland businessman and land developer Josiah Clifton Firth at his own expense, the first liberation since Edgecombe’s Creek nearly two years prior.\textsuperscript{78} No update as to the success of the Edgecombe’s Creek introduction had been provided, and it was uncertain as to the fate of those fish. In May 1872 a reporter from the New Zealand Herald travelled to Edgecombe’s Creek whereupon he could see no trout in residence.\textsuperscript{79} Finally, in December 1872, the Auckland Star reported that: ‘We are glad to observe that trout still exist in Edgecombe’s creek...’\textsuperscript{80} The drama as to whether there were in fact trout in Edgecombe’s creek appeared to rear its head.

\textsuperscript{74}“Acclimatisation Society.”, New Zealand Herald, 7 November 1871, 3.
\textsuperscript{75}“Acclimatisation Society.”, New Zealand Herald, 12 December 1871, 3.
\textsuperscript{76}“Acclimatisation Society.”, New Zealand Herald, 10 January 1872, 3.
\textsuperscript{77}We see this in the majority of locations around the country, whereby the society attempts to create a ‘user pays’ system for stocking trout throughout the country. I believe this speaks to the fact that these organisations, whilst run with an altruistic bent, were not a government body and were required to be economically independent; Ibid.
\textsuperscript{78}Firth appears to have been heavily influenced by the writings of George Perkins Marsh, as he spoke publicly of the dangers of deforestation and yet was a huge supporter of acclimatising fish such as trout and salmon; D. B. Waterson, “Firth, Josiah Clifton”, Dictionary of New Zealand Biography, [Accessed 8 November 2017: https://teara.govt.nz/en/biographies/1f7/firth-josiah-clifton]; Untitled, New Zealand Herald, 12 March 1872; “The Acclimatisation Society.”, Daily Southern Cross March 14 1872.
\textsuperscript{79}Untitled, New Zealand Herald, 15 May 1872.
\textsuperscript{80}Untitled, Auckland Star, 16 December 1872, 2.
annually for, in October 1873, the *New Zealand Herald* bemoaned that all the trout had perished, as none had been witnessed for an entire year.\(^{81}\)

In September 1872 a shipment of 1,000 ova was made from Tasmania again on the *Bella Mary*, with only a few ova dead upon arrival.\(^{82}\) This season the AAS had one substantial advantage as compared to previous years: ‘Mr. Gledhill’s ice machine is now capable of providing a supply of ice, so that the temperature of the water in the hatching-boxes can be regulated as desired.'\(^{83}\) This appears to have had a significant bearing on the success of the hatching, as a far higher number than previously hatched out. As a result of this successful hatching of ova, the *New Zealand Herald* ran an advert in October announcing that: ‘Trout can be obtained at the Acclimatisation Gardens at one guinea per dozen.’\(^{84}\) Local newspapers such as the *Thames Advertiser*, seeking to elicit interest in purchasing trout for the district, ran complimentary accounts of settlers who had purchased a quantity of trout for the local streams.\(^{85}\)

In 1872 the Waikato Agricultural Association decided to apply the entirety of its surplus funds to the introduction of insectivorous birds and fish, with ‘particular attention being devoted to the introduction of trout in the whole of the suitable streams throughout the Waikato.’\(^{86}\) As the *Waikato Times* stated: ‘We think that the money could not have been devoted to a better purpose, as even looking at the matter from a mere pecuniary point of view, the stocking of our rivers with fish could not fail materially to add to the wealth of the district.’\(^{87}\) No strict record was kept of the fish sold to the public by the AAS in 1872, but it is known that, amongst other sites, the trout were placed in Western Springs, the Upper Thames, the Ohinemuri and Hay’s Creek.\(^{88}\) Later, in 1874, a desire to instigate a Waikato branch of the AAS was reported in the *Waikato Times*. Whilst not solely focused on trout, and in fact having a heavy horticultural influence, the *New Zealand Herald* stated: ‘the followers of Isaak Walton must be sufficiently strong here to afford great support to a society which will

\(^{81}\) Untitled, *New Zealand Herald*, 28 October 1873.

\(^{82}\) Untitled, *Daily Southern Cross*, 11 September 1872.

\(^{83}\) Ibid.

\(^{84}\) Untitled, *New Zealand Herald*, 1 October 1872.

\(^{85}\) Untitled, *New Zealand Herald*, 5 October 1872.


\(^{87}\) Ibid.

\(^{88}\) “Acclimatisation Society.”, *New Zealand Herald*, 16 March 1880, 3.
undertake the introduction of finny subjects…” To aid this venture, Firth brought 350 salmon trout from the AAS to be distributed throughout the Waikato in the Waitikure, Puniu, Waitoa, Whangawhara and Karapero Creeks.

The AAS had, by this stage, found a functional means of receiving the trout ova, hatching them and rearing them in the ponds at the Domain until they were purchased by local settlers or distributed by the AAS itself. In September 1873 a further 600 ova were received by the _Bella Mary_ from Tasmania, this time without a single trans-Tasman mortality. The biggest disruption came when a number of boys were caught fishing for eels in the Domain and inadvertently damaged the supply pipe to the AAS fish house. The boys offered to contribute to the repair and the matter was dropped. As a result of the disruption, however, there was considerable loss of young fish. Vindication for the efforts of the AAS came in the form of a report in the _Thames Adviser_ that the Upper Thames was well stocked with trout, and that local Māori had witnessed them increasing in size over the past three years. On covering this news, the _Auckland Star_ suggested that it ‘should encourage others to do all they can to acclimatise British fish in New Zealand waters.’ This resulted in significant attention, as for the first time the success of the trout experiment was visible in Auckland.

In August 1874 the Otago Acclimatisation Society sent approximately 1,600 trout ova to Auckland. A large number of these were liberated into a creek on the property of Mr. Howard, deemed an ideal breeding stream. This number was supplemented further when the Wellington Acclimatisation Society declined the Canterbury Acclimatisation Society’s offer of 2,000 ova and they were forwarded on to Auckland. This increase in available ova saw more substantial introductions to

---

89 Untitled, _New Zealand Herald_, 9 October 1874.
90 Salmon trout was a name given to a sea-going form of brown trout in the UK, however, it is genetically the same fish as a brown trout; “A Sample of American Interviewing.”, _Daily Southern Cross_, 12 October 1874.
91 Untitled, _Daily Southern Cross_, 8 September 1873.
92 “Acclimatisation Society.”, _New Zealand Herald_, 4 November 1873.
93 Untitled, _New Zealand Herald_, December 1, 1873.
94 Untitled, _Auckland Star_, December 1, 1873.
95 “The Armed Constabulary.”, _Daily Southern Cross_, 17 August 1874.
97 Untitled, _Auckland Star_, 1 September 1874.
waterways throughout wider Auckland. Accordingly, it was reported at the September monthly meeting of the AAS:

The trout ova had been distributed as followed: 300 to the Bay of Islands, through Mr. Earl, who placed them in the Waitangi river; 397, in addition to the large number previously sent, had been placed in the stream running through Mr. Howard’s property at the Whau; 207 had been seen to Riverhead in charge of Mr. Lamb.\(^98\)

This meeting also represented the first time an important issue in the introduction of trout to Auckland was raised: the climate. Mr. Palmer noted: ‘…the warmth of the climate further North, was not suitable. The warmth of the temperature of the water was a considerable obstacle to the success of the acclimatisation of these favourite fish. The streams in the Waikato and south of Auckland were much more suitable.’\(^99\)

Temperature would prove to be the telling environmental factor in the introduction of trout to Auckland, preventing the AAS from breeding trout as they wished to.

Whilst discussing the best options for distributing the 1875 allotment of ova from Otago and Tasmania, it was suggested that the majority of these ova should be deposited in a stream near to Auckland ‘so that the society should not in the future have to depend upon the South for supplies of breeding fish.’\(^100\) The suggestion was to establish a robust population of trout in a natural stream and to capture these trout in spawning season and strip the ova and milt from the fish. Unfortunately, the young trout hatched of the Otago ova were struck with a blight that severely reduced their numbers. All surviving fish were liberated in the Papakura River.\(^101\) This news was met with considerable disappointment in the further afield regions of the Auckland province, where no trout were distributed that year. One disgruntled commentator, who identified himself as ‘a Provincialist’ went so far as to say that ‘the Society is so centralizing in its operations that it should be removed to Wellington.’\(^102\) Relative to the southern societies, and as a result of the low numbers of trout ova the AAS were dealing with and its inability to breed trout, it is fair to say that the AAS did not manage to effect as widespread a distribution of trout throughout its province as had been desired. Finally, in September 1876, the idea of constructing a fish house for trout was considered by the AAS and a tender was eventually accepted at £25 15s.\(^103\)

---

\(^98\) “Acclimatisation Society.”, \textit{New Zealand Herald}, 15 September 1874, 3.
\(^99\) ibid.
\(^100\) “Acclimatisation Society.”, \textit{New Zealand Herald}, 5 October 1875, 3.
\(^102\) “Acclimatising in the Province of Auckland.”, \textit{New Zealand Herald}, 13 March 1876.
\(^103\) “Acclimatisation Society.”, \textit{New Zealand Herald}, 5 September 1876.
Further to this, a breeding pond to hold trout in a long-term capacity was suggested and two locations were mooted. The fish house was built, but it is uncertain whether the pond was constructed, as the following season the AAS once again communicated with the Canterbury and Otago societies and, for the first time, Andrew Johnson to secure a supply of brown trout ova.\textsuperscript{104} Such was the lack of activity over this year that the 1877 AAS annual report makes no mention whatsoever of the introduction of trout, focusing instead largely on the importation of salmon from California.\textsuperscript{105}

Along with brown trout and Californian Salmon (primarily \textit{Oncorhynchus tshwytschya}), the AAS also received a supply of 5,000 ‘brook trout’ ova from California, of which some 400 hatched.\textsuperscript{106} The fish were procured by Mr. Thomas Russell at his own expense, and transported by Mr. Hugh Craig to Auckland.\textsuperscript{107} Firth then liberated 200 of these trout into the Karapiro Stream.\textsuperscript{108} There is a very real likelihood that these fish, alternately called ‘brook trout’ and ‘Californian trout’ were not in fact brook trout but misidentified rainbow trout (\textit{Onycoryhnchus mykiss}) (see Fig. 28). This confusion was not limited to New Zealand, with one San Francisco newspaper stating: ‘Salmo irideus [now \textit{O. mykiss}]. This is called Californian Brook Trout, or the Rainbow Trout.’\textsuperscript{109} McDowall referenced this introduction, stating that: ‘Apparently a consignment of rainbows was brought here in 1877…though it is not clear what happened to this fish, and there is no evidence to suggest where, if anywhere, they were released.’\textsuperscript{110} As there is no other evidence of an introduction of American trout in 1877, it is very likely this was the introduction McDowall referred to. This argument is strengthened by the fact that there was significant misidentification of rainbows and brook trout in the subsequent 1883 introduction of rainbow trout: ‘In the pioneering days this early consignment was described by the Society as brook char, and it was some years before the Society secretary, botanist Thomas Cheeseman, realized they actually had rainbows.’\textsuperscript{111} The simple fact that the

\textsuperscript{104} “Acclimatisation Society.”, \textit{New Zealand Herald}, 8 May 1877.  
\textsuperscript{105} Auckland Acclimatisation Society Annual Report 1877, SF87 ANN, Auckland Museum, Auckland, New Zealand.  
\textsuperscript{107} Ibid.  
\textsuperscript{108} Untitled, \textit{Auckland Star}, 26 July 1877.  
\textsuperscript{109} “Fish.”, \textit{Marin County Journal}, 18 August 1877, 2.  
\textsuperscript{110} McDowall, \textit{Gamekeepers for the Nation}, 256.  
\textsuperscript{111} Ibid.
AAS labelled this fish as brook trout does nothing to confirm its species. That the ova were called ‘Californian trout’ also adds weight to the theory, as rainbow trout are native to drainages of the West Coast of the United States whilst brook trout are native to the East Coast; however, it is known that both brook and rainbow trout were distributed from California at this time. An examination of Californian newspapers did not reveal the answer to this mystery, but it is likely that with substantially more research into the outgoing records of Californian hatcheries it would be possible to confirm this. If it were proven, it would mean that rainbow trout were introduced to New Zealand some six years earlier than previously believed.\(^\text{112}\)

![Image](http://www.aucklandcity.govt.nz/dbtw-wpd/HeritageImages/images/photos/AWNF1928/awns_19280322_p049_i006_x.jpg)

**Fig. 28: The progeny of the Auckland rainbow trout, 1928\(^\text{113}\)**

\(^{112}\) If this is proven it will be a real victory for primary research, as but for crawling through tens of thousands of articles this small piece of the puzzle may never have been uncovered.

Trout to regional centres and ongoing challenges

The late 1870s saw relatively few introductions made, as the AAS remained reliant on other societies for their supply. At its 1880 annual meeting, the AAS recapped the introductions of the previous decade. Whilst its records do not extend to exact numbers of trout introduced, it is apparent that well over 5,000 trout were introduced to a minimum of 20 locations throughout Auckland.\textsuperscript{114} However, despite the efforts and expenditure, it was also apparent that brown trout were not nearly so prevalent in the streams around Auckland as there are negligible reports of sightings such as are found in other provinces. Although it is now obvious that environmental conditions, and specifically water temperature, played a significant role in limiting the success of brown trout in Auckland, at the time the AAS weathered much of the blame. Comments such as ‘it was a pity some greater energy had not been displayed in the matter’ were commonly directed at the AAS throughout the 1870s.\textsuperscript{115} In June 1880, during an AAS discussion as to the best approach to introducing trout, Mr. Palmer stated: ‘It may be that our northern rivers are not so favourable to the culture of this fish as those of the South.’\textsuperscript{116} This likelihood caused some consternation when Mr. Earl, of the Bay of Islands, requested between 3,000 and 6,000 of the Otago Acclimatisation Society shipment. As Mr. Palmer stated: ‘Mr. Earl had himself suggested, as the great difficulty of acclimatizing this fish, the warm temperature of the northern part of this island. He now proposed to go very far north.’\textsuperscript{117} However, Mr. Barstow suggested that there were fine trout streams north of Auckland, reminiscent of those in the south of France, and Mr. Earl’s request was granted.\textsuperscript{118}

On top of the Otago shipment, expected to total 11,000, the AAS also received an allotment of 6,000 ova from the Canterbury Acclimatisation Society, of which 5500 hatched out.\textsuperscript{119} Mr. Earl’s allotment of trout, totaling 5,000, was sent on the Tararua in late August packed in ice.\textsuperscript{120} These fish were to be distributed in the streams flowing into both the Hokianga harbour and Lake Omapere.\textsuperscript{121} Because of the large

\textsuperscript{114} Auckland Acclimatisation Society Annual Report 1880, SF87 ANN, Auckland Museum, Auckland, New Zealand, 8.
\textsuperscript{115} “Acclimatisation Society.,” \textit{New Zealand Herald}, 8 June 1880, 3.
\textsuperscript{116} Ibid.
\textsuperscript{117} “Acclimatisation Society.,” \textit{New Zealand Herald}, 3 August 1880, 6.
\textsuperscript{118} Ibid.
\textsuperscript{119} Untitled, \textit{New Zealand Herald}, 28 August 1880.
\textsuperscript{120} Untitled, \textit{New Zealand Herald}, 2 September 1880.
\textsuperscript{121} Ibid.
volume of ova received, the AAS still had a number at their disposal and determined to distribute them as follows: 1,000 in the Western Springs reservoir, 2,500 in the Mangatawhiri Stream and 2,500 in Henderson’s Mill stream.\textsuperscript{122} 1880, therefore, represents a significant increase in the number of brown trout ova received by the AAS.

During 1881 the idea of moving the fish-house from the Domain to a site on a suitable stream was debated, and eventually in June £100 was voted for introducing ova and moving the fish-hatching apparatus to a site on Henderson’s Creek.\textsuperscript{123} The motivation for this move was a combination of financial and functional factors, as the AAS was expending significant amounts of money importing trout only to have its investment threatened by the lack of consistent water in the Domain.\textsuperscript{124} This is further testament to the comparative lack of freshwater in the Auckland region, as this issue did not occur elsewhere in the country. In mid-1881 the AAS constructed facilities at Henderson’s Creek and in September it received a shipment of 15,000 ova from the Otago Acclimatisation Society, which were conveyed to the new site.\textsuperscript{125} Here it was proposed to excavate several more ponds:

so that at least a number of the young fish may be kept in confinement, and thus be under constant observation. Such a plan would also afford an easy way of obtaining in the future supplies of ova without importing it from neighbouring districts at considerable cost to the society.\textsuperscript{126}

The hatching of these trout was atypically successful, likely as a result of the fact that the water at the site was six degrees colder than in the Domain ponds.\textsuperscript{127} As part of a new approach of concentrating fish releases in a small number of waterways, the entirety of the fish at the Henderson’s Creek site were released into Henderson’s Creek and the Waitakere River.\textsuperscript{128}

By mid-1882, the AAS adopted a new strategy as a result of the demand for trout in country regions: ‘The council decided that when the settlers in any suitable locality would erect a proper hatching house, and provide the necessary superintendence, an

\textsuperscript{122} “Acclimatisation Society.”, \textit{Auckland Star}, 6 September 1880, 2.
\textsuperscript{123} Untitled, \textit{New Zealand Herald}, 15 June 1881.
\textsuperscript{124} Auckland Acclimatisation Society Annual Report 1882, SF87 ANN, Auckland Museum, Auckland, New Zealand, 5.
\textsuperscript{125} Untitled, \textit{New Zealand Herald}, 3 September 1881.
\textsuperscript{126} Ibid.
\textsuperscript{127} Untitled, \textit{New Zealand Herald}, 29 September 1881.
\textsuperscript{128} “Acclimatisation Society.”, \textit{New Zealand Herald}, 9 March 1882.
effort would be made to forward ova and hatching boxes.\textsuperscript{129} Two places, Paeroa and Raglan, established hatching houses and accordingly, when the AAS received its consignment of 12,000 ova from the Otago Acclimatisation Society, these sites were each sent 3,000 fish.\textsuperscript{130} The remainder of the fish were placed in the Henderson Creek facility. There was no charge for the supply of ova to the country as ‘the council of the Acclimatisation Society [were] anxious that the settlers in country districts should take an interest in stocking the rivers and creeks in their neighbourhood with brown trout.’\textsuperscript{131} Ultimately 13 people around the Auckland region, many representing local organizations, erected hatching boxes and applied to the AAS for ova. The AAS ‘agreed to limit the number to be supplied to 250 for each hatching box, the total number to each applicant to be limited to 1,000.’\textsuperscript{132} To satisfy the high demand 15,000 ova were ordered that season from Otago.\textsuperscript{133}

The early 1880s also saw a sustained effort made by the AAS to introduce rainbow trout to New Zealand. Batches arriving in 1882 and early 1883 were unsuccessful, with all the fish arriving dead at Auckland.\textsuperscript{134} However, in April 1883, a batch of 5,000 ‘Californian trout’ were received by the AAS, and distributed in waterways around the city with a number of fish retained from which to establish a breeding stock. As stated earlier, it was a number of years before the true identity of the fish was known but this was still the first confirmed introduction and distribution of rainbow trout in New Zealand (subject to verification of the 1877 introduction) and represents the most significant contribution of the AAS in the introduction of trout to New Zealand.

The difficulties the AAS had in establishing brown trout in the region were evident in the variety of methods it attempted. Mr Barstow suggested that ‘he would sooner turn out ten well-grown trout than 10,000 newly hatched members of that family.’\textsuperscript{135} It was agreed that ‘a large fish pond will be constructed in the Domain, and here the

\textsuperscript{129}“Acclimatisation Society.”, \textit{New Zealand Herald}, 15 March 1883.
\textsuperscript{130}“Acclimatisation Society.”, \textit{New Zealand Herald}, 6 September 1882.
\textsuperscript{131}Untitled, \textit{New Zealand Herald}, 6 September 1882.
\textsuperscript{132}“Acclimatisation Society.”, \textit{New Zealand Herald}, 8 August 1883, 6.
\textsuperscript{133}Ibid.
\textsuperscript{134}McDowall, \textit{Gamekeepers for the Nation}, 256.
\textsuperscript{135}Untitled, \textit{Auckland Star}, 14 February 1883.
important trout will be kept until they have reached the adult state. This was the first season that the AAS had retained trout exclusively for breeding purposes, with some 100 trout being held in a pond at Waitakere from the 1882 hatching so that ‘in the course of two years time they would be breeding, from which a regular supply could be obtained.’ A motion was then passed to establish breeding ponds at the Waitakere site. Auckland, however, was not as suitable for rearing trout in ponds as further south as a result of the warmer temperature, and a number of mortalities were reported in the trout retained at the Domain pond. The fish that remained reached weights of up to 5lbs, and it was hoped that the AAS would be able to attain a supply of ova from them in the 1885 breeding season. The renewed efforts of the AAS from 1881 onwards were successful. In its 1885 annual report the society recorded:

The council have pleasure in stating that in all probability the safe establishment in our streams of both brown trout and American brook trout is only a question of time. Young trout are frequently seen in the Waitakerei River and Henderson’s stream, in which it will be remembered that large numbers of young fry have been placed, and in both localities are apparently doing well.

Clifton Ashby, author of the centenary history of the AAS, noted: ‘Any lingering doubts about their [brown trout’s] establishment in streams stocked in the preceding 17 years were eliminated in 1886 when reports reached the society that some waters were being fished illegally…and successfully.’ This is roughly in keeping with the first reports of trout poaching in Wellington, suggesting that the two regions were operating on a similar time frame to this point.

In mid-1885 the rainbow trout in the Domain ponds bred and produced 1,500 ova. Whilst not brown trout, they do represent the first trout successfully bred in the Auckland province and the first rainbow trout to be bred in New Zealand. This meant that the AAS were in possession of the sole supply of rainbow trout fry in New Zealand. Some 20,000 to 30,000 ova were produced in 1887 by the female rainbow trout, though the males were not so prolific in fertilizing the ova. Accordingly, in early 1887, the Wellington Acclimatisation Society wrote to the AAS requesting a

---

136 Ibid.
137 “Acclimatisation Society.”, New Zealand Herald, 3 October 1883.
138 “Acclimatisation Society.”, New Zealand Herald, 4 February 1885.
139 “Acclimatisation Society.”, Auckland Star, 11 March 1885.
142 “Acclimatisation Society.”, New Zealand Herald, 15 July 1885.
143 “Auckland Acclimatisation Society.”, New Zealand Herald, 10 March 1887.
supply of rainbow trout in exchange for Loch Leven trout or perch. The AAS replied: ‘The Society would either afford fry at a cooler season of the year, or a supply of eggs when the fish spawned next season.’ In mid-1887, the AAS received a consignment from the Wellington Acclimatisation Society of 40 perch, 50 Rhine and 200 Loch Leven trout in exchange for the rainbows. The brown trout, though more mature than the rainbows, were not successfully bred by the AAS in the period of this study and the AAS suspected this to be a result of an insufficient supply of water. Despite laying a more substantial pipe to feed the ponds, in March 1887 as a result of excessive heat in the summer months all of the brown trout retained in the Domain ponds perished. Supplementary water was available from the City Council, but despite frequent requests from the AAS for a free supply of water given the public nature of their endeavours: ‘the terms asked were so high that the Society could not accept them.’ This serves to illustrate both the detachment between government and the acclimatisation societies, as well as further affirming the environmental challenges facing trout in Auckland. Both the rainbow and brook trout proved more resilient to the hot weather, and the AAS expected to be able to distribute 1000 young rainbow trout at the end of May.

The ongoing inability of the AAS to supply trout in greater numbers meant that smaller centres around the Auckland region were forced to deal directly with the southern societies, and later Wellington, rather than being able to rely on Auckland as a central hub society. Whilst the AAS did provide a structural and administrative hub for the acclimatisation movement in Auckland, because of environmental factors beyond its control it was unable to perform the functions of other societies and breed and distribute brown trout throughout the region. Up until the mid-1880s Auckland and Wellington had been on a roughly similar timeline, despite Auckland being a more organized and established society, and yet the ease with which Wellington surged past Auckland once breeding facilities were constructed is a testament to the unsuitability of the Auckland environment for breeding brown trout.

144 “Acclimatisation Society.”, New Zealand Herald, 2 February 1887.
145 “Acclimatisation Society.”, New Zealand Herald, 8 June 1887.
146 Ibid.
147 Untitled, Auckland Star, 24 March 1887.
149 “Acclimatisation Society.”, New Zealand Herald, 6 April 1887, 5.
The one desirable and unique possession of the AAS was the rainbow trout ova, of which 1,500 were sent to Johnson in Christchurch. This was the first introduction of rainbow trout to the South Island, and Johnson used these fish to cultivate a breeding stock and supply the remainder of the South Island with rainbow trout. As a result of rainbow trout being slightly more tolerant of higher temperatures, they could be effectively bred in Auckland, whereas brown trout’s need for lower water temperatures did not mesh with the technology of the time. It is believed that rainbow trout have just a one degree higher threshold of temperature tolerance, which shows how marginal the Auckland environment is for breeding brown trout. Confirming this, D. Scott and M. Poynter note that: ‘The northern limit of naturally reproducing salmonids [brown trout, but not rainbows] is regarded as about 37 degrees S and the restricted distribution of trout north of this latitude is considered to be due to high temperature at some season.’ Auckland lies exactly at this latitude and is therefore right at the northern limit for brown trout breeding. Accordingly, the failure of the brown trout breeding experiment in Auckland should be attributed almost entirely to environmental factors.

Poaching, protection and fishing

Both the protection of, and fishing for, trout took on a different dynamic in Auckland, with less enthusiasm expressed by the public generally. Rumours of abundant trout in the Upper Thames in 1874 motivated the first real suggestion of fishing for trout in Auckland: ‘It would be very satisfactory if some one here accustomed in days of old to handle a rod beside the trouting streams in the home country would go to the Upper Thames and actually produce a fish or two before our eyes.’ The New Zealand Herald also made mention that one trout had in fact been shot as it leapt free from the water, hardly the most sporting of beginnings for trout fishing in Auckland. There was evidently some public interest in angling as the opening of the Otago trout fishing season in December 1874 was reported on in some detail. At the June 1876 meeting of the AAS it was observed: ‘Dunedin, Nelson and Christchurch have trout fishing,
and Auckland has none.\(^\text{154}\) It was suggested that the AAS should devote its funds that year primarily to the introduction of fish so as to ensure that brown trout and salmon were a permanent fixture of the waterways in quantities sufficient to open them up to angling. By 1877, Napier and Wellington had both instituted angling seasons too, and questions were being asked of the AAS as to why Auckland was lagging so far behind.\(^\text{155}\)

In the late 1870s a plan was sent to the AAS by government for their consideration, which proposed that no person shall fish for salmon or salmon trout nor have them in their possession.\(^\text{156}\) This appeared to be largely anticipatory, as neither species was established and it is unclear why brown trout were not also protected. The penalty for breach was set at a sum not exceeding £100. These regulations were gazetted in September 1877 and provided strict guidelines preventing both direct angling as well as protecting against accidental by catch through regulating a minimum net size.\(^\text{157}\)

The publication of this regulation resulted in a query to the *Auckland Star* as to whether there was any restriction on fly fishing for brown trout in Auckland.\(^\text{158}\) The *Star* replied that there was no law preventing this, except in the rivers proclaimed by the Governor under the *Salmon and Trout Act 1867*. No regulations had explicitly been issued to prevent angling for trout in Auckland, and yet were it frequently undertaken it is likely that successful outings would have been reported in the newspapers.\(^\text{159}\) For a number of years the legal status of brown trout in Auckland was in limbo, and the lack of angling came more from scarcity than regulations. At the 1880 annual meeting the AAS President, Mr. Barstow, requested that someone in the district send the AAS a couple of trout they had caught in order to identify them.\(^\text{160}\) In so doing, he endorsed fishing for trout in Auckland and implicitly suggested that it was not necessary to hold a licence to do so. This matter was eventually put to bed at the end of March 1880, when a proclamation in the *Gazette* stated that: ‘the use of rods, etc, for taking young salmon, salmon fry or spawn, or young trout, trout fry or

\(^{154}\) “Acclimatisation Society.”, *Daily Southern Cross*, 20 June 1876, 3.

\(^{155}\) “Bay of Islands Coal Company (Limited).”, *New Zealand Herald*, 6 February 1877.

\(^{156}\) “Salmon and Trout Protection.”, *New Zealand Herald*, 15 January 1877, 4.

\(^{157}\) “Salmon Fishing Regulations.”, *New Zealand Herald*, 24 September 1877, 2.

\(^{158}\) “Correspondence.”, *Auckland Star*, 1 December 1877.

\(^{159}\) In contrast to the approach taken by the southern societies.

\(^{160}\) “Acclimatisation Society.”, *New Zealand Herald*, 16 March 1880, 3.
spawn, in any river or stream is prohibited under a penalty of £100.'\textsuperscript{161} Despite this, no prosecutions were made under the \textit{Salmon and Trout Act 1867} in the Auckland region and it remains uncertain what the practical implications of this proclamation were. In numerous instances throughout the 1880s reports of Māori shooting fish were published in the newspapers, yet no investigations ensued.\textsuperscript{162} This can be contrasted strongly with the litigious attitude of the Otago Acclimatisation Society, whereby any possible infringement was prosecuted.\textsuperscript{163}

The first suggestion that the AAS issue a fishing licence was made in 1879; however, this was not motivated by sufficient fish stocks but rather to recoup on the lower than usual uptake of game licences that year.\textsuperscript{164} In September 1880, the Canterbury Acclimatisation Society secretary, Samuel Farr, wrote to the AAS proposing the notion of a reciprocal fishing licence arrangement, whereby those holding Canterbury licences could fish in Auckland and vice versa.\textsuperscript{165} Whilst the AAS was amenable, it was not yet issuing licences so was unable to agree to the proposal. The \textit{New Zealand Herald} commented on the lack of angling: ‘In every year since then [1870], except 1876, fish have been introduced or ova sent out. And yet nobody has caught a trout!’\textsuperscript{166} In response to this article, Arthur Bull wrote an extensive letter to the editor outlining both the suitability of streams in the Auckland province for trout fishing as well as the desirability and public interest in the fishing itself.\textsuperscript{167} To this end, he later advocated: ‘a chain on each side [of the river] should be reserved, pointing out the boon which it would be to have free access to fishing streams.’\textsuperscript{168} This request was heard by the Crown Lands Board, and referred on to the Chief Surveyor to report upon.\textsuperscript{169} Ultimately, the Chief Surveyor recommended ‘a reservation of 25 links along the banks of the Pokaiwhenua and other streams, tributaries of the Waikato, thereby securing free future access to the public for fishing, botanizing, and other purposes.’\textsuperscript{170} This raises a valuable point about trout fishing in Britain: people were

\begin{flushleft}
\textsuperscript{161} Untitled, \textit{Auckland Star}, March 30, 1880, 2.  \\
\textsuperscript{162} “Acclimatisation Society.”, \textit{New Zealand Herald}, 8 June 1880, 3.  \\
\textsuperscript{163} Untitled, \textit{Otago Daily Times}, 2 October 1880, 3.  \\
\textsuperscript{164} “Acclimatisation Society.”, \textit{New Zealand Herald}, 8 July 1879, 3.  \\
\textsuperscript{165} “Acclimatisation Society.”, \textit{Auckland Star}, 6 September 1880.  \\
\textsuperscript{166} Untitled, \textit{New Zealand Herald}, 13 October 1880.  \\
\textsuperscript{167} “Trout in the Province of Auckland.”, \textit{New Zealand Herald}, 16 October 1880.  \\
\textsuperscript{168} “Crown Lands Board.”, \textit{New Zealand Herald}, 10 June 1881.  \\
\textsuperscript{169} “Crown Lands Board.”, \textit{New Zealand Herald}, 19 August 1881, 3.  \\
\textsuperscript{170} “Rights of Footway.”, \textit{New Zealand Herald}, 8 September 1881, 3.  
\end{flushleft}
prevented from fishing for trout, not so much because the fish were privately owned but because the land giving access to trout was. Instances such as the above, and the permission given by the Domain Board in Christchurch to fish a portion of the Avon, are early examples of public recreational spaces that speak to the desire within early New Zealand society to maintain accessibility to both trout fishing and the freshwater resource generally.

By mid-1883 the lack of available fishing was again being queried by the New Zealand Herald, and specifically the fact that the AAS was pouring funds into the introduction of brown trout whilst recouping none of it through licence sales.171 The few instances that were reported of angling indiscretions typically centred around young boys fishing in the streams in which trout had been released, yet none of these led to any action by the AAS or local government.172 January 1885 saw the first rangers, 17 local constables, gazetted under the Salmon and Trout Act, yet there is little evidence of them taking any action.173 Predictions of the likelihood of legal angling began to increase, with the AAS stating in its 1886 annual report: ‘Probably no very long time will elapse before both these streams may be opened for a limited amount of fishing.’174 However, the first pejorative report of fishing in the Auckland region related to the illegal fishing for trout, both with spear and fishing rod, by kauri gum diggers working in the Waitakere ranges.175 This matter was referred on to police, and settlers were encouraged to do their part in protecting the trout. Following this the AAS advertised the regulations regarding the protection of trout in the Auckland region, and in particular emphasised the fact that transgressions left the offender liable for a penalty of up to £100.176 One positive must be taken from the illegal fishing that was transpiring in Waitakere: you can’t catch what isn’t there. That the offenders were successful in their pursuit confirms trout were now resident in these streams, and in light of this, the AAS suggested that ‘those streams might soon be opened for a limited amount of fishing.’177

171 “Trout and Salmon Acclimatisation in Auckland.”, New Zealand Herald, 14 June 1883.
172 “Waikato District News.”, New Zealand Herald, 28 November 1884.
173 “News in Brief.”, New Zealand Herald, 9 January 1885.
175 Untitled, Auckland Star, 5 January 1886; Untitled, New Zealand Herald, 19 February 1886.
176 Untitled, Auckland Star, 3 February 1886; Untitled, New Zealand Herald, 19 February 1886.
177 “Acclimatisation Society.”, Auckland Star, 10 March 1886.
It was not until 2 October 1888, some 14 years after Otago, that the AAS finally considered the streams of Auckland to have sufficient head of stock to permit fishing. At its October meeting, Mr. Connell, having ‘heard reports of full grown trout having been seen’ moved: ‘That the Colonial Secretary be requested to proclaim all the counties in the Auckland Provincial District, excepting the counties of Cook, Whakatane, and Tauranga, open for trout-fishing with rod and line...’\(^{178}\) After considerable discussion, the motion was eventually carried by the AAS. The following month, copies of the fishing regulations from Christchurch, which were in use across most of the country, were outlined.\(^{179}\) By March 1889 the proclamation permitting fishing had been gazetted, and trout fishing was available for the first time in the Auckland province.\(^{180}\) The season was to run from the 1 October to 31 March each year, and licence prices were set at ten shillings for a season, five shillings for a month, or, for travellers not residing in Auckland, two shillings and sixpence for a day.\(^{181}\) However, the AAS predicted: ‘It is not expected that much use can be made of the permission just now; but after a few more seasons trout should be sufficiently abundant in several localities to give fair sport.’\(^{182}\) In order to give eager anglers the best chance, the AAS intended to procure a supply of ‘county maps with the streams in which fish had been placed marked.’\(^{183}\) Whilst Tauranga was initially excluded from the proclamation opening the Auckland province to angling, on 7 November 1889 regulations for trout fishing in the Tauranga region were published in the *New Zealand Gazette*.\(^{184}\)

There is little evidence to suggest that the public capitalized on the opening of the rivers to trout fishing; absent are the reports from ‘Opening Day’, as were frequent in other regions, and reports of notable catches were few and far between. The *Star* even reported on the unpopularity of trout fishing in Auckland, stating: ‘We hear very little in Auckland of the pastime which Izaak Walton loved.’\(^{185}\) The reason for this was simple: not one licence was taken out for the first season, with just three taken out in

\(^{178}\) “Acclimatisation Society.,” *New Zealand Herald*, 9 October 1888.

\(^{179}\) “Acclimatisation Society.,” *New Zealand Herald*, 7 November 1888.

\(^{180}\) “Acclimatisation Society.,” *New Zealand Herald*, 7 November 1888.

\(^{181}\) Ibid.

\(^{182}\) Ibid.

\(^{183}\) “Acclimatisation Society.,” *New Zealand Herald*, 3 August 1889.

\(^{184}\) “Regulations for Trout-fishing, Tauranga Acclimatisation District.,” *New Zealand Gazette*, 7 November 1889.

\(^{185}\) “Aquatics.,” *Auckland Star*, 1 March 1890.
1889 and four the following year.\textsuperscript{186} One large fish was caught in January 1890 in the Waikato River at Hamilton, which spurred the AAS curator, Mr. Cheeseman, to proclaim ‘there will soon be excellent fishing in the district.’\textsuperscript{187} In an attempt to increase licence sales the AAS published a notice in the \textit{New Zealand Herald} in February 1890, advertising that the season for trout fishing ran between 1 October 1889 and 31 March 1890 and that licences could be obtained from the AAS for a fee of £1.\textsuperscript{188} They further offered a weekly licence to ‘Tourists and travellers not usually resident in the Auckland Provincial District…’ at a cost of 5s.\textsuperscript{189} Ultimately, however, there was relatively little angling undertaken in Auckland by 1890 (see Fig. 29).

Explaining this lack of interest is difficult, as the population dynamic was not substantively different from Canterbury or Otago. The most likely explanation appears to simply be the minimal influence of fresh water that meant Auckland colonists were not daily confronted with the possibility of trout fishing as they were in both Christchurch and Dunedin.

\textbf{Fig. 29: Trout fishing came to be a popular pursuit in Auckland, 1934\textsuperscript{190}}

\textsuperscript{186} Ashby, \textit{The Centenary History of the Auckland Acclimatisation Society}, 114.
\textsuperscript{187} Untitled, \textit{Auckland Star}, 2 January 1890.
\textsuperscript{188} Untitled, \textit{New Zealand Herald}, 1 February 1890.
\textsuperscript{189} Ibid.
Also curiously absent in Auckland is the destruction of native species believed to predate on the trout. There is an early mention of the dangers of shags in 1869, but this was in reference to carp that the AAS had received. The danger of shags was not raised in relation to trout until 1887, when a shag was observed taking a rainbow trout from Lake Takapuna. It is apparent that shags were later vilified as an enemy of trout, but, in direct contrast to all other regions, that did not happen in Auckland prior to 1890. Eels received slightly more attention, with one writer to the editor in 1878 stating that he was himself unable to conceive of a way to remove eels from trout streams, ‘but write this in the hope of drawing the attention of some brother angler to the subject.’ There appeared to exist a belief in the AAS that ‘[eels] would not be able to capture the imported trout or salmon.’ This belief was queried by a number of residents with one writing: ‘the eel especially is one of its [trout and salmon] greatest destroyers and enemies.’ This view came to dominate, with many, including the AAS, expressing concern over the destructive powers of eels: ‘our ill fortune may be from the number of eels which devour the young trout before they have a chance of establishing themselves.’ Despite this, at no point in the period was there ever any suggestion to eliminate the eels to further allow the trout to prosper. The approach undertaken in this period to trout predation in the Auckland region can be heavily contrasted with the remainder of the country. A likely cause of this is that those most vehemently in favour of the destruction of native species to preserve trout stocks were anglers, and, given the lack of a strong angling culture in Auckland prior to 1890, these views may not have been expressed strongly enough for action to be taken.

Despite minimal interest in angling, and without the usual steps to eradicate predators, environmental awareness as a result of the introduction of trout occurred comparatively early in Auckland and far preceded trout fishing. In 1870, the *Daily Southern Cross* decried:

---

occurring outside the immediate period of study, this image establishes the eventual interest in trout fishing in the Auckland region despite the relatively slow start.

193 “Trout in New Zealand.”, *New Zealand Herald*, 10 August 1878.
194 “Acclimatisation Society.”, *Daily Southern Cross*, 20 June 1876.
195 “The Hatching of Salmon.”, *New Zealand Herald*, 29 January 1876.
After all the care and expense gone to by the Society to introduce this favourite fish into the province, it would appear that some Goth of a settler seems resolved upon their destruction. We hope the rumour may be unfounded, but we have heard that some fellow is about to destroy the purity of the water in the creek by washing a flock of sheep a short distance above where the trout were liberated.¹⁹⁷

This issue came to a head the following year, when the *New Zealand Herald* ran a column on the conflict between farming and the AAS: ‘There is no shirking the question which has arisen between the action of the Acclimatisation Society and profitable farming in this province…’¹⁹⁸ The *New Zealand Herald* advocated a pragmatic approach, and co-operation between farmers and the AAS, but ultimately concluded that: ‘the horticulturalist is of far more importance to the community than the well-doing of the trout ova…’¹⁹⁹ This reflects the outlook of Auckland society that trout were important but not at the expense of agriculture or industry, further adding credence to the idea of trout as a secondary desire of colonists.

**Conclusion**

Auckland’s attempts to introduce brown trout demonstrate a number of unique regional characteristics. Initially, the focus of the AAS was almost exclusively on the introduction of birds, from which two inferences can be drawn. Firstly, the environment of bush hillsides immediately proximate to Auckland would have appeared far better suited to the introduction of birds than would the small rivulets for trout. Thus, it would have been perceived that there was greater value for Auckland in the introduction of birds.²⁰⁰ This accords with the similar focus in Wellington city, where a comparable environment is found. Secondly, it must be remembered that these acclimatisation societies were small organisations, and individual preferences were capable of having significant impact on the direction of the society. While the bushy and relative absence of fresh water explain the early avian preference, the presence of one or two committee members whose primary desire was to introduce trout could have countered this preference. The introduction of trout to Auckland also brought acclimatisers into contact with Māori far more than in any other region.²⁰¹ This is purely a result of the greater Māori presence around Auckland, but it resulted in a number of interchanges where iwi either endorsed, requested or assisted with, the

---

¹⁹⁹ Ibid.
introduction of trout to parts of Auckland. This contact will be addressed in Chapter Seven, but it is worth noting that many of the interactions, at least those reported in Pākehā newspapers, reflected positive cooperation and support from Māori.

At no point in Auckland do brown trout appear to have held quite the public interest that they did in both Canterbury and Otago, or even Wellington. There is a certain inherent level of interest in the introduction of trout that comes with a population comprised of British colonists, but, of the regions studied, Auckland demonstrated the lowest interest. This is evident both through the frequency with which trout were mentioned in newspapers, as well as the very limited uptake of fishing licences and even the lack of rewards offered for the destruction of eels or shags. Explaining this is difficult, as Auckland’s ethnic composition did not differ dramatically from that of Wellington (or even Canterbury for that matter, although it did not identify so overtly with England), where far greater interest was expressed.\(^202\) The most compelling reason for the disinterest is, again, Auckland’s environment, although the way this manifests is threefold. Firstly, the lack of freshwater influence in Auckland city meant colonists were not daily confronted with situations in which, with the presence of trout, they could go trout fishing. Secondly, the most significant conclusion able to be drawn from this study, is that the physical environment of Auckland was not conducive to the propagation and distribution of brown trout. Whilst this is known from a scientific perspective, this study provides historical proof of the way in which this reality affected the ability of the AAS to introduce trout to Auckland. As stated in the body of this chapter, Auckland was right on the northern boundary of where brown trout could be bred and accordingly the AAS was able to hatch and distribute some ova bred elsewhere but, as a result of higher water temperatures, no breeding population was established.\(^203\) The result of this is that the introduction of brown trout to Auckland was simply less effective than in other regions, and brown trout were not as common a sight in the few streams that did hold them as they would have been in other regions. Thirdly, with the strong coastal nature of Auckland, colonists had greater saltwater fishing opportunities available to them than in other regions. The

---

\(^{202}\) Rosalind McClean, “Introduction”, *Counting Stories, Moving Ethnicities: Studies from Aotearoa New Zealand*, Eds. Rosalind McClean, Brad Patterson & David Swain (Hamilton: University of Waikato Faculty of Arts & Social Sciences, 2012), 11

\(^{203}\) Scott & Poynter, “Upper temperature limits for trout in New Zealand and climate change,” 147.
lack of rivers, lakes and streams, the strength of the saltwater influence, and the relative scarcity of trout explain the relative disinterest in trout in Auckland.
Chapter Seven: Trout and Māori

Introduction

The history of the introduction of trout to New Zealand has been undeniably, and unavoidably, Anglocentric. The brown trout, as brought to New Zealand, is a British fish representative of a quintessentially British way of life, introduced almost exclusively by British colonists. The introduction of trout cannot be separated from this British perspective, but it is important to remember that the British were not the first to colonise New Zealand’s shores, nor the first to seek sustenance or utility from its waters. Māori are believed to have arrived in the 13th century, preceding British colonisation by over 500 years.¹ They found a land untouched by mankind and home to a unique environment that would provide them with the vast majority of their food and resources for many centuries. Much has been made in this thesis of the way in which trout enabled Pākehā to realise desires that were unattainable back home, but Māori felt the greater impact of the introduction of trout. To fail to give adequate weight to the Māori component of the introduction of trout would, therefore, be to fundamentally omit an entire portion of the history of brown trout in New Zealand. Despite the scarcity of writing on the introduction of trout, the relationship between Māori and trout has received a significant amount of attention from commentators, tribunals, and the judiciary. This chapter does not intend to provide a comprehensive history of this relationship, but rather to give historical context to the debates surrounding trout and Māori as well as indigenous resource management more generally.

In order to do this, the significance of freshwater to Māori must be established. Particular focus will be given to the conflicting opinions between Pākehā and Māori as to the utility of native freshwater fish. Following on from this, Māori involvement in, and reaction to, the introduction of trout to New Zealand will be outlined. It will also be considered whether they were in a position to exercise any agency over the introduction of foreign fish to an environment they were reliant on and over which they acted as kaitiaki or guardians.² Thirdly, the impacts of the introduction of trout

² Kaitiakitangi translates to guardianship, and kaitiaki to guardian. More broadly it equates to the Māori practice of managing and protecting their environment.
on Māori will be outlined. This will include a brief overview of the ecological impacts of introducing trout to New Zealand and the flow-on effects for Māori. Fourthly, the uptake of trout fishing by Māori, both legally and otherwise, will be queried. In particular, the differing ideologies between Māori and Pākehā relating to their respective trout fishing will be discussed. In concluding, two questions will be considered based on the findings of this chapter: whether Māori would want trout in New Zealand and whether trout should be seen as a part of the alienation of Māori from their waterways and resources.

The significance of freshwater to Māori

The abundance of freshwater in New Zealand was pivotal to Māori habitation following their arrival in the thirteenth-century and, over the ensuing 500 years before the arrival of Pākehā, they developed a more nuanced perspective on it than that of subsequent Pākehā colonists. Early Māori settlements were typically situated in coastal areas and it was by following the course of rivers that much of the exploration of the interior of the country was conducted. A number of New Zealand’s waterways, like the Whanganui and Manawatu rivers, were navigable and provided swift and efficient transportation routes inland. However, the greatest asset of freshwater to Māori was its significance as a source of food. As McDowall states: ‘New Zealand’s freshwater fishes were once among the most important traditional food resources for Māori.’ The ability to harvest food inland was critical in the establishment of the numerous Māori settlements that cropped up along the course of rivers, as well as inland lakes. As James Belich notes: ‘Inland waters provided eels and freshwater crayfish and mussels, and a dozen species of freshwater fish such as kokopu or “native trout”, grayling, whitebait and lamprey.’

This resource became increasingly significant as several bird species, including the moa, were hunted to extinction and other populations were in dramatic decline. Traditional Māori fisheries were governed by strict codes, stipulating when fish could be taken and in what quantities so as to ensure both a sustainable harvest as well as an equitable division of

---

3 Because brown trout and rainbow trout frequently cohabited it is impossible to delineate each species’ specific impact. Accordingly, they are dealt with collectively.
4 Catherine Knight, New Zealand’s Rivers: An Environmental History, (Christchurch: Canterbury University Press, 2016), 32.
6 James Belich, quoted in R.M. McDowall, Ikawai, 35.
the harvest.\textsuperscript{7} Thus, freshwater fisheries permitted Māori populations to sever their dependency on the coast for food and to spread throughout the interior of the country.

The most significant freshwater resource for Māori communities was eels or tuna, as a result of their wide distribution, abundance and nutritional content.\textsuperscript{8} So significant were they that the choice of location for certain Māori villages was motivated by their proximity to particularly favourable eeling grounds.\textsuperscript{9} In Māori culture eels were often distinguished from fish and considered a specific category of food, further emphasising their importance.\textsuperscript{10} Two species exist in New Zealand, the longfin eel (\textit{Anguilla deffenbachii}) and the shortfin eel (\textit{A. australis}). These are widely distributed and can be found in concentrated numbers on their spawning routes.\textsuperscript{11} A variety of methods were used to capture eels but the most significant were pā tuna (eel weirs) (see Fig. 30), which environmental historian Catherine Knight describes as:

\begin{quote}
…erected in the middle of rapids to catch eels migrating downstream in the fastest-flowing current. The pā tuna consisted of a v-shaped wooden race into which the eels would swim. The race narrowed at the downstream end, where a hinaki (basket or trap) was attached.\textsuperscript{12}
\end{quote}

Once captured, those eels that were not eaten fresh were dried and preserved, providing a long-lasting source of protein and fat.\textsuperscript{14} The fat content was of particular

---

\textsuperscript{7} Knight, \textit{New Zealand’s Rivers} 42.
\textsuperscript{8} McDowall, \textit{Ikawai}, 51.
\textsuperscript{9} Ibid, 211.
\textsuperscript{10} Ibid, 142.
\textsuperscript{12} Knight, \textit{New Zealand’s Rivers}, 42.
nutritional importance in light of the extinction of the moa, as few other commonly available food sources had a significant fat content. Their value was further attested by the fact that Māori sought to translocate, or acclimatise, these eels into inland lakes like Taupō and Rotorua. Because of the breeding pattern of eels, and their need to run to sea, these introductions were unsuccessful, but it provides an interesting comparison to British colonists seeking to introduce their preferred species to new locations in which they did not naturally occur.

Freshwater fish, as distinct from eels, also provided Māori with a significant source of food. The upokororo, or New Zealand grayling, was common to New Zealand’s rivers and streams until its extinction in the 1930s as a result of substantial habitat loss. Capture was affected by a similar method to eels, a weir was placed mid-stream and upokororo were captured on their downstream migration. A wide variety of smaller migratory fish, both smelt and galaxiids, also formed a substantial part of the pre-European contact Māori diet (see Fig. 32). As McDowall notes, because of the number of species and the often minimal differences between them it can be difficult to know exactly which fish were being referred to as they were collectively referred to as inanga at various points. These fish were often targeted in estuaries and rivers as they returned from the sea; however, a landlocked species referred to as koaro in its adult stage (Galaxias brevipinnis) was present in inland lakes such as Taupō, Waikaremoana and Rotorua where they were caught in a variety of different types of net. Whilst both were valuable food sources, because of the lack of tuna in landlocked lakes the koaro were probably a more critical species for iwi that relied upon them. Lamprey (Geotria australis), piharau (to North Island Māori) or kanakana (to South Island Māori), were a further food source that could be collected in great numbers again on their migratory path (see Fig. 31). Their significance was not on the same level as tuna, though they were prized for similar reasons. Koura, or

14 McDowall, Ikawai, 146.
15 Ibid.
16 Ibid, 203.
17 Upokororo are the only fish in the world classified as a saltwater fish (as they often moved in to saltwater at river mouths) to have become extinct.
18 Smelt (Retropinna retropinna and Stokellia anisodon) and kokopu (Galaxias fasciatus and G. brevipinnis) were at times distinguished by Māori, but to simplify matters they will be addressed as one along with other galaxiids. McDowall, Ikawai, 242.
19 Ibid, 281.
20 Ibid, 311.
21 Ibid, 120.
freshwater crayfish (Paranephrops planifrons and P. zealandicus), whilst not hugely plentiful in the majority of the country, were found in great abundance in the lakes of the central North Island.\textsuperscript{22} Here they formed a critical part of the diet and were viewed as a delicacy. Because of their value, it is likely that they too were translocated around the country, although this cannot be stated definitively.\textsuperscript{23} Finally, kakahi (Echyridella menziesii) are a species of freshwater mussel found in New Zealand lakes. Their culinary value is contested, with Elsdon Best describing them as ‘insipid’ and Sherwood Roberts as ‘frightful’, but it is clear from the middens of shells found around the country that at various stages they provided a valuable source of food.\textsuperscript{24}

There is no debate whatsoever that New Zealand’s freshwater fisheries were of immense importance to Māori, nor that many iwi were reliant on them for their food.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{lamprey-weir.jpg}
\caption{Lamprey weir, Whanganui River, c.1856-1889\textsuperscript{25}}
\end{figure}

\textsuperscript{22} Ibid, 359.
\textsuperscript{23} Ibid, 362-3; This is made more likely by the fact that koura are a robust species that can themselves undertake overland journeys. I once found one whilst walking a west coast track at night in a small puddle in the roots of a beech tree at least 50 metres from the nearest body of water.
\textsuperscript{24} McDowall, Ikawai, 373.
Thus, there is a direct and striking contrast between the Māori view of freshwater fish and the view of British migrants arriving in New Zealand throughout the nineteenth-century. There was a perception amongst British migrants that New Zealand’s rivers and lakes were, if not barren, at the least lacking in useful fish. This was particularly evident with sports fish, as discussed in Chapters One, Eight and Nine. However, this view extended beyond mere sporting opportunities to the actual utility of New Zealand’s rivers and lakes, with the *Otago Daily Times* stating: ‘It is a most serious lapse on the part of old Dame Nature that these rivers should be destitute of fish of any importance…’

26 Botanists like William Colenso indicate that some Pākehā colonists viewed New Zealand’s environment through more nuanced glasses, but more common was the view of the leading New Zealand scientist, James Hector that: ‘The absence of fish from our rivers has always been a matter of wonder and regret to the colonists…’

27 This view continued well into the twentieth-century. David Fuller, who married a Te Arawa woman, wrote in his 1978 book, *Maori Food and Cookery*, that: ‘the indigenous varieties of freshwater fish were very limited.’

28 McDowall contends that: ‘…these negative pākehā attitudes simply reflected a combination of ignorance and the fact that fish present in our waters were different from those that the settlers had valued in England.’

29 The lack of relatable fish is curious in light of the fact that eel, particularly jellied, was a common food source in nineteenth-century England, and many commentators noted the abundance of eel in New Zealand’s waterways. As jellied eel was typically eaten by the working class in England it raises the possibility that British colonists were less willing to acknowledge the value of eels because many believed they had moved beyond such foods in migrating to New Zealand.

30 This outlook is further attested to by the fact that colonists gladly accepted eel from local Māori, or learnt traditional Māori inanga harvesting methods, to stave off starvation while in remote corners of the country.

31 Overall, however, there is a clear dichotomy between the Māori and Pākehā
perceptions of the value of New Zealand’s freshwater fisheries, leading to an undervaluing of the native fresh water fishery in favour of introducing species like trout, with significant run-on implications.

It is necessary also to acknowledge that the Māori relationship with, and understanding of, freshwater differed fundamentally from that of Pākehā. To Māori, the physical rivers and lakes were indistinguishable from their spiritual and ancestral components; something Knight refers to as the ‘indivisibility of rivers in the Māori conception.’ Waterways had mauri, or life force, that was capable of being harmed if it was not respected, and this mauri in turn became intrinsically linked to the health of the people who identified with that waterway. Writing of the unity between Te Āti Haunui-a-Pāpārangi and the Whanganui River, David Young states: ‘For hundreds of years these people have regarded the river as a continuously moving stream with which they were in harmony...’ Such was the extent of the connection between Māori and water that some rivers were considered tupuna awa: an ancestor inextricably connected with the identity of an iwi. The river to which an iwi is connected invariably forms a part of the mihi for members of that iwi, as it is a defining characteristic of who they are. This spiritual connection to the rivers and lakes themselves extended to what lived within them. Atholl Anderson et al explain that: ‘The creatures of wai tai (sea water) and wai Māori (fresh water) descended respectively from Ikatere and Tutewehiwehi, grandchildren of Tangaroa [god of the sea in Māori mythology].’ Thus freshwater fish were seen as a part of the mauri of a river and one of the tenets of Māori fishing practices was to manage the resource such as to uphold this mauri. To consider the implications of introducing trout from a purely material level would, therefore, be to fail to understand the nuances of the Māori relationship with fresh water in New Zealand.

33 Knight, New Zealand’s Rivers, 38.
35 Knight, New Zealand’s Rivers, 38.
36 A mihi is a speech of greeting.
Māori involvement with, and reaction to, the introduction of trout

Māori were, to a large extent, observers, rather than agents, in the introduction of trout to New Zealand. Whilst the impact on Māori of the introduction of trout will be shown to have been significant, settlers made this introduction with negligible thought to its impact and with minimal Māori consultation.\(^{39}\) Unsurprisingly, there is a direct correlation between the concentration of Māori and their involvement in the introduction of trout, and accordingly there is very little evidence of both the involvement with, and reaction to, the initial introduction of trout to the South Island. Wellington saw some retrospective cooperation between iwi and acclimatisers, whereby protection from netting was sought and granted, and in one instance 60 brook trout were sent to Wi Parata of Kai Tahu to be placed in the Waikanae River.\(^{40}\) However, by far the greatest Māori involvement in the introduction of brown trout to New Zealand was in the northern half of the North Island. The simplest, and most accurate, explanation is simply that there was a vastly greater Māori influence in the region. Upon the introduction of trout into the Piako and Waitoa rivers near Thames in 1872 by Josiah Clifton Firth it was feared that the trout would be interfered with by local iwi. However, this fear was mitigated by communication between Firth and Māori, whereby he requested the trout’s protection by local iwi for several years.\(^{41}\)

In early 1873 the *New Zealand Herald* ran an article on the Te Kuiti district and imputed a desire for trout upon local Māori:

The natives feel the want of fish as an article of food very much; and we are authorized to say that if the Auckland Acclimatisation Society were to send a quantity of trout up to Cambridge, and communicate with the chief Hitiri of Otearoa, he would send down men to take them safely up to the district, place them in the streams, and protect them until they had increased sufficiently to admit of fishing… The propagation of trout in the fishless streams and rivers of the interior, in the heart of the King’s country, would do more to create friendly feeling towards Europeans than perhaps anything else.\(^{42}\)

This reflects an Anglocentric viewpoint, as to Māori the streams were not fishless, but it still imputes on certain iwi a desire for the introduction of trout as a food source.

---

\(^{39}\) The relative absence of Māori sources, discussed in Chapter One, is particularly applicable in trying to determine the early Māori reaction to the introduction of trout. I am reliant largely on Pākehā newspapers, which are subject to an intrinsic colonial bias, although both positive and negative reactions to the introduction of trout are recorded in these sources. Significant attention has been paid to the reports of the Waitangi Tribunal as these relate to trout in an attempt to address this source bias. Addressing Māori language newspapers would benefit future research.

\(^{40}\) “A Long Prayer Heard.”, *Wairarapa Daily Times*, 19 December 1885, 2; Untitled, *Evening Post*, 10 September 1888, 2


\(^{42}\) Untitled, *New Zealand Herald*, 24 April 1873.
With regard to salmon ova, distributed throughout the Auckland region in late 1875, Firth stated: ‘The King Maoris, and, indeed, everybody, were delighted with our work – the former greeting us with “Kapai te hamona; all same as the tin”- meaning, that salmon was very good, being like the salmon preserved in tins, which they appreciate highly.’ Further to this point, at each spot at which salmon were released ‘I [Firth] posted up a notice in Maori and English requesting everyone not to disturb the ova, so that in a few years there might be abundance of food for both Maori and European.’

This establishes a familiarity with trout and salmon as a food item, providing a foundation for the belief that they would provide a source of food for Māori in the future.

Māori were the first to dine on trout in Auckland. In 1880 there were reports of Māori shooting fish they likened to a mullet, but with pink flesh, in the upper Thames as they rose to natural flies. In 1882 a further instance of Māori cooperation with the introduction of trout is seen in the transportation of trout to Raglan. The ova were transported from Auckland to Hamilton by train, then by a messenger to Whatawhata ‘where Maoris have been waiting for some days past to carry it on at once to the hatching house at the Okete falls.’

The *New Zealand Herald* ran a piece on the acclimatisation of trout, and stated:

> We are sure the Maoris would give the fullest freedom to the society to establish hatching ponds in any of their districts, and also do what they could to afford protection to the young fish when hatched. … Not only will a source of enjoyment be provided for Maoris and others, but a supply of food will be furnished to them which will be both pleasant and nutritious.

Furthermore, in 1885, 60 trout released into the Thames were ‘put under tapu by the natives for five years.’ Mr. Ellis then returned three years later with a further two hundred fish and was assisted by the chief Taonui (probably Taonui Hikaka, of Ngāti Rora and Ngāti Maniapoto) to liberate these fish into the Waipa River.

Writing of this introduction, the *New Zealand Herald* stated: ‘amidst great rejoicing from the

---

43 "Distribution of the Salmon Ova.”, *New Zealand Herald*, 20 November 1875.
44 It is pertinent to note that an ‘abundance’ of food for Māori and European alike does not connote the necessity to purchase a licence to partake; Ibid.
45 “Acclimatisation Society.”, *New Zealand Herald*, 8 June 1880, 3.
46 “Waikato District News.”, *New Zealand Herald*, 14 September 1882.
47 As will be seen in subsequent sections, the notion of fishing for sport, or even the very concept of sport, was foreign to Māori; “Trout and Salmon Acclimatisation in Auckland.”, *New Zealand Herald*, 14 June 1883.
48 “News In Brief.”, *New Zealand Herald*, 5 March 1885 ; “Successful Introduction of English Brown Trout into the King Country.”, *New Zealand Herald*, 5 July 1888.
49 “Successful Introduction of English Brown Trout into the King Country.”, *New Zealand Herald*, 5 July 1888, 5.
Maoris, they [the trout] were safely deposited, and no doubt in a few years will afford
sport and food to both Maori and pakeha.  

While the overall reaction to the introduction of trout amongst Māori was fairly
positive, there were instances of opposition. In 1872 a notice was given to the
Government by Te Rununga o Arowhenua, which stated:

Do not, oh white people, place fish in these waters between Waitaki and Lake Ellesmere; in
none of those waters place fish. No not, oh white people, thoughtlessly place your fish in these
streams, because it is from the native birds and fish that we get most of our food. 

Similarly, the Eastern Māori Member of the House of Representatives, Wi Pere,
opined that: ‘...the only fish fit for food in this country are the inanga, the kokopu and
the tuna; these are relishable fish and good to eat…the pakeha fish should be
destroyed and they should not be allowed to propagate.’ Such views offer definitive
opposition to the Pākehā notion of barren rivers and allude to a belief amongst Māori
that the introduction of trout could threaten their customary fisheries. What’s more,

50 Ibid.
51 “Fishing for Kokopu (native trout): A Snapshot in the Lake Taupo District, Auckland,” Auckland
Libraries Heritage Images Collection, [Accessed 5 December 2017:
53 Wi Pere, quoted in McDowall, Ikawai, 644.
they also hint at an understanding of the prospective ecological impact of trout. These beliefs were not ubiquitous, however, and the broad impression from available historical sources is that Māori were generally positive about the prospect of trout.

From the mid-1890s in specific regions Māori played a greater instigating role in the introduction of trout. In 1895, a deputation of Tūhoe chiefs met with Prime Minister Richard Seddon in Wellington and requested, amongst other things, the establishment of a trout breeding facility at Lake Waikaremoana.44 Interestingly, the Nelson Evening Mail even suggested that: ‘they may take what fish are required for food with gaff or net, but the murderous use of lime or dynamite is sure to be prevented.’45 This represents a marked diversion from the legal standpoint at the time and reflects the fact that one of the primary motivations of this introduction was to form a food source for famine-ravaged Tūhoe.46 The following year Seddon communicated his intention to send trout from the government hatchery at Masterton to the Ureweras as both a source of food for Tūhoe and tourism for Pākehā.47 In late 1896 a Mr. Rutherford travelled by train to Napier, on the S.S. Te Kapu to Wairoa and by horse and cart to Waikaremoana.48 Upon arrival he made use of a government boat and with the assistance of local Māori placed trout in a number of the tributary streams of Lake Waikaremoana. The exact number of fish distributed is unclear, but this introduction was supplemented by a far larger consignment of 100,000 brown trout delivered by Lake Ayson, the curator of the Masterton fishponds, shortly thereafter.49 Significantly, Ayson also took with him a number of hatching boxes so that subsequent shipments could be made in the form of ova to be hatched under the care of Tūhoe. By 1900 400,000 trout had been placed in the lake and Minister of Native Affairs James Carroll declared the government’s intent ‘to make Waikaremoana a big

---

44 Brown trout were first introduced to Waikaremoana in 1883 by the Hawke’s Bay Acclimatisation Society; Untitled, Nelson Evening Mail, 26 September 1895, 2; “Acclimatisation Society.”, Hawke’s Bay Herald, 1 February 1883.
45 Ibid.
47 Second Schedule, Urewera District Native Reserve Act 1896, 70.
“show place” for the tourist traffic.’ Had the fishery remained unregulated this could have been an instance of the Māori-Pākehā trout dichotomy being resolved in a mutually beneficial way; however, it is apparent that by 1904 a fishing licence was required to fish the lake and by 1912 Waikaremoana Māori were being reported for poaching trout.

Overall, it is fair to state that the initial reaction of Māori to the introduction of trout was positive. This can be seen through the assistance granted to acclimatisers to distribute trout, the protection granted to the trout by iwi and the desire to introduce trout as a source of food. The reality is that this positivity was largely borne of misinformation and false expectations, made apparent in the belief of Tūhoe that they could take trout freely from Waikaremoana. British colonists were accustomed to trout fisheries being regulated, whereas the Māori perspective is better surmised by Te Whiti-o-Rongomai of Te Āti Awa and Parihaka: ‘fish are the property of those who can catch them, are they not?’ This again reflects the aforementioned dichotomy between Pākehā and Māori perspectives. Where Māori endorsed the introduction of trout, pronounced them tapu for a period of years or sought their introduction to specific regions, they did so under the belief that these fish would be available for their unregulated consumption and could replace many of the native fish that the trout were displacing. Te Whiti again offered a valuable perspective, stating:

…it is right to close them [trout fisheries] up for a certain time, but they ought to be protected for a certain number of years, and then, when there would be plenty, every man should be allowed to fish for them. As it is, only the man with plenty of money can afford to catch these fine fish you speak of…

The notion of an unregulated fishery represents the egalitarian ideal of introducing trout to New Zealand and was a view shared by some colonists, as discussed in Chapter Nine. There is a clear transition in the Māori opinion of trout from the point at which they, based on established fisheries customs, believed that trout would provide a beneficial and accessible food source for all to the point at which they

---

60 “Local and General”, New Zealand Times, 15 March 1900.
61 Untitled, Poverty Bay Herald, 20 February 1904;Untitled, Oamaru Mail, 10 January 1912, 3.
62 Te Whiti, quoted in McDowall, Ikawai, 640.
63 Or if the taking of fish was regulated, it would be in a manner akin to traditional Māori fishing practices so as to avoid exploitation. The payment of a fee in order to have the right to fish was an entirely foreign concept to Māori.
64 Te Whiti, quoted in McDowall, Ikawai, 640.
65 “Correspondence.”, Wairarapa Daily Times, 8 March 1888, 2.
became aware that these fish were to be regulated and fishing for them without a licence could render an angler liable to significant fines.

The impacts on Māori of introducing trout to New Zealand

In New Zealand, and particularly south of Auckland, trout found an environment ideal for them with water temperatures in the perfect growth rate range, ample food and few predators. New Zealand’s water clarity assisted drift feeding on invertebrates, whilst the significant numbers of native fish and crustaceans provided a major protein boost to their diet and facilitated the incredible growth that resulted in trout far beyond the sizes typical in Britain. I feel confident in stating that none of the native fish listed above would have escaped predation by trout at some point or another: even eels, whilst too large in their adult state, are consumed heavily in their juvenile forms. Much of this can be substantiated through early observational reports such as an article in the New Zealand Herald in 1909, which observed a trout in the Wyndham with a half swallowed kanakana (lamprey) in its mouth. In introducing trout to New Zealand, acclimatisers saw the populations of native fish as a reason for the probable success of brown trout as they knew they would form a food source for trout. Within months of their introduction in 1867, colonists had an indication of the potential impact of brown trout when the fish housed in the Canterbury Acclimatisation Society pond consumed the entirety of the native fish in the pond.

Early scientific assessments acknowledged predation but debated the impact of it, with K. Radway Allen saying: ‘…it is much less simple to determine what effect, if any, the salmonids have had upon the original fauna…’ However, recent studies are more critical of the effect of trout stating that, whilst trout have not been responsible for the absolute extinction of any native species, in a number of cases: ‘…trout have been responsible for the local extinction of galaxiids and have taken over the general ecological role of the native.’ In particular, Colin Townsend notes the destruction of

66 Because brown and rainbow trout often coexisted it is not possible to distinguish between the impacts of each species and accordingly they will be addressed collectively as ‘trout’.
koaro by trout in the North Island lakes. As will be demonstrated, the scientific
assessment is substantiated by contemporaneous reports from the region. McDowall
also argues that there is an inverse correlation between the distribution of trout and
koura, establishing that it was not just native fish that were impacted by trout.
Finally, because brown trout exhibit anadromous tendencies, meaning they are
capable of living in both salt and fresh water although can only spawn in fresh water,
the impact of their introduction was not restricted to fresh water. However, because
New Zealand is home to numerous indigenous saltwater species that would occupy a
similar ecological niche to trout, the impact of the introduction would have been far
less apparent in salt water. The overall position in all southern hemisphere waters is
summarised by McDowall: ‘With few exceptions, where these trout have been
introduced there has been a major decline in the galaxioids...as a result of a
complexly interacting series of adverse impacts from these introduced fishes.’
This is equally applicable to species beyond galaxiids. To a certain extent, British settlers
predicted this displacement, as Peter Gibbons notes: ‘The indigenous species were
expected to die out, like the Māori themselves, displaced by what the colonists
imported.’ Whilst no native species has been rendered extinct as a result of the
introduction of trout, there is no question that they had a major impact displacing and
reducing indigenous freshwater fish and crustaceans within New Zealand.

Across this period, a number of Acts sought to protect Māori customary fishing rights
as granted under the Treaty of Waitangi, but the position with regard to trout was not
directly addressed in legislation. The Fisheries Protection Act 1877 made specific
provision for Māori fishing rights, with Section Eight reading: ‘Nothing in this Act
shall be deemed to repel, alter or affect any of the provisions of the Treaty of
Waitangi, or to take away, annul, or abridge any of the rights of the aboriginal natives

---

71 Ibid, 16.
72 Ibid, 16.
73 R. M. McDowall, “Crying wolf, crying foul, or crying shame: alien salmonids and a biodiversity
crisis in the southern cool-temperate galaxiid fishes?”, Reviews in Fish Biology and Fisheries 16, no.
74 Peter Gibbons, “Cultural Colonisation and National Identity”, New Zealand Journal of History 36,
75 A similar debate took place as to whether Māori required a licence to hunt kereru upon their
protection under the Protection of Certain Animals Amendment Act 1866, however before a
determination could be reached this act was revoked and kereru, and all native game, were no longer
subject to protection under this act; Kate Hunter, Hunting: A New Zealand History, (Auckland:
Random House, 2009), 57.
to any fishery secured to them thereunder." However, as McDowall notes: ‘this provision did not deal with issues of access to fishing waters, nor did it protect Māori fisheries from deteriorating habitat or habitat loss, from impacts of alien fishes, or from over exploitation.’ Furthermore, that same year, the Chief Justice Sir James Prendegast, in *Wi Parata v Bishop of Wellington*, declared the Treaty to be ‘worthless’ and a ‘simple nullity’. This proved highly influential and from the earliest stage the courts held that the Treaty of Waitangi did not confer a right to fish for trout upon Māori. The determinate case was heard in 1890 when: ‘Seven Maori were caught illegally taking trout and other fish on private property at White’s Bridge Waimakariri… It is understood that they claim the right of fishery under the Treaty of Waitangi.’ One of the defendants, Teoti Pita Mutu of Ngāi Tahu, stated he ‘believed they had a right to fish in the Waimakariri under the Treaty of Waitangi and the Ngaitahu deed.’

A Māori member of the Upper House, Hore Kerei Taiaroa, referenced Section Eight of the *Fish Protection Act 1877* in stating: ‘it was interpreted to them by the Government at the time as protecting the rights of Maoris to fish in all rivers and lakes. He believed that the Treaty allowed them to catch trout, as the imported fish had come in among the indigenous fish.’ This view was endorsed by Wi Naehira, one of the Ngāi Tahu chiefs. Ultimately Justice Greenfield, determined:

> The Natives must have known and did know that they had no legal claim under the treaty to rivers and fisheries within the area ceded to the Queen subsequent to the treaty by Kemp’s deed… It would be just as reasonable for the Maoris to claim under the treaty all the forests, and the right to cut timber, as to claim all the rivers and fisheries within the area they sold.

This case was highly influential at the time and provided the legal foundation for a significant number of poaching prosecutions. Whilst rights to customary fisheries have been acknowledged to a greater extent today, the legal position as regards trout remains the same; that the Treaty of Waitangi does not confer upon Māori a right to fish for trout without a licence.

---

76 S8, *Fisheries Protection Act 1877*.
77 McDowall, *Ikawai*, 745.
78 *Wi Parata v Bishop of Wellington* (1877) 3 NZ Jur (NS) SC 72.
79 "The Treaty of Waitangi.,” *New Zealand Herald*, December 13, 1890.
81 ibid.
82 “The Maori Fishing.,” *Star*, March 20, 1891.
83 *Taranaki Fish and Game Council v McRitchie*, High Court, Wellington, AP No. 19/97, 14 May 1998, Neazor & Greig JJ.
With the value of native freshwater fish as a food source to Māori, as well as the predation of these fish by trout, established, one of the greatest impacts of the introduction of trout to New Zealand is evident: the displacement of traditional food sources by trout. Thus, this added another dimension to whether there was a right to fish for trout under the Treaty of Waitangi. Across the direct period of my research (up to 1890), there was little reference made to this displacement; however, by extending the parameters slightly it is clear that by the early 1900s the displacement of native species and the loss of traditional food sources were keenly felt by iwi around the country. Writing in 1904 John Fisher of Southland queried whether:

85 Māori customary rights to fish for indigenous species can be sourced through Article 2 of the Treaty of Waitangi or in aboriginal title; Kiri Chanwai and Benjamin Richardson, “Re-working Indigenous Customary Rights? The Case of Introduced Species”, *New Zealand Journal of Environmental Law* 2, no. 1 (1998): 166.
If the mutton-birds, sardines, and mullet disappear as the result of the introduction of trout – and these form a big part of the Native’s support and the natives having certain traditional rights recognised by our country, will the Natives have a claim upon the societies of the State for compensation or consideration for their loss?\(^{86}\)

This statement appeared to be largely hypothetical at this point in time, but it does confirm an early awareness amongst Pākehā of the issue of displacement of indigenous species by trout as well as the possibility of a Māori right to compensation for that displacement.

The most significant instance of displacement related to the destruction of koaro and koura in North Island lakes. In 1896, the *Nelson Evening Mail* published a piece that stated: ‘Many complaints are made by the Maoris of Lake Rotorua that the trout there are so numerous that they have destroyed all koura and other native fish.’\(^{87}\) As a result of this displacement, trout were frequently poached to the extent that a Rotorua constable wrote to government requesting assistance.\(^{88}\) In August 1908 the *Thames Star* stated:

> In the olden times the Arawas had a mana over Lake Rotorua and other waters thereabouts, and the kura (a dainty little crayfish) flourished for them. Then came the trout and the tourist. The trout ate the kura, and the licensed tourist ate the trout. Soon there was no kura for the Maori, and as he could not afford a licence to kill trout, he had no more of that delicacy than he could poach while the rangers back was turned.\(^{89}\)

This reflects a nuanced perspective on the issue, in particular in acknowledging Te Arawa mana over the water. The reduction of koura brought about a major debate as to whether the displacement of traditional food sources, protected under the Treaty of Waitangi, by introduced trout brought about a right for Māori to fish for trout without a licence under the Treaty.\(^{90}\) This was the basis for numerous poaching defences throughout the late 1890s and early 1900s, and a request was even put to Prime Minister, Richard Seddon, for permission to take trout without a licence on this basis. He replied:

> So you appeal to me, through the Treaty of Waitangi, to give you the right to fish in Lake Rotorua for trout, without payment or hindrance, because the trout have swallowed up all the koura fish – your only food. Well, I’ll consult my tourist friends and, if they are agreeable, I’ll

\(^{86}\) “Mutton-Birds and Trout.”, *Otago Daily Times*, 10 June 1904

\(^{87}\) “A Maori Complaint.”, *Nelson Evening Mail*, 18 September 1896

\(^{88}\) William Murray, Constable, Rotorua - Fish Being netted by Natives at Ngongotaha - asking for help, R16224480, Archives New Zealand, Auckland, New Zealand.

\(^{89}\) “The Maori and the Trout.”, *Thames Star*, 26 August 1908, 4.

\(^{90}\) This argument is still regularly raised in legal proceedings today, though the courts have definitively stated that there is no customary right to trout because of their status as an introduced fish that has always been subject to statutory control; *Taranaki Fish and Game Council v McRitchie*. 
put you up an ice chest, in which to put the fish they might give you to eat for yourselves. Hang the Treaty of Waitangi! I mustn’t spoil sport and the tourist traffic.\textsuperscript{91} Seddon’s response represents a compromise between the two competing usages of trout in Rotorua: as a source of food for Māori and as a source of tourism for Pākehā.

Responding to remarks Seddon had previously made, Mr. Earl, the president of the Auckland Acclimatisation Society, expressed concern as to unmitigated Māori access to trout.\textsuperscript{92} He did, however, endorse a reduced licence rate for Māori to fish for trout in Lake Rotorua, where the impact of the trout on koura was hardest felt. The \textit{Observer} phrased the issue as the public being: ‘called upon to make a choice between humanity to the hungry Maoris of the Rotorua district and the desire to minister to the sporting instincts of the tourist visitors.’\textsuperscript{93} Accordingly, this debate highlights the conflict between British sporting ideals and Māori subsistence living, and indicates two very different cultural ideologies. Sir Āpirana Ngata wrote of this that: ‘…the Maori mind cannot understand the psychology of the Pakeha in regard to sport, particularly fishing.’\textsuperscript{94} Similarly, McDowall observed a fundamental dichotomy between Pākehā and Māori, whereby Māori wanted to preserve their traditional fisheries whilst Pākehā saw little to no value in these species.\textsuperscript{95} This is particularly pertinent in light of the fact that colonists were not reliant on the trout for food, seeing them largely as a sporting pursuit, whereas Māori often were reliant on the displaced species.\textsuperscript{96} To this end, there are repeated instances of native fisheries being viewed first and foremost as a food source for trout, with their value to Māori coming in a distant second. In 1920, the naturalist William Phillips explained the deterioration of the condition of trout in the central North Island by: ‘continuous destruction of trout food by the Maori.’\textsuperscript{97} Similarly, in Hawke’s Bay the acclimatisation society sought to: ‘prohibit or restrict the taking of inanga in the Tuki-Tuki River as it felt some measure of protection at least must be adopted for the purpose of preserving and propagating the young trout.’\textsuperscript{98} Such views hint at the fact that Pākehā saw the greatest value of native fish as a food source for trout, further affirming the notion that they viewed

\begin{itemize}
  \item \textsuperscript{91} “Making a Charity of His Rights.”, \textit{New Zealand Observer}, 17 March 1906.
  \item \textsuperscript{92} “The Premier and the Rotorua Trout.”, \textit{Auckland Star}, 12 March 1906, 5.
  \item \textsuperscript{93} “Those Rotorua Trout.”, \textit{Observer}, 24 March 1906, 3.
  \item \textsuperscript{94} Sir Āpirana Ngata, \textit{New Zealand Parliamentary Debates} 211, (1926): 290.
  \item \textsuperscript{95} McDowall, \textit{Ikawai}, 637.
  \item \textsuperscript{96} This is not to say that trout were not a food source for Pākehā, merely that they did not rely on it.
  \item \textsuperscript{97} William Phillips, quoted in McDowall, \textit{Ikawai}, 647.
\end{itemize}
New Zealand’s rivers and lakes as devoid of any fish of great utility prior to the introduction of foreign species.

The displacement issue continued to build and by 1908 reports were being received that ‘…the Natives at Rotorua were practically starving owing to being unable to take trout out of the lakes.’ Following consultation with the Rotorua Māori committee, a request was put to the Minister for Tourist and Health Resorts as to whether: ‘…free licences [could be given] to nominated heads of Maori families to fish for trout during designated periods.…’ This drew a mixed reaction from settler society with some, often those involved in the acclimatisation movement, believing that ‘free fishing for the Maoris should not be entertained,’ and that purchasing a licence ‘will not be any hardship’ for Māori. However, not all Pākehā saw the matter in this light with the Thames Star writing: ‘The pakeha’s trout took away the kura [sic], one of the native’s staple items of diet; the pakeha, therefore, is under a moral obligation to permit the Maori to take reasonable revenge on the trout.’ This issue came to have wider significance, as there was a belief that Māori confidence in Pākehā law was dependent on the resolution of practical matters such as these. As a result, in 1909, 20 special licences were issued for Māori in the ‘thermal regions’, either at a reduced cost of one shilling or free, so as to allow the licence-holder to ‘fish for trout for consumption by himself and family only’. However, conflict continued until 1922 when it was amicably settled, with the government agreeing to pay Te Arawa £6,000 annually, to increase the number of trout fishing licences gifted to the tribe and to attempt to provide protection for the koura.

In 1924 a similar agreement was reached with regard to Māori rights to Lake Taupō, which had not enjoyed the same amount of press as Rotorua, ensuring fair access to trout fishing in Taupō and vesting half of the income from licence sales to Ngāti Tūwharetoa. To this day, the fisheries of the central North Island, specifically Taupō and Rotorua, are managed with particular

99 “Maoris and Trout.”, Dominion, 8 August 1908.
100 “Fish Supply.”, Dominion, 20 August 1908.
101 This, perhaps more so than any other comment, hints at the Anglocentric perspective of colonists opposing free licences for Māori. Many Māori in Rotorua were, in this period, still living a subsistence lifestyle and operated largely independently of British currency; Ibid; “The Treaty of Waitangi.”, Bush Advocate, 6 February 1905.
103 There are conflicting reports as to the cost, but it appears to have become free in later years; “Maori Anglers.”, New Zealand Herald, 19 March 1909; McDowall, Ikawai, 655.
105 “Taupo Fishing Rights.”, New Zealand Herald, 3 November 1924; McDowall, Ikawai, 661.
attention to Māori values and reflect a more collaborative approach. This can be evinced through the acknowledgement in the 2014 Eastern Zone Sports Fish and Game Management Plan that: ‘The Rotorua lakes are of special significance to the Te Arawa people, and have historical and traditional values. Tangata whenua value water as the essence of life, or mauri – the spiritual life force. Māori are the kaitiaki of this mauri, and have the responsibility to protect it for future generations.’ To this end, Te Arawa privately own Rotokakahi (or Green Lake) and no public access is available to the lake. Similarly, in Lake Taupō only Tūwharetoa may take smelt or koura from the lake.

Beyond the predation of native species by trout, Māori access to customary fisheries was further limited by measures taken to protect the newly introduced trout. The most notable was the organised destruction of eels by acclimatisation societies stemming from a belief that they consumed trout. This is discussed at length in Chapter Eight, but it is worth reiterating here in light of the value of eels as food to Māori. Again, this reflects the dichotomy between Māori and Pākehā freshwater management. Māori had, for centuries, relied on eels and carefully managed the fishery so as to prevent exploitation, whilst Pākehā saw eels as an impediment to the establishment of trout and sought their destruction. In many instances, trout were also a common by-catch for Māori whilst fishing for native fish like eels or inanga, and this rendered them liable to significant fines for illegally fishing for trout without a licence. It is also briefly worth noting that the impacts of trout on Māori extended beyond the physical destruction of traditional food sources. Māori were kaitiaki of their freshwater resources and the introduction of a non-native predatory fish, without consent or consultation, dispossessed Māori of their kaitiakitanga. Furthermore, the introduction of trout was sometimes seen as reducing the mana and mauri of the waterways into which they were introduced. Waitangi Tribunal historian Ben

---

108 This often formed the basis of numerous poaching defences, as shall be expounded upon in the subsequent section; Knight, New Zealand’s Rivers, 99.
109 “Fish Supply.”, Dominion, 20 August 1908.
110 It is interesting here to note that even the concept of mana has been reconstructed in a colonial light, moving from a mana of control and power to a mana influenced by the loss of Māori authority; Lindsay
White referred to this introduction as ‘another abrogation of Maori rights in the Rotorua lakes.’

111 While this loss of mana did not receive the same attention as the displacement of critical food sources in the Rotorua Lakes, it nonetheless formed a core part of the complaints levied against trout. The introduction of trout to New Zealand should, therefore, also be seen to have had a spiritual and ancestral impact upon Māori.

**Māori anglers, legal and otherwise**

Regardless of whether Māori approved of the introduction of trout or not, it is clear that from shortly after their introduction many became trout fishermen through accident, desire or necessity. This angling fell into two camps: poaching, and legal angling following the purchase of a trout fishing licence. In the early years of New Zealand’s trout fishery, there were very few instances of Māori licence-holders, and most early trout caught by Māori were, by definition, poached. But Māori anglers were not necessarily targeting trout, nor aware that their actions were illegal. There was confusion surrounding the legal status of trout, and Māori were influenced by the belief opined by Te Whiti that fish belong to whoever can catch them. Although there are no reported instances prior to 1880, it is certain that trout would have been inadvertently caught in hīnaki or other nets set for indigenous fish from a much earlier date. Māori, unfamiliar with trout, may either have not realised what they had caught or viewed the by-catch as a propitious and entirely legal bonus.

The first definitive record of Māori taking trout was in 1880, with the reports of trout being shot in the Thames River, near Auckland. Similarly, in 1885, reports came through of Māori netting the Waipoua in the Wairarapa. The initial approach of the acclimatisation societies, upon hearing these reports, was to communicate with local iwi to seek their assistance in the protection of trout, which was typically granted

---

111 Ben White, quoted in McDowall, *Ikawai*, 642.
112 That it did not receive significant attention in newspapers is a testament to the fact that mana was a Māori concept with which Pākehā had relatively little familiarity, whereas starvation is a human concept to which all peoples can relate.
113 Attesting to the dietary adaptability of Māori that McDowall alluded to; McDowall, *Ikawai*, 640.
happily.\textsuperscript{116} In Waipoua, despite communication between iwi and acclimatisers, poaching occurred again in 1887 yet no steps were taken to prosecute the poaching.\textsuperscript{117} It is an interesting comparison to note that Chinese migrants were prosecuted for similar offences in Dunedin from as early as 1876, and with far more regularity and urgency. It was not until 1887 that the first report of Māori poachers being prosecuted occurred in Hawke’s Bay.\textsuperscript{118} The zeal of the Otago Acclimatisation Society’s rangers, as well as the concentration of Chinese migrants and relative scarcity of Māori in Otago could explain this disparity. More probable, however, is that Chinese in New Zealand had very few recognised rights, whereas even the most partisan settler recognised that the provisions of the Treaty of Waitangi and customary rights complicated the situation with regard to Māori. This speaks further to the xenophobia exhibited towards Chinese in Dunedin, referenced in Chapter Four. Across this period, there were significant numbers of Pākehā prosecuted for poaching but it appears that acclimatisation societies may have been reluctant to bring prosecutions against Māori.\textsuperscript{119}

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{Fig_34.jpg}
\caption{Fig. 34: Bringing rainbow trout to the kainga, 1905.\textsuperscript{120}}
\end{figure}

\textsuperscript{117} “The Trout Difficulty.”, \textit{Wairarapa Daily Times}, 14 January 1887, 2.
\textsuperscript{118} “Telegraphic.”, \textit{Hawke’s Bay Herald}, 30 April 1887.
\textsuperscript{119} Even in this period the matter would have been political, with acclimatisation societies preferring to adopt diplomatic strategies with iwi to ensure ongoing protection rather than prosecute every indiscretion.
Poaching prosecutions against Māori fundamentally changed in 1890 when the Christchurch case, discussed above, concluded that the Treaty of Waitangi conferred no right to fish for trout. This represented a watershed moment, as it gave the situation legal clarity and henceforth prosecutions against Māori became far more common. To assist in communicating the legal status of trout, the Hawke’s Bay Acclimatisation Society had its regulations translated into Māori in 1896. Although by the mid-1890s it is likely that most Māori were aware of the prohibition on taking trout without a licence, in many instances trout continued to be taken by unlicensed Māori anglers either because of necessity or an erroneous belief that customary fishing rights or rights granted under the Treaty of Waitangi overrode the requirement to purchase a licence. Writing of Lake Taupō, but equally applicable to Rotorua, McDowall stated:

…much of Lake Taupō was so remote and inaccessible, the trout population so huge and the pākehā population so small, that Māori communities around the lakes were able to exercise some control over access to the fishery as well as taking trout themselves with little restrictions…

Despite the existence of regulations prohibiting the unlicensed taking of trout, there were often no means by which to enforce them in remote parts of the country.

By the early 1900s, trout, particularly rainbow trout, were caught regularly by Māori around the country and came to form a staple food source for many iwi (see Figs. 33, 34 and 35). However, the motivations behind trout fishing differed for Māori and Pākehā. For Pākehā, although trout were consumed, it was first and foremost a sporting or recreational pursuit with a strong cultural lineage back to Britain. Whereas for Māori, in keeping with their traditions, the value of trout as food took primacy and there is little to suggest that fishing was viewed as a sporting pursuit until much later. Writing in 1926, Sir Āpirana Ngata claimed: ‘The Maori…may yet arrive and gain full honours in civilization by being able to handle a rod and tackle.’ Here Ngata was referring more to the sporting ideal than the actual method, as Māori had been catching trout on rod and reel for two decades at this point and had proven themselves extremely successful anglers. It is difficult to gauge the number of trout fishing licences taken out by Māori, but given the popularity of many of the fishing licences taken out by Māori, but given the popularity of many of the fishing

---

121 “Hawke’s Bay Acclimatisation Society.”, Hawke’s Bay Herald, 13 June 1896.
122 McDowall, Ikawai, 650.
123 To a certain extent this culture has endured, as to this day providing food remains a tenet of Māori fishing culture; Paul Meredith, “Te Hi Ika – Māori Fishing”, Te Ara – The Encyclopedia of New Zealand, [Accessed 13/10/17: https://teara.govt.nz/en/te-hi-ika-maori-fishing].
124 Ngata, New Zealand Parliamentary Debates, 290.
locations and the publicity some of the catches received, it is certain that a fair number of Māori were licensed anglers or else they would have been prosecuted for poaching. In 1906 Pākehā anglers observed the skill with which a ‘Maori lad’ at Ohau Channel caught 18 trout before breakfast on a fly and added a further 25 later that day. Similarly, the *Bay of Plenty Times* in 1909 reported: ‘The proudest man in the district this week has been a Maori, who secured a fine specimen [27lbs] of the rainbow trout to his rod and line in the river Kaituna…’

Despite the adoption of settler fishing technology, Florence Harsant, a Pākehā nurse and community leader with strong links to both Rotorua and Taupō iwi, was correct in stating that ‘fishing methods were judged more by their effectiveness than by the sporting challenge they offered.’ Although Māori adopted the use of rod and reel, this was because of the regulatory requirements placed upon them by Pākehā rather than any sporting pleasure. Where and when it was permissible to net fish this appears the preferred method, confirming that trout fishing remained distinctly a means of

---

125 A number of these anglers may have received one of the free licences granted to Te Arawa in the Rotorua Lakes region.
126 “Trout Fishing.”, *New Zealand Herald*, 8 November 1906, 6
127 “A Big Fish.”, *Bay of Plenty Times*, 13 January 1909.
generating food rather than a sporting pursuit. The only legal means to take trout today is by rod and reel, but there is still a strong Māori angling community in both Taupō and Rotorua and trout continue to have enduring significance in these regions.

Conclusion
This brief examination of the early relationship between trout and Māori has, more than anything else, demonstrated the intersection of two cultures with fundamentally different ideologies with regard to both fishing and resource management. The relationship paints a stark picture in which British settlers introduced a species from their homeland and, without consultation with Māori or thought for the impact on indigenous species, distributed them throughout New Zealand’s rivers and lakes. Trout subsequently displaced customary food sources, and yet were protected from consumption by Māori under colonial legislation resulting in a net loss of legally accessible food in many regions. There is no doubt that, both legally and otherwise, trout came to form a food source for Māori; however, this was limited by the regulations imposed upon fishing for them. These points should not be shied away from, but rather be allowed to inform our understanding of the introduction of trout and their ongoing position in New Zealand’s environment. What is more, such actions are not unique to New Zealand and similar patterns can be seen in Australia, the United States and Canada, which serves to further emphasise the concept of the introduction of trout as a fundamental tenet of British colonisation. To conclude, it is valuable to consider two final questions. Firstly, whether Māori would want trout as a part of New Zealand’s environment and, secondly, whether the introduction of trout should be viewed as a part of the alienation of Māori from their lands and resources.

The question of whether Māori would want trout introduced to New Zealand, with full understanding of their regulatory protection and the ecological impacts they would have, is not simple, nor does it have any definitive answer. There is strong evidence of Māori holding positive attitudes towards trout both prior to and upon their introduction; however, this is predicated upon a belief that they would be able to

---

harvest them in conjunction with an inability to predict their ecological impact. Nor was this positivity unanimous, with instances of opposition to the introduction expressed both contemporaneously and retrospectively. Māori could not have anticipated the extent of the displacement of native fish by trout, but this should also be viewed in the context of an on-going transition away from traditional food sources as a result of the introduction of Pākehā crops and an increasingly urbanised Māori population. As McDowall notes: ‘it would be simplistic and wrong to assume that Māori were wedded to a diet based entirely on traditional food types but, that aside, they probably had little choice but to adapt.’ In my view there is a real case to be made that if the trout fishery was truly accessible, and Māori were able to integrate trout into their traditional practices, they would have accepted the presence of trout. The uptake of trout fishing, and the requests for the ability to legally take trout in Rotorua and Taupō speak to this. However, as David Young observes, the belief that game laws in New Zealand should exist for everyone did not extend to Māori. It was the inability to utilise this resource without paying prohibitive fees, rather than the trout themselves, that was the primary source of the resentment that ensued. As it eventuated, with the displacement of indigenous food resources, the inaccessibility of trout and the associated abrogation of rights, there are strong grounds for Māori opposition to the introduction of trout. Ultimately, however, as McDowall rightly concludes, the question of whether or not Māori would, with the benefit of hindsight, approve of the introduction of trout to New Zealand is one for Māori alone to answer.

Whether the introduction of trout should be viewed as part of the alienation of Māori from their lands and resources is a similarly difficult question, and not one I propose to answer in any concrete sense. If we accept that Māori were alienated from their lands and resources in the wake of British colonisation, the question is simply what role, if any, did the introduction of trout play in this. Trout are an introduced species brought to New Zealand after the Treaty of Waitangi and accordingly there are no

131 Some iwi expressed concern as to the prospective ecological impacts, but these cases were isolated and on a whole there is nothing to suggest that Māori, generally, understood that introducing trout would correlate to the displacement of indigenous species.
132 Pākehā, despite an ingrained belief in the superiority of British species, also could not comprehend the entire impact that trout were to have on New Zealand’s freshwater environment.
133 McDowall, Ikawai, 640.
customary rights or rights granted under the Treaty to fish for trout, as confirmed in *Taranaki Fish and Game Council v McRitchie*.\(^{135}\) As such, this situation can be contrasted with the protection granted to native birds such as kereru (*Hemiphaga novaseelandiae*) under the *Animals Protection and Game Act 1921*. Unlike trout, kereru were a native species that had been utilised as a food source by Māori for centuries and their protection represents the direct removal of a customary food source.\(^{136}\) There is no doubt that trout displaced native species, diminishing customary food sources in the process, and that the unsolicited introduction represented an incursion on both the mana and kaitiakitanga of Māori. This in and of itself substantiates a case for alienation to a certain extent, but to argue for the impact of trout alone upon Māori resources and lands is to remove the introduction from its colonial context. If the British colonial context is added in it allows historians to take account of the many peripheral elements that are partially, but not centrally, associated with the introduction of trout and that had a more significant alienating impact, such as changing land use and the loss of riparian rights.\(^{137}\) When constructed in this fashion, trout must be seen as a part of the colonial machine that alienated Māori from their waterways and traditional food sources.\(^{138}\)

\(^{135}\) *Taranaki Fish and Game Council v McRitchie*, High Court, Wellington, AP No. 19/97, 14 May 1998, Neazor & Greig JJ.

\(^{136}\) Park, *Effective Exclusion*: 429.

\(^{137}\) That this should be viewed as a part of a wider movement is further attested to by the similar conflicts regarding the destruction of native species that arose surrounding the control and manipulation of waterways to facilitate settler pastoralism and agriculture; Ben White, *Inland Waterways: Lakes*, (Wellington: Waitangi Tribunal, 1998), 58.

\(^{138}\) It is probable that the final word on Māori freshwater fishing rights and the relationship with trout has not been had, and this is a topic that I envisage will be revisited in political circles in the coming years.
Chapter Eight: The Prioritisation of Introduced Species

Introduction
The nineteenth-century saw the widespread introduction of foreign species to New Zealand in what I contend was an attempt to recreate aspects of Britain and fill perceived ecological omissions in New Zealand’s native flora and fauna for economic and sporting reasons. Once introduced, many of these species were carefully managed and protected, often at the expense of native species, to ensure their successful establishment in New Zealand. Various environmental histories in New Zealand have commented on the status of introduced flora and fauna as pests, but less has been written on the perception of early settlers that it was the indigenous, not the introduced, that were seen as pests.¹ This chapter seeks to demonstrate that introduced species, such as brown trout, were prioritised over native species in the nineteenth-century and early twentieth-century through indiscriminate introduction, legislation, and the intentional destruction of native species. Establishing this prioritisation will further reinforce the intrinsic link between the introduction of trout and the British colonisation of New Zealand. It will also provide a point of contrast from which to consider the environmental philosophic transition that has taken place in New Zealand and resulted in the current societal and environmental value attributed to native species.

In order to demonstrate the prioritisation of introduced species, first the perception amongst colonists regarding the superiority of British species will be set out along with the reasons that informed this perception. By way of contrast, colonial views of New Zealand’s native species will also be considered. These different attitudes will provide the philosophical grounding for the consideration of the subsequent prioritisation that took place. Next, the actual prioritisation of introduced over native species will be examined, first by considering legislative factors that either overtly or implicitly prioritised introduced species. Following this, the intentional destruction of native species by individual settlers and government action will be examined, with a

particular focus on the destruction of shags and eels to aid in the successful establishment of trout in New Zealand. Subsequently, the systematic nature by which colonisation and the improvement mentality of settlers prioritised introduced species will be considered. Stemming from the preceding sections, a case will be made that the establishment of introduced species was prioritised over not just native species but native people too. To conclude, changing attitudes on introduced species will be outlined from their reclassification from protected to pest, to what their future is in New Zealand’s environment.

**The superiority of British species**

Underpinning the prioritisation of introduced species was, I argue, a fundamental belief in the superiority of British species compared with New Zealand’s indigenous flora and fauna. This belief was threefold: firstly, that British species were ecologically superior; secondly, that they offered superior sport; and thirdly, that they were of superior utility. Belief in ecological superiority is centrally rooted in Charles Darwin’s law of natural selection as well as in the pre-existing perception of New Zealand’s indigenous species, and people, as being primitive (see Fig. 36). Published in 1859, Darwin’s *On the Origin of Species* fundamentally changed the way humanity thought about the processes of the natural world, and its influence on both the introduction of foreign species to New Zealand and their subsequent prioritisation is significant.

Darwin’s theory was based on the premise that the process of evolution could be explained by natural selection; that those species better adapted to an environment would succeed and eventually outcompete and displace weaker species that occupied the same ecological niche. Much of his research forms the basis for current scientific thought. Yet woven through Darwin’s work is a subtler Eurocentric belief that European species and peoples were inherently stronger and more likely to survive

---

2 This belief applied more broadly to the superiority of European species over their New World equivalents; Alfred Crosby, *Ecological Imperialism: The Biological Expansion of Europe, 900-1900*, 2nd ed. (Cambridge: Cambridge University Press, 2004).

3 The broader philosophical context, as well as greater detail on the significance of Darwinism, is addressed in Chapter One; Thomas Dunlap, *Nature and the English Diaspora: Environment and History in the United States, Canada, Australia and New Zealand*, (Cambridge: Cambridge University Press, 1999), 49.

than their New World equivalents; in essence, that they were genetically predetermined to succeed upon introduction to foreign lands. As Australian environmental historian Ian Tyrrell states: ‘The native fauna and flora in the New Worlds were regarded by these Eurocentric botanists as inferior.’ Darwin, having observed the rate at which introduced species established themselves in New Zealand at the expense of indigenous flora and fauna wrote: ‘the productions [living organisms] of Great Britain stand much higher in the scale than those of New Zealand.’ Darwin was subsequently proven wrong by the likes of New Zealand naturalist G. M. Thomson with regard to his belief in the inevitability of the success of Old World species in these new environments; however, that was not until the early twentieth-century. The ultimate manifestation of this belief was that it was a natural progression for indigenous species, and even indigenous peoples, to fade away upon the introduction of ‘superior’ species. Thomas Dunlap explained that nineteenth-century colonists believed: ‘They [indigenous flora and fauna] would fall before the invaders, just as the white man would inevitably displace the Aborigine and the Maori.’ Similarly, New Zealand ecologist Geoff Park argued that Darwinism: ‘had Walter Buller believing in the “material advancement” and superiority of his own British culture, and that the birds vanishing around him were, like Māori, doomed by inferior genes…’

The impact of Darwinism in New Zealand is evident but, as Peter Holland cautions: ‘Thinking of that kind was more received truth than observationally justified opinion…’ While Holland’s view is in keeping with the assertions of subsequent

---

naturalists like Thomson, John Buchanan, Leonard Cockayne and Herbert Guthrie-Smith, the comment is more significant in referring to the demise of native species at the hands of introduced species as a ‘received truth’ in mid-nineteenth-century settler society. Holland continues: ‘…the rudiments of ecological, environmental and evolutionary thinking were known as early as the 1860s in New Zealand, and they influenced the nature of environmental transformation…’\(^\text{13}\) This is not to suggest that all British settlers in New Zealand possessed a comprehensive understanding of Darwinism; however, the implications of Darwin’s research permeated nineteenth-century British society to such an extent that those settlers with a naturalist bent, such as those involved in the acclimatisation movement, would have had at least a superficial familiarity with it.\(^\text{14}\) The impact of Darwinism in New Zealand in the latter half of the nineteenth-century can also be seen in the views of settlers. Writing about the way in which introduced aquatic plants were choking the Avon, John Armstrong stated: ‘The indigenous Flora seems to have arrived at a period of its existence, when it has no longer strength to resist against the invading races…’\(^\text{15}\) Similarly, the \textit{New Zealand Herald} republished an article from British magazine \textit{The Field}, which stated: “The substitution of real game for these native birds is not less desirable, in this age of progress, than the replacement of a semi-barbarous aboriginal race [Māori] by the offshoot of a highly civilized nation.”\(^\text{16}\)

The belief that species such as trout, deer and pheasants, to name just a few, were superior species to those which occurred naturally within New Zealand provided settlers with a moral and philosophic justification to prioritise these species above their native equivalents.\(^\text{17}\) As Park explains: ‘…it [Darwinism] was used to defend the spread of British culture.’\(^\text{18}\) The further implication of this is that, if we accept that

\(^{13}\) Holland, \textit{Home in the Howling Wilderness}, 107.


\(^{15}\) John Armstrong, quoted in David Young, \textit{Our Islands, Our Selves: A History of Conservation in New Zealand}, (Dunedin: Otago University Press, 2004), 63-64.

\(^{16}\) This quotation also provides an important link between the belief in the superiority of British species and the notion of progress or improvement. See Chapter One for greater discussion on this; “Sport at the Antipodes.”, \textit{New Zealand Herald}, 26 September 1872, 3.

\(^{17}\) It is an interesting aside to consider why, if acclimatisers believed in the inevitability of the colonisation of New Zealand rivers by brown trout, they felt the need to destroy both shags and eels to assure its success.

\(^{18}\) Park, \textit{Ngā Urhora}, 172.
British settlers responsible for introducing animals and plants to New Zealand had at least a passing familiarity with Darwinism and hence an awareness that the demise of indigenous species was a probable or inevitable consequence of introducing British species, then the simple act of introducing these species represents the greatest prioritisation over indigenous species. It is true that settlers lacked a nuanced understanding of the ecological implications of their introductions, and yet natural selection in conjunction with a belief in the superiority of British species, should have led them a long way towards being able to predict the displacement of native species that occurred following the introduction of trout. It is an interesting observation to note just how fallacious the belief in the universal superiority of British species was in light of the fact that today New Zealand flatworms are responsible for the decimation of British earthworms and New Zealand mudsnails outcompete local equivalents.

![Fig. 36: Charles Darwin at approximately the time he visited New Zealand, c.1835](image)

19 That settlers, and Darwin himself, were ultimately proven to be incorrect in their estimations of the absolute superiority of British species in the broader sense does not diminish their belief in it at the time of introducing foreign species to New Zealand. In numerous instances, including with regard to trout, they were correct in that British species did displace native species. Where they were incorrect, however, was with regard to the notion that these species would entirely supersede native species.


Beyond a belief in the evolutionary superiority of introduced species, British settlers also thought their traditional game species superior to species indigenous to New Zealand for sporting pursuits. This perspective is multi-faceted in that it reflects the absence of relatable sporting species in New Zealand, as well as the desire amongst many settlers to attain access to sporting opportunities not available to them in Britain. As mentioned in greater detail in Chapter One, settlers observed a notable absence of relatable or useful species more generally. It is impossible not to observe the slight irony in the belief amongst settlers that New Zealand’s environment lacked valuable or useful species, as many of New Zealand’s earliest settlers first emigrated to target the seals and whales that were found along the coastline in abundance, as well as the flax found inland. However, inland settlers did find a foreign environment with little they could relate to, particularly in terms of animal or fish species. The lack of familiarity is, to a certain extent, explained by Holland in stating: ‘A core principal of biogeography is that widely separated parts of the world are occupied by different ensembles of plant and animal species…’ Environmental historian, David Young suggests that: ‘The settlers’ lack of identification with the flora and fauna is almost certainly a reason why they were so blasé about destroying so much of New Zealand’s forest and its creatures.’ This indicates a connection between the unrelatable nature of New Zealand’s indigenous species and the subsequent prioritisation of those relatable and familiar introduced species. The connection is further supported by the diary of John Wither, a farmer from Lake Wakatipu in the nineteenth-century, which mentioned just four native animals: eels, shags, kea, and a native fly. Three of these four species were viewed as serious threats to introduced species, as expounded upon subsequently in this chapter, and it is clear that this is the context in which both shags and kea were mentioned. With the exception of the fly, Wither’s sole reference to native species on his station was in fact in relation to introduced species.

22 This is discussed in greater detail at several points throughout the thesis – see Chapters One and Seven particularly.
24 Holland, Home in the Howling Wilderness, 193.
25 Young, Our Islands, Our Selves, 63.
26 Holland, Home in the Howling Wilderness, 96
27 It is unclear in what capacity eels were mentioned, however as Wither reported receiving a bounty for shooting shags to protect trout it is highly possible that his reference to eels was in relation to trout too; Ibid.
Whilst the absence of familiar fish and game was felt in New Zealand generally, with the exception of coastal and oceanic species, it was particularly keenly felt with regard to freshwater fishing opportunities.\(^28\) The following quote from Charles Hursthouse, a wealthy settler accustomed to the sporting opportunities of Britain’s elite, is just one of dozens exclaiming the lack of sporting species: ‘Just as New Zealand’s forests are destitute of game, so are its rivers destitute of fish…they boast no single fish worth the anglers’ catching…’\(^29\) In the literal sense, Hursthouse is incorrect, as pointed out in Chapter Seven regarding the plethora of freshwater species in New Zealand. This, however, does not detract from the fact that settlers found no sporting species they considered to be the equal of their familiar sporting pursuits. This adds another element to the belief in the superiority of British species amongst settlers during the height of the acclimatisation movement and provides yet further grounds to prioritise those sporting species subsequently introduced over native species that might predate upon them.

At the core of the environmental transformation of New Zealand is a brief, but significant point: settlers saw greater utility in British species than in those indigenous species they discovered upon their arrival. Settlers, and particularly those early individuals laying the foundations of New Zealand’s colonial society, were living in a period and an environment where their most fundamental concern was not sport but shelter, security (both financial and physical) and food.\(^30\) In essence, their greatest ecological interest lay in the utility of flora or fauna. To this end, settlers did not believe New Zealand’s indigenous species were of sufficient utility to either sustain them or satisfy the aspiration and desire for improvement intrinsic to British migration. This view is undeniably based upon a British frame of reference, as Māori existence in New Zealand establishes that all necessities could in fact be derived from indigenous species.\(^31\) However, as noted at multiple points throughout this thesis, New Zealand had few species relatable to British settlers, and specifically a complete

\(^28\) Not all settlers were of this mindsight with botanist William Colenso, who displayed a keen interest in the study of New Zealand’s indigenous flora, an obvious outlier; Jim Endersby, “From Having No Herbarium: Local Knowledge Versus Metropolitan Expertise.”, *Pacific Science* 55, no. 4, (2001).
\(^30\) Shelter, at the least, was widely available in the form of the plenitude of native timbers and the same timber also provided industry in subsequent years.
\(^31\) In conjunction with one or two species Māori brought with them.
absence of land mammals that could provide dietary sustenance and a source of income for settlers through the sale of meat, milk or fur. Stating that British settlers felt the need to supplement the resources naturally on offer is not to suppose that British settlers did not adapt to the novel environment they found themselves in, Holland’s work attests to the ways in which settlers were forced to adapt their practices to New Zealand’s weather and unique conditions. Similarly, environmental historian Tom Brooking observed a deep pragmatism in the approach of Scottish settlers in Otago, most noticeably with regard to the adoption of Māori agricultural techniques.

British settlers were though unwilling to entirely adapt to their new environment, instead adapting aspects of their new environment to their needs. As Star and Lochhead observe: ‘While a regard for native species was increasing [particularly in the late-nineteenth and early-twentieth-centuries], few of the requirements of settler society seemed likely to be met with them. Basic need favoured the exotic…’ On this basis, settlers brought agricultural animals, such as cows and sheep, to fulfill dietary and economic requirements, along with British pasture plants to sustain these animals. Such introductions were made for reasons of strict utility: these species provided critical resources to a developing society and came to form the backbone of the settler economy. Thus, when considering the introductions of foreign species to New Zealand, particularly agricultural animals, and their subsequent prioritisation over native species, it is important to acknowledge the fundamental motivations of necessity and utility.

**Prioritisation through legislation**

---


34 This is unsurprising in light of the fact that for most settlers moving to New Zealand carried with it an aspirational element, and the realization of this aspiration was rooted in British tradition, culture and understanding.


37 That it was a perceived, and not literal, necessity is inconsequential.
Legislatively, there is a significant disparity in the nineteenth-century between the protection granted to introduced species as compared with native species and, where native species were protected through legislation, it was often long after their introduced counterparts. Writing about this disparity, Young states: ‘Before there were any serious attempts to protect the native species, nineteenth-century New Zealand protected game introduced for sport.’ The original piece of protective legislation was the *Protection of Certain Animals Act 1861*, which provided regulatory means for the protection of a range of imported British animals with no mention of any native species. Most starkly, however, it stated: ‘No Wild Duck or Wild Goose of any imported species whatever shall be hunted taken or killed except during the months of March April May June July or August in any year.’ The implication of this is that, indigenous ducks or geese, including the whio (*Hymenolaimus malacorhynchos*) that today graces our ten dollar bill, were not subject to any legislative protection and could be hunted freely at any time. This was altered in the *Protection of Certain Animals Act 1865*, wherein indigenous ducks and pigeons were included in the list of protected species.

The following year, however, the *Protection of Certain Animals Amendment Act 1866* stipulated that these birds could be hunted at certain times of the year and upon payment of a £5 licence fee. However, as Kate Hunter explains: ‘This licence fee was revoked after only one year...when the distinction was made between introduced game...and native game, which was essentially defined as “free.”’ Under the *Protection of Animals Act 1867* ‘native game’ was still subject to seasonal limitations, although no licence fee was charged. This point is slightly more nuanced than it first appears, as kereru, and other native species, were a customary food source for Māori and it was unclear whether the limitations imposed by the 1866 Act contravened aspects of the Treaty of Waitangi. Similarly, as was the case with the licensing system for trout, those responsible for introducing imported game were likely seeking to recoup upon their costs, which might explain the lack of a licence fee for native game.

---

38 Young, *Our Islands, Our Selves*, 11.
39 Protection of Certain Animals Act 1861, IV.
40 Protection of Certain Animals Act 1865, IV.
41 Protection of Certain Animals Amendment Act 1866, IV.
Despite these points, it is clear that there was greater legislative protection afforded to introduced birds and game than was afforded to native species.\footnote{This is particularly true prior to 1906, when kiwi, kakapo and numerous other native birds could be hunted during the game season. In 1906, 138 species of native birds were listed in a New Zealand Gazette as absolutely protected by virtue of the Governor’s power to protect indigenous birds under the Animals Protection Act 1880; Colin Miskelly, “Legal protection of New Zealand’s indigenous fauna – an historical review”, Tuhinga 25, no. 1 (2014): 25.}

Prior to the introduction of trout or salmon to New Zealand, preparations were underway to legislate for their protection. When the \textit{Salmon and Trout Act 1867} was passed into law on 11 October 1867, New Zealand possessed just one live trout, hatched one day earlier.\footnote{\textit{Salmon and Trout Act 1867}.} This act ‘enables the Governor to make regulations for their [salmon and trout] protection, and to impose penalties for the breach of them, and authorizes the apprehension of offenders.’\footnote{“Further Despatches From His Excellency the Governor of New Zealand to the Right Hon. The Secretary of State for the Colonies”, \textit{Appendices to the Journals of the House of Representatives}, Session 1 A-01 (1868), 16.} The pre-emptively protectionist approach with trout and salmon can be contrasted strongly with the total lack of legislation in place for indigenous freshwater species. With the exception of the \textit{Oyster Fisheries Act 1866}, which was primarily enacted to provide for the commercial management of the oyster fishery, until the \textit{Fish Protection Act 1877} there existed no legislation protecting or regulating New Zealand’s fisheries aside from salmon and trout. Furthermore, the scope of this protective legislation was broad and far-reaching: along with vesting general regulatory power with the Governor it made specific provision ‘for prohibiting the use of nets or other engines instruments or devices for taking fish in any river or stream in which young salmon salmon [sp] fry or spawn or young trout dry or spawn is placed or deposited…’\footnote{\textit{Salmon and Trout Act 1867}, s2.} Whilst this did not impact native species directly, it had the potential to severely limit access to customary fisheries for Māori. It should also be noted that the \textit{Salmon and Trout Act} provided certain environmental protection, such as permitting fines to be levied against anyone polluting a trout stream, for trout and salmon, whereas what protection native species received tended to be in the form of limitations on hunting or fishing.\footnote{Ibid.} By the turn of the century, a number of native birds were protected, resulting in a ban on hunting kererū and yet these species lacked the environmental protection that the \textit{Salmon and
Trout Act gave to imported fish. As Young notes: ‘From 1901 kereru, pukeko and kaka received absolute protection over Maori protests that deforestation, not Maori hunting, was the source of the problem.’ These birds were protected in the sense that they could not be hunted, but they were subject to rampant environmental destruction and a lack of legislative recourse against this.

The destruction of native species to protect introduced species

The prioritisations outlined so far have been implicit, rather than explicit, resulting largely from positive steps taken in favour of introduced species as opposed to destructive steps taken towards native species. However, there are certain native species that were intentionally destroyed to facilitate the successful establishment of introduced species and, as such, these instances represent the most overt prioritisation over native species. The motivation for this destruction was invariably that the native species was a potential or proven predator of the species settlers wanted to introduce. As a result, it could either prevent the introduced species from gaining a foothold or cause sufficient economic harm to warrant action to be taken. The most striking example, from a present day perspective, was a belief amongst New Zealand shepherds as to the ability of the kea (Nestor notabilis) to kill sheep: ‘It was supposed to swoop down, fix itself on the back of a sheep such that the sheep could not defend itself, and then peck the poor animal to death!’ Farmers suggested the number of sheep lost from kea to be many thousand, and one even reported: ‘The most striking audacity was an attack of a kea on a mare in foal, belonging to Mr Campbell, of Wanaka.’ From 1871 a reward of 1s was offered for the beaks of a kea, with one shepherd killing 40 by lacing the carcass of a sheep with poison. Young even notes that: ‘The kea gun, a .410 shotgun, was designed specifically to allow the birds to be shot from the saddle.’ Initially, the reward scheme was facilitated by runholders seeking to protect their investment, but it subsequently became part of a governmental

---

48 The general trend towards valuing and protecting native species will be addressed in detail later in this chapter.
49 Young, Our Islands, Our Selves, 103.
50 In contrast with the environmental protections afforded to salmon and trout.
51 Crosby, Ecological Imperialism, 254.
52 ‘The Kea, or Sheep Killer.’, The Colonist, 10 August 1883, supplement.
53 Ibid.
54 Young, Our Islands, Our Selves, 134.
predator prevention programme that resulted in the destruction of large numbers of kea.\textsuperscript{55}

![Fig. 37: Kea hunting, c.1930s\textsuperscript{56}]

The belief in the predatory instincts of kea on sheep was not ubiquitous, with some shepherds stating they had not witnessed, nor did they believe, that kea took sheep.\textsuperscript{57} Crosby contended that: ‘If such happened [a kea pecking a sheep to death] once, it was remarkable; if twice, fantastic.’\textsuperscript{58} Farm diaries, like that of John Wither, note numerous instances of the deaths of sheep being attributed to kea but there are almost no eye-witness accounts of the attacks themselves.\textsuperscript{59} Accordingly, the actual impact of kea on sheep was likely blown vastly out of proportion, and yet countless kea were destroyed to preserve sheep stocks until they were eventually protected in 1986 (see

\textsuperscript{55} Young, \textit{Our Islands, Our Selves}, 145.
\textsuperscript{56} Edgar Richard Williams, “An unidentified man sitting on a boulder, holding a dead native parrot, gun resting on his lap and smoking a pipe, probably West Coast Region,” National Library of New Zealand, [Accessed 6 December 2017: https://natlib.govt.nz/records/32049827].
\textsuperscript{58} As anyone who has driven the mountain passes of New Zealand’s South Island will attest, a kea’s capacity for destruction is impressive although supposing it to consume mature sheep may be a step too far; Crosby, \textit{Ecological Imperialism}, 254;
\textsuperscript{59} Holland, \textit{Home in the Howling Wilderness}, 96.
Fig. 37).\textsuperscript{60} Today, like the once freely hunted whio, they too grace New Zealand’s ten dollar note.

Harrier hawks (\textit{Circus approximans}), kahu to Māori, faced a similar fate, although it seems there was a little more veracity to the claims of their capacity to kill sheep. It is unclear at exactly what point the destruction of hawks to protect sheep began; however, by 1868 the Auckland Acclimatisation Society was paying a reward of 1s per hawk killed within a 20 mile radius of Auckland.\textsuperscript{61} Similarly, in 1871, a report was made of ‘upwards of a thousand hawks per annum’ being destroyed on the Cheviot Hills Station in Canterbury and that ‘the practice of poisoning hawks in the lambing season has now become very general…’\textsuperscript{62} The mania for destroying hawks spread easily through the vivid descriptions of their attacks on sheep: ‘I found a hogget down a week or two back, and saw a hawk leave it; its eye was gnawed in a horrible manner and half out of the socket.’\textsuperscript{63} Sheep, and particularly lambs, were not the only introduced species observed to fall victim to hawks, with several mentions made of the capacity of hawks to destroy hares and even of one instance where three hawks ganged up on a turkey.\textsuperscript{64} In 1875 the Canterbury Acclimatisation Society was also offering a 1s reward for the destruction of hawks and, by the mid-1880s, and in many cases much earlier, it was joined by a wide range of acclimatisation societies around the country in paying out bounties for the heads of hawks.\textsuperscript{65} Despite this practice, in 1885 the president of the Waikouaiti County Council suggested that ‘at the present time hawks were doing more good than harm…’\textsuperscript{66} This was in the midst of the first New Zealand rabbit plague, and the council president’s statement was in regard to the fact that hawks fed heavily on rabbits (\textit{Oryctolagus cuniculus}).\textsuperscript{67}

\begin{thebibliography}{9}
\bibitem{60} Young, \textit{Our Islands, Our Selves}, 145.
\bibitem{61} “Acclimatisation Society.”, \textit{Daily Southern Cross}, 4 August 1868, 4.
\bibitem{63} “Hawks and Lambs.”, \textit{Fielding Star}, 7 August 1901, 3.
\bibitem{64} ibid; “Destruction of Hawks.”, \textit{Lyttelton Times}, 14 May 1884, 5.
\bibitem{65} “Acclimatisation Society.”, \textit{Lyttelton Times}, 4 August 1875, 1; “Acclimatisation Society.”, \textit{Hawkes Bay Herald}, 10 June 1879, 3; “Hawera Acclimatisation Society.”, \textit{Hawera and Normanby Star}, 2 April 1886, 2.
\bibitem{66} Untitled, \textit{North Otago Times}, 28 May 1885, 2.
\end{thebibliography}
We are thus confronted with the curious situation wherein one faction favoured hawks because they predated upon an introduced species (rabbits) and another faction sought the destruction of hawks because they predated upon an introduced species (sheep), attesting to the perplexities associated with the introduction of foreign species to New Zealand and the attempts made to manage them.68 A similar argument could have been made with regard to shags, which were occasionally found with small eels in their stomachs.69 The enduring view of hawks in New Zealand was of their propensity to peck out the eyes of lambs and they continued to be destroyed freely until 1986 when they were partially protected. To this day, however, landowners can still kill hawks that are threatening livestock or domestic animals.70

Trout, and other introduced fish, were subject to different threats than sheep and yet the process for dealing with these threats was largely the same. Two main predators were believed to threaten the successful establishment of trout in New Zealand: shags, particularly the black shag (Phalacrocorax carbo), and the eel.71 Like John Milton’s Satan who took the form of a cormorant sat atop the tree of life, shags (also known as cormorants) were the ultimate evil to acclimatisers seeking to introduce trout to New Zealand.72 Such was the rancour with which the shag was viewed that one commentator described it as: ‘without doubt the dirtiest, lousiest and most stinking creature we have in this country. So rank and full of worms and parasites is his carcass that the dogs or wild pigs would not eat it.’73 That the shag was despised despite the fact that it is one of relatively few species indigenous to both Britain and New Zealand indicates that the belief in the superiority of British species was not without its limitations. Familiarity meant that settlers were aware of the shag’s feeding behaviour and knew that it fed on small fish such as young trout. McDowall notes one further aspect of the feeding pattern of shags, particularly as compared to eels: they were visible and anglers could actually witness shags diving out of the air.

68 This matter was further confused by the introduction of mustelids (stoats, ferrets and weasels) to control the rabbit population. Once the damage they did to native birds was discovered a similar debate was entered into whether the damage to native birds was greater than their value in controlling rabbits; McDowall, Gamekeepers for the Nation, 134.

69 “Local and General News.”, New Zealand Herald, 17 April 1929, 10.


71 In actuality it is likely that neither species had a significant ecological impact upon trout populations such that would prevent their establishment in New Zealand.


73 Quoted in McDowall, Gamekeepers for the Nation, 125.
and plucking trout from the stream.\textsuperscript{74} Almost from the moment trout were introduced, plans were afoot to prevent their predation by shags. In 1870, the \textit{Press} reported approvingly that: ‘… in order to protect the trout in the River Avon the Provincial Secretary be requested to authorise the police to shoot or otherwise destroy all shags within the city of Christchurch.’\textsuperscript{75} It is unclear exactly what authorisation the \textit{Press} was seeking, as shags were not subject to any legal protection in this period, however the sentiment of the suggestion is clear. The following year, 1871, the Canterbury Acclimatisation Society offered a reward for the destruction of shags stating: ‘It is necessary, if we desire to successfully stock the ponds and rivers of the province with trout, that this bird should be got rid of.’\textsuperscript{76}

With regard to hawks and kea there was a clear attempt to manage and minimise their presence in specific localities, but there was no suggestion of entirely ridding the country of either bird as can be inferred from the Canterbury society’s comment about shags (see Fig. 38). It is probable that this was simply an overstatement, but it does open the door to the possibility that the Canterbury society wished to entirely rid their

\textsuperscript{74} McDowall, \textit{Gamekeepers for the Nation}, 124.
region of a native species. Otago followed suit in 1878, offering a 1s bounty per shag, although it is clear that shags were killed in the Otago region from a far earlier date. Overall, there is a fairly strict correlation between the release, and particularly the establishment, of trout in a locality and the timing of the assault on shags. Both Otago and Canterbury were destroying shags by the early 1870s, Wellington by the early 1880s, whereas Auckland did not commence its pogrom until 1903 (see Fig. 39).

Whilst most bounties for shags were paid by local acclimatisation societies, there were specific instances where these bounties were subsidised by government departments. As McDowall notes: ‘Hawke’s Bay Society records show that in 1914 the Minister of Marine approved payment of a £ for £ subsidy of shags, to a maximum of £75.’ Young also observes that: ‘The government was complicit in this by sanctioning acclimatisation society eradication campaigns, and through its sponsorship of the same work by its Wildlife field officers.’ Governmental involvement with the management of shags did not reach the same level as with keas and hawks, but it is philosophically significant as it means that these policies were not merely instigated by a group of enthusiasts seeking to protect their charges but that they were in keeping with broader national policy on pest management.

McDowall makes an important point in observing that: ‘At the outset the societies seem to have been totally undiscriminating about which of the several species of shag were the chief culprits…’ Colin Miskelle adds that all species of shag were ‘explicitly marked for exclusion from a draft schedule of species to receive absolute protection’ for the reason that they ‘prey on fish (trout).’ This lack of distinction between related but unique species speaks to the disinterest of settlers in native species that were not useful to them, as lump categorisations such as this were not uncommon. Subsequent study in the 1910s and 1920s demonstrated that only the black shag preyed on trout in any material amount, and much of the destruction of the

80 McDowall, Gamekeepers for the Nation, 126.
81 Young, Our Islands, Our Selvses, 145.
82 McDowall, Gamekeepers for the Nation, 124.
83 Miskelly, “Legal protection of New Zealand’s indigenous fauna – an historical review”, 44.
previous 50 years had, out of ignorance and indifference, been rendered on species that did not even prey on trout.\textsuperscript{84} The effects of these studies were evident by the 1930s when the Auckland Acclimatisation Society recommended the protection of most coastal species of shag stating: ‘The chief offender was the black shag, which was capable of swallowing trout to 2lb in weight. This class of shag is an outlaw…’\textsuperscript{85} This reflects the modern position, where black shags can still be legally killed if they are interfering with crops, such as a commercial fish farm, but all other species of shag have full legal protection.\textsuperscript{86}

The only other animal to engender the animosity reserved for shags by those introducing trout to New Zealand was the eel. The species of eels present in New Zealand differ from those found in Britain, although it is clear both predate on trout. As a result of this, as brown trout were being introduced to New Zealand,

\textsuperscript{84} Similarly no distinction was made between the longfin and shortfin eel, although in this case it is more likely that the feeding patterns of the two main eel species were alike.

\textsuperscript{85} “Protection for Shags.”, \textit{Auckland Star}, 14 November, 1930, 10.


\textbf{Fig. 39: Shag hunting at Shag Cove, Pelorus Sound, 1906}\textsuperscript{87}
acclimatisers were being warned by British pisciculturalists of the perils of eels based on their own experience in Britain: “Put a grating over the entrance of the water from the river to the hatching boxes, otherwise the eels will come in and destroy all the fish.” Eels were also the suspected culprits in the loss of the trout brought to Canterbury by Johnson in 1867: ‘The eels in the lower ponds would have most probably eaten them up.’ Despite this, acclimatisation societies were slower to take widespread action with regard to eels. This is partially explained by the fact that unlike shags, eels were less frequently witnessed taking trout. A member of the Wellington Acclimatisation Society commented on this: ‘I watched an eel take six trout in a few minutes. If an eel can take six trout while you are looking at him, how many can he take while you are not looking at him?’

Again, Canterbury appears to have led the charge, with both the Press and the Star calling for eels to be netted, speared or trapped in 1872. Johnson even imported galvanised eel pots from England in order to address this threat. Yet there is relatively little evidence of any systematic attempt to cull eels until 1889, when the Otago Acclimatisation Society, in conjunction with the Otago Anglers Association, offered prizes for the heaviest take in eels and provided eel traps free of charge for that purpose. This can be contrasted with shags, where killing commenced almost the moment trout were introduced to these islands and bounties were offered shortly thereafter. It is possible that there was a greater interest in killing shags because it presented a sporting opportunity, as suggested by the Star in reporting: ‘The two sportsmen, lying in ambush, were enabled in one day to destroy no less than 134 adult birds, male and female.’ As a result of the increased attention given to eels in Otago over a six-month period in 1889, 1,880 eels were taken from the Waipahi Stream.

It was not until early in the twentieth-century that the campaign against eels began to gain momentum, with many societies offering bounties paid out by the pound: Nelson paid one shilling per pound in 1903 and Canterbury paid six pence per pound the

88 “Salmon and Trout Ova for Otago.” Otago Witness, 25 January 1868, 16
89 “Acclimatization Society.” Press, 30 November 1867, 2
90 “Local and General News.” New Zealand Herald, 6 June 1924, 8.
93 McDowall, Gamekeepers for the Nation, 120.
following decade.\textsuperscript{94} Across this period, eel killing became a social event as, in conjunction with the bounties, acclimatisation societies also regularly held eeling competitions with prizes for the biggest or most eels. Eel clubs intent on promoting the destruction of eels also began to crop up as offshoots of acclimatisation societies around the country.\textsuperscript{95} In 1942 the Palmerston North Branch of the Wellington Acclimatisation Society held an ‘eel drive’: ‘Normally multiple gaffs are used, strong lights being employed to show up the eels in the water at night. Such drives have a marked effect in lowering mortality among trout.’\textsuperscript{96}

Attempts were made to commercialise eels so as to generate a profit from this campaign of destruction, but no commercial avenue proved ultimately worthwhile until the 1960s.\textsuperscript{97} Although eels were being freely destroyed, some scientists devoted significant time to studying and understanding the eel, with Dr. G. Anderson presenting a lecture to the Wellington Zoological Society in 1921 on the life history of eels and specifically their ability to migrate incredible distances to breed.\textsuperscript{98} This research appears to have done nothing to slow the tide of destruction, and by the 1940s the government’s Wildlife Division was engaged in removing eels from the South Island lakes.\textsuperscript{99} On top of the active and intentional destruction of eels it is important to acknowledge that eels were also subject to significant habitat destruction throughout the nineteenth and twentieth-century with countless lowland swamps drained to generate profitable farmland.\textsuperscript{100} A deep irony is added to this point when it is considered that the Southland Acclimatisation Society removed 75,000 eels from swamps and ponds because they were believed to threaten a popular native game bird, the grey duck (\textit{Anas superciliosa}), as well as trout but, as Young notes, ‘the real problem for ducks was the reclamation of swamp.’\textsuperscript{101}

\textsuperscript{94}McDowall commences his discussion of the extermination of eels in 1903, with just one reference to their destruction prior to this; McDowall, \textit{Gamekeepers for the Nation}, 120-121.
\textsuperscript{95}“Local and General News.”, \textit{New Zealand Herald}, 28 April 1928, 10; Local and General News.”, \textit{New Zealand Herald}, 16 November 1929, 12.
\textsuperscript{96}“News of the Day.”, \textit{Auckland Star}, 4 November 1942, 2.
\textsuperscript{97}McDowall notes that ‘The societies investigated the possibility that commercial sales of eels to a relief arm of the United Nations might provide a profitable and effective means of reducing their numbers…’; McDowall, \textit{Gamekeepers for the Nation}, 123.
\textsuperscript{98}Local and General News.”, \textit{New Zealand Herald}, 11 May 1921, 6.
\textsuperscript{99}Young, \textit{Our Islands, Our Selves}, 145.
\textsuperscript{100}This will be discussed further later in this chapter; Geoff Park, “Swamps which might doubtless easily be drained: Swamp Drainage and its Impact on the Indigenous”, \textit{Environmental Histories}, eds. Tom Brooking and Eric Pawson, (Melbourne: Oxford University Press, 2002), 131.
\textsuperscript{101}Young, \textit{Our Islands, Our Selves}, 134.
Not all anglers believed destroying shags and eels was good for the trout fishery. Cecil Whitney, of Auckland, postulated in 1919 that:

The eel and shag no doubt take some of the trout weaklings, but these would be of no use to the rivers if they were allowed to live, and this is one of the reasons why the trout did so well in the South, because only the best breeding fish escaped the eel and shag. It is seldom that an eel or shag can catch a vigorous and well-conditioned trout.\(^\text{102}\)

Furthermore, there is clear evidence that trout consume eels in their juvenile states and their removal from the ecosystem may not have benefited the trout fishery at all. Whitney’s theory was ultimately proven to be true when Marine Department scientist, Max Burnet, conducted research in the late 1960s on the impact of eels on the population of trout in the Ōtukaikino stream, near Christchurch.\(^\text{103}\) By measuring the population in its natural state, and following a heavy harvest of eels, Burnet established that ‘with eels present there was a moderate population of good-sized trout, but with the eels removed there were large numbers of small trout.’\(^\text{104}\) As McDowall concludes: ‘Reducing the number of eels caused a deterioration in the quality of trout for the eels.’\(^\text{105}\) It therefore appears that the acclimatisation societies had, in the interests of improving the trout fisheries, produced the exact opposite effect. As a result of this research many, though not all, societies concluded their campaigns against eels and accepted the presence of eels in New Zealand’s waterways. Today eels are not legally protected, except on Department of Conservation land, and the Ministry for Primary Industries manages a commercial eeling industry throughout the country.

**A systematic prioritisation of introduced over native**

There is a tendency, if not specifically in academic writing then at least in the public conscience, when thinking about the introduction of foreign species and their impact on New Zealand’s environment to focus specifically of those species that came here as part of the acclimatisation movement or pest species such as rabbits or possums. The reality, however, is that the impacts of these species are almost inconsequential as compared with the systematic transformation of New Zealand’s environment that was undertaken to provide, amongst other things, grazing grounds for sheep and cattle.\(^\text{106}\)

\(^{102}\) “Trout in New Zealand.”, *New Zealand Herald*, 15 February 1919, 7.
\(^{104}\) McDowall, *Gamekeepers for the Nation*, 123.
\(^{105}\) Ibid.
\(^{106}\) If it sounds callous to describe the impact of rabbits as inconsequential consider briefly that without the deforestation, burning of tussocks, draining of swamps and planting of pasture associated with
As Peter Holland, Paul Star and Vaughan Wood point out: ‘…the implicit goal was a comprehensive makeover of ecological systems that had evolved in isolation from people, replacing them with largely artificial systems assembled from introduced plant and animal species.’¹⁰⁷ When one acknowledges the scale of the environmental overhaul that was necessary to render the land suitable for British agriculture, from the clearing of forests, the burning of tussock land and the draining of swamps to the sowing of European grasses as food sources for these introduced species, the impact on native species is truly immense.¹⁰⁸

This drive to improve the land and to transform it into highly productive pasture land in the nineteenth and early twentieth centuries was systemic of British colonisation of New Zealand and was a vastly more widespread, destructive and fundamental prioritisation of introduced over native than any of the aforementioned instances. Ecologists, John Gibb and John Flux, note: ‘compared with the changes wrought by 2.8 million people, 8.6 million cattle and 60 million sheep, the damage done by wild animals has been quite trivial.’¹⁰⁹ Writing specifically of deforestation, but applicable to the broader environmental transformation, American environmentalist George Perkins Marsh concluded:

> The needs of agriculture are the most familiar cause of the destruction of the forest in new countries; for not only does an increasing population demand additional acres to grow the vegetables which feed it and its domestic animals, but the slovenly husbandry of the border settler soon exhausts the luxuriance of his first fields, and compels him to remove his household goods to a fresher soil.¹¹⁰

This establishes the actions of British settlers in New Zealand within their broader colonial context; their actions were not unique, but rather were mirrored in colonial settings around the world. What was perhaps unique about the environmental transformation in New Zealand was simply how widely effected it was. As Park notes: ‘The 85 per cent decline in New Zealand’s wetlands since European settlement is one of the most dramatic known anywhere in the world – far higher than the countries in which modern agriculture began large-scale draining of swamps and

---

¹⁰⁸ Robert Peden & Peter Holland, “Settlers transforming the open country”, Making a New Land, 97.
marshes." The fertility of these lands, as compared with the remainder of the New Zealand environment, was critical in determining the extent of the draining, with Park pointing out that: ‘New Zealand’s lowland plains were mostly swampy or seasonally wet environments. … The high-inherent fertility of these low-lying environments also led European settlers to recognise their potential to be drained and developed as farm land.’ The result of this recognition was the widespread and systematic draining of swamps to produce farmland (see Fig. 40).

![Image of Fig. 40: To illustrate paper on the drainage of the Remuera swamp, 1869](http://rsnz.natlib.govt.nz/image/rsnz_02/rsnz_02_00_0266_0000f_ac_01.html)

Deforestation was similarly effectual, with Young concluding that: ‘The greatest losses occurred between 1882 and 1909, when the forests are estimated to have been diminished by almost 40 per cent from their original 11.4 million hectares: little combustible forest within reach of settlement remained at risk.’ Contextualising deforestation in its colonial setting, historical geographer Graeme Wynn wrote: ‘Their assault on the forest was directed to personal ends – the accumulation of profit, establishment of home and family [and farm] – but it lay squarely within the

---

111 Park, “Swamps which might doubtless easily be drained”, 174.
113 Park, “Swamps which might doubtless easily be drained”, 151.
115 Young, Our Islands, Our Selves, 99-100.
prevailing discourse of progress and improvement.'\textsuperscript{116} As a result of these actions, in a ten-year period between 1880 and 1890 New Zealand’s grasslands doubled from 1.4 million hectares to 2.8 million continuing on to 5.9 million hectares by the start of the First World War.\textsuperscript{117}

This transformation centred on the destruction of native flora, but the concomitant habitat loss meant that the actions impacted equally upon native fauna too. Accordingly, it represents an inherent and systematic prioritisation of introduced species over native species. Despite this, the presence of introduced agricultural animals as part of New Zealand’s environment has not been subjected to the same level of critique as species such as trout or deer, because their utility was believed to equal or exceed their impact.\textsuperscript{118} Portraying the actions of colonists in the light that I have, as acts of destruction, is to apply a presentist lens to past actions. It is not incorrect, as the actions were destructive, but it is an oversimplification to detach them from their social and colonial context. At the time, the notion of improving the land went largely unquestioned, as improvement, both personal and environmental, was deeply ingrained in the mentality of settlers.\textsuperscript{119} It is only in hindsight that the full impact of these actions upon indigenous species and the land itself can be seen clearly. What becomes clear is not solely the systematic transformation of the land, but that the introduction of foreign species was a core tenet of this transformation. In terms of a sheer prioritisation of introduced species over New Zealand’s native environment, there is no question that the transformation of New Zealand’s forests, tussock lands and swamps to agricultural lands is in a league of its own.

\textit{The prioritisation of introduced species over Māori}

Much has been made of the prioritisation of introduced over native species, and yet there is a very real case to be made that at various points introduced species were

\textsuperscript{116} Graeme Wynn, “Destruction under the guise of improvement? The Forest, 1840-1920”, \textit{Making a New Land}, 128.


\textsuperscript{118} At least until the rise of intensive dairy farming and the associated impact on nitrate levels in streams in conjunction with the necessity to irrigate beyond a sustainable level. Furthermore, in many cases the practices involved with transforming the land have been criticised, but not the presence of the animals themselves.

\textsuperscript{119} There were notable instances of opposition, such as James Hector decrying deforestation in 1870, but the overall mood of society was in favour of the transformation; Young, \textit{Our Islands, Our Selves}, 70.
prioritised over Māori. Chapter Seven addressed the displacement of traditional food sources by trout, and that will not be dealt with again here, though it informs the case for the prioritisation of introduced species over Māori significantly. The destruction of eels to protect trout, for instance, is complicated by the fact that eels were the most prized freshwater food source for Māori, giving them a utility and value that shags did not possess. In 1929 the Auckland Star wrote:

Maoris in the Taranaki district have made it clear they do not share the aversion with which the eel is regarded by various clubs that have been set up to wage an eel war. The activities of the eel clubs have provided much sport for members and anglers, and the natives have been much alarmed by reports of heavy hauls taken from their favourite eeling waters. To many Maoris the eel has from the early days been regarded as a staple article of diet, and the methods devised for catching him have shown much enterprise.

More than simply not sharing an aversion to eels, Māori placed immense value on eels and the traditions and customs surrounding their fishing practices reflected this. As renowned New Zealand explorer Thomas Brunner observed in the 1840s:

There is a particular tapu existing amongst the natives relative to the eel. You must wash your hands before going to catch them, and also on returning, and the bait must be prepared some distance from the house. There must be a distinct fire for cooking the eel, for which you must have a special tinder-box; your hands and mouth must be washed before partaking of them; and it should be necessary to drink from the same stream from which the eels are caught...

For Pākehā settlers to wantonly destroy eels in huge quantities with no regard for their significance to Māori represents an instance whereby an introduced fish, the trout, was prioritised over the dietary and cultural considerations of a native people. Similarly, provisions in the Salmon and Trout Act 1867 had the potential to preclude Māori from aspects of their traditional fishing practices in order to protect trout.

But there is a more fundamental prioritisation that extends well beyond the impact of trout and the steps taken to protect them. The draining of swampland, referred to above, links into this because as Geoff Park notes: ‘Swamps, rivers and lakes are interconnected ecologically; that is the key to their biological productivity and resource value... As traditional Maori fishers knew, river and lake fisheries are productive in relation to the areas of swampland they water.’ It is one thing to

---

120 This topic is immense both in breadth and significance, and all that is intended here is to extrapolate the findings of my research on the prioritization of introduced over native species to their broader context. For more on this topic see Park, Effective Exclusion: An exploratory overview of Crown actions and Maori responses concerning the indigenous flora and fauna, 1912-1983, (Wellington, Waitangi Tribunal: 2001).

121 See Chapter Seven for a discussion of the significance of eels to Māori.


123 “Mr. Brunner’s Late Exploring Expedition.”, New Zealand Spectator and Guardian, 28 October 1848, 3.

124 Park, “Swamps which might doubtless easily be drained”, 160.
remove eels from a body of water, but something entirely different to remove the body of water itself: the former is reversible, the latter permanent. Park further comments: ‘Some of the richest and most productive resources of all were the coastal swamps in which those forests and fisheries [the primary resources of the Māori economy] co-occurred in the same immediate environment.’ Draining swamps to graze introduced animals therefore deprived Māori of traditional food gathering places as well as prohibiting certain ecological processes that resulted in a significant reduction of resources upon which they depended. Similarly, deforestation, either for industry or to generate pasture, resulted in immense habitat losses for native species, many of which were key food sources in the traditional Māori diet. British settlers, however, were not the only ones to destroy New Zealand forests, as it is estimated that within 200 years of Māori arrival up to 40 per cent of forests had been burnt to grow crops and to clear land for passage and hunting.

Importantly, Park also notes that Māori were effectively excluded from the decision-making process concerning indigenous species resulting in a lack of agency. Perhaps more tellingly, Park concludes that there is little evidence of an overt ‘anti-Maori position’ but simply an absence of thought given to Māori. These actions, undertaken by individual settlers and Crown alike, were not done with the intention of alienating Māori, nor of prioritising introduced species above Māori, but rather the alienation and prioritisation was an unintended but significant consequence of these actions. Accordingly, the systematic transformation of New Zealand’s environment by British settlers can be seen to have prioritised the introduction of foreign species over the rights and resources of Māori.

**Shifting views and the place of introduced species tomorrow**

The contrast between the historical perspectives outlined above and the modern New Zealand outlook on introduced species portrays a jarring juxtaposition. Gone are

125 Ibid, 161.
128 Park, Effective Exclusion, 667.
129 Ibid.
130 Although there is a strong case to be made that we continue to desecrate the earth in the name of improvement…
the shag hunts, the eel pogroms or the kea kills; today it is trout, and other introduced species, whose existence in New Zealand must be justified by those in favour of them. This section does not intend to provide a history of conservation in New Zealand, but rather to provide a brief overview of changing perspectives on introduced species and to ask what the place of introduced species in New Zealand will be in the future.131 The New Zealand conservation movement can trace its origin to the 1870s and, in a vein of unmistakeable irony in light of the modern view, introduced species were often the initial catalyst for environmental awareness and action. Town Creek, flowing into Lake Wakatipu, in 1874 had for years been subject to water quality issues but ‘no sooner do a few trout ova arrive than they go into hysterics over the conservation of the purity of this stream.’132 Similarly, the discharge of waste products from saw and flax mills, gold mining, as well as sheep farming, into rivers and streams was opposed by settlers across the country on the basis of the harm it could do to trout contained within them.133 This phenomenon speaks to the fact that settlers saw greater utility in rivers once trout were established and accordingly thought them worthy of protection.134

A similar movement emerged in the United States of America, as environmental historian John Reiger argued: ‘the fish-culture movement [of the 1870s and 1880s] was the very first environmental crusade to capture a significant percentage of the American public [and that] the adoption of a national fish-culture program included efforts to control water pollution.’135 In New Zealand, the *Salmon and Trout Act 1867* was one of the earliest pieces of legislation to grant environmental protection to waterways, albeit indirectly.136 Once waterways became home to trout and salmon, rather than simply indigenous fish in which settlers saw little value, the waterways themselves became worthy of protection. In this way early conservation in New Zealand can be seen to have had strong colonial undertones. In contrast, the Water

---

132 “Letters to the Editor.”, *Lake Wakatip Mail*, 28 August 1874, 3.
134 The same reason explains the early legislative preference given to introduced species.
136 *Salmon and Trout Act 1867*. 
Conservation Order made in 1997 in respect of the Nevis River was granted largely on the basis that it was the sole habitat for an endemic species of non-migratory galaxiid (*Nevis galaxias*), reflective of the rising status of native species generally within New Zealand.\textsuperscript{137}

Beginning in the 1870s, there was a dawning awareness of conservation, as Young puts it, amongst New Zealand settlers.\textsuperscript{138} Scottish scientist James Hector, who came to be one of the eminent scientific voices in New Zealand, lamented that: ‘The rapid destruction of the native forests I consider to be most wasteful, and as having the effect of rapidly reducing the natural resources of the country.’\textsuperscript{139} Hector’s views were strongly influenced by George Perkins Marsh and his book *Man and Nature*, which argued against deforestation on the basis that it dried up the climate of a country with a number of undesirable repercussions.\textsuperscript{140} More broadly, Marsh’s work represents a watershed moment as it encouraged settlers to consider the ecological implications of their actions.\textsuperscript{141} Graeme Wynn explains how, influenced by Marsh, a post-Darwinian curiosity and the international trend towards understanding the ecological impact of people, a number of New Zealand parliamentarians: ‘Spared by their position and their capital from the general struggle to develop the new land… were able to consider the wider implications of an unbridled assault on the New Zealand environment…’\textsuperscript{142} The long-term result of this line of thinking was consideration of the ecological impact of the introduction of foreign species to New Zealand with the result that many once desirable introduced species were reclassified as pests.\textsuperscript{143}

Rabbits were the first introduced species to be viewed critically by settlers, though less for the damage they did to native species and more for their negative influence on

\textsuperscript{137} Whilst this is true, Fish and Game remain one of the strongest freshwater advocates in New Zealand highlighting a curious dichotomy: trout consume native fish, but the managing body of the trout fishery in New Zealand expends significant funds to protect the waters that these native fish live in. To this end there is a destructive divide in New Zealand’s freshwater conservation movement, as the overarching goals of those in favour of trout and those that oppose them are 95 per cent identical: sufficient supplies of fresh, clean water; *Water Conservation (Kawarau) Order 1997*.

\textsuperscript{138} Young, *Our Islands, Our Selves*, 80.

\textsuperscript{139} Hector, quoted in Young, *Our Islands, Our Selves*, 70.

\textsuperscript{140} Marsh, *Man and Nature*, 186.

\textsuperscript{141} Marsh was not opposed to acclimatisation, and advocated in its favour in specific instances.

\textsuperscript{142} Graeme Wynn, “Conservation and Society in Late Nineteenth-Century New Zealand”, *New Zealand Journal of History*, 1 (1977), 133.

\textsuperscript{143} Something Māori had been doing from the moment these species were introduced.
pasture and agriculture. Widespread shooting, poisoning and trapping of rabbits ensued, and continues to this day. However, the approach taken to combat the rabbit infestation does not represent the most ecologically sound one, as in the 1880s mustelids (stoats, ferrets and weasels) were introduced by the government ‘over the protests of scientists and also the dead bodies of millions of native birds…’ These carnivo\*res have probably caused greater harm to New Zealand’s indigenous fauna than rabbits ever would have, and have themselves been subject to substantial and complex eradication campaigns. Similarly, the Australian brushtail possum (*Trichosurus vulpecula*) was first introduced to New Zealand in 1837 in an attempt to establish a fur trade and came to wreak devastation on the indigenous canopy of New Zealand’s forests as well as both destroying habitat for native birds and consuming their eggs. Initially, they were subject to seasonal limitations and a licensing regime but in 1956 all protection was removed. Whilst the subsequent attempts by individuals and government to eradicate possums does reflect a desire to preserve indigenous flora and fauna, there was also an economic element to it as the fur and skins were of significant value.

Of most direct application to the history of the introduction of trout to New Zealand, however, is the approach taken to deer. First brought to New Zealand in 1854, deer (most commonly red deer, *Cervus elaphus*) were introduced for much the same reasons as trout and took to New Zealand’s hills and forests as adeptly as trout took to New Zealand’s waterways. They were similarly protected in the early years of their introduction. The absence of predators with the exception of humans, in conjunction with the ample foliage, meant that deer were able to propagate and spread widely throughout New Zealand. Deer were initially managed as a recreational

---

144 Young, *Our Islands, Our Selves*, 86.
145 Whilst rabbits consume native plants in great quantities, their more significant impact is as an agricultural pest where they compete with livestock for introduced and sown pasture. Their greater impact on native fauna is, therefore, as a food source for other predators, sustaining populations of predators that destroy native birds.
147 “Improvement of Trout,” *New Zealand Herald*, 16 July 1914, 8.
148 An argument can be made for the impact of possums on introduced species too, as they are a carrier of bovine tuberculosis, which affects both cattle and deer; Ibid.
resource and it was necessary to purchase a licence to hunt them. Yet by 1910, farmers were expressing concern at the substantial damage deer were doing to pasture, and deer were found to be similarly destructive to native undergrowth. Initially, acclimatisation societies sought to appease farmers by organizing large scale culling, but in 1930, as geographer Guil Figgins observes: ‘all protection offered by the acclimatisation societies, including licensing restrictions, were removed.’ Following this, a campaign of deer culling funded by the Department of Internal Affairs’ Deer Control Section commenced in the 1930s and became, in many ways, a fundamental part of New Zealand’s outdoor culture. As Figgins states:

The stories told within this body of literature [deer cullers’ memoirs] have entered the popular imaginations of following generations of hunters, and the image of the New Zealand man as a bushman is still powerful today, emphasizing the role that hunting red deer has played in the formation of cultural identities.

It is unlikely that this campaign of culling would have eventuated if not for the economic losses of farmers, as in this period kea were still killed in their thousands and thus interests in the overt preservation of native environments remained dubious.

Public perception of deer underwent a dramatic shift in the century following their introduction: deer went from being a prized species, exalted as a sporting animal and representative of the egalitarian aspirations of New Zealand society, to being reclassified as a pest under the Noxious Animals Act 1956. This shift illustrates a wider societal transition whereby introduced species, once seen as valuable additions to a ‘barren’ environment, are now vilified for their impacts on New Zealand’s increasingly valued indigenous ecology (see Fig. 41). Whilst government shooters no longer cull deer, they are New Zealand’s most popular recreational hunting species and there remains a strong international industry for venison. Calls have been made for trout too to be culled as a result of the damage they have done to native freshwater species, but so far the only culling of trout has been as a management strategy to improve the condition of trout in Lakes Rotorua and Taupo. It is likely that their

---

150 Ibid, 112.
152 Figgins, “Hunters and Collectors”, 120.
153 Hunter, Hunting, 25; Figgins, “Hunters and Collectors”, 122; See also Barry Crump, A Good Keen Man, (Wellington: Reed, 1960).
155 The fish were netted and sold both fresh and smoked at markets around the country; “Improvement of Trout,” New Zealand Herald, 16 July 1914, 8.
value as a recreational species, in conjunction with the lack of economic damage caused, has prevented this up to this point.

Fig. 41: Changing views of the value of native birds, 1959\textsuperscript{156}

Lastly, it is briefly worth postulating what the place of introduced species is in the New Zealand environment of tomorrow. Little argument exists surrounding the eradication of species such as possums, mustelids and rabbits: the sole debates surround the methodology of the eradication and specifically the use of sodium fluoroacetate (1080). More complex is the place of species that, whilst detrimental to indigenous species, offer recreational utility, specifically deer and trout. Thomas Isern observes that: ‘A bellicose, national-security rhetoric that pits virtuous natives in moral contest against an evil empire of alien invaders may be useful as a stimulus, but it also raises impossible expectations.’\textsuperscript{157} The reality of entirely removing introduced species from our ecosystem may now be beyond our grasp and in certain instances it is debatable whether it is even desirable to do so. With regard to freshwater advocacy, Fish and Game New Zealand, the managing body for trout and salmon, and trout anglers generally are amongst the strongest voices in opposing detrimental farming practices and hydro-electricity schemes.\textsuperscript{158} To this end, Fish and Game have secured 12 of the 15 Water Conservation Orders, the highest legal protection a waterway can


\textsuperscript{157} Isern, “Companions, Stowaways, Imperialists, Invaders”, 245.

\textsuperscript{158} There appears to be a correlation between utility and advocacy, thus voices of other recreational users such as white water kayakers also feature heavily in freshwater protection.
get. Its actions, whilst motivated primarily by protecting an introduced species that predates on indigenous species, have significant beneficial effects for indigenous species too. Excessively high nitrate levels are as detrimental to indigenous fish as they are to trout, nor can any fish, indigenous or introduced, survive in a waterway entirely dewatered by irrigation, just as hydro-electric schemes and the associated dams prevent the passage of migratory galaxiids every bit as much as they prevent the passage of anadromous salmonids. The impact of trout on indigenous species needs to be acknowledged, but 150 years after their introduction they are likely to have reached their ecological equilibrium. Greater threats to indigenous fish today stem from habitat loss as a result of human action. Ridding New Zealand’s waterways of salmon and trout may reduce predation on indigenous fish, but it would also rid the waterways of one of their strongest protectors: Fish and Game. What is called for, therefore, is a progressive management system that integrates both indigenous and introduced species in a manner that unites the freshwater environmental movement to mitigate future damage. As range management scientist Kevin O’Connor suggested, we should ‘try a little harder...to understand better what we, Maori and European, have already done to this land... Then we may better create a landscape in which we can all take shelter, a landscape in which no early arriver, no latecomer, plant or animal, is alien.’ Or, in simpler terms, we have made our bed and now must work out how best to sleep in it.

Conclusion
The prioritisation of introduced species over native species by settlers throughout the nineteenth and early twentieth-century is an important aspect of New Zealand’s environmental history that highlights several key themes. The influence of Darwinism, and a belief in the innate superiority and utility of foreign species over

---

159. The waterways are as follows: the Motu River, Mohaka River, Manganui o te ao River, Rangitikei River, Lake Wairarapa, the Motueka River, Buller River, Lake Ellesmere, the Rakaia River, Rangitata River, Ahuriri River, Kawarau River, Oreti River and Mataura River; Outstanding Rivers, [Accessed 29 October 2017: http://www.outstandingrivers.org.nz/].
160. Brown trout and Canterbury galaxiids are the only freshwater fish species to show decline in the past 40 years. All other species are either stable or increasing, indicating that whatever impact trout have had on indigenous freshwater species has happened and we have reached a point of equilibrium; National Institute of Water and Atmospheric Research, “Temporal Trends in the Relative Abundance of New Zealand Freshwater Fishes: Analysis of New Zealand Freshwater Fish Database Records”, (Christchurch: NIWA, 2016).
161. Catherine Knight describes this as a ‘paradox of environmental history’; Catherine Knight, Rivers: An Environmental History, (Christchurch: Canterbury University Press, 2016), 118.
New Zealand’s indigenous flora and fauna, provided the philosophical background for settlers to implicitly and overtly favour introduced over native species. These introductions and the associated environmental transformation represent a fundamental manipulation of an ecosystem for the perceived benefit of British settlers. This approach is entirely in keeping with established concepts of progress and improvement, and speaks to the critical connection between British colonisation and the introduction of species such as trout. From the moment of their introduction, British species were subjected to legislative protection of a type that took native species decades, or for kea over a century, to attain. Similarly, native species that were believed to threaten these introduced species were destroyed without any thought given to the extent of their predation on the introduced species concerned, the impact of this destruction on Māori or flow-on effects for the remainder of the ecosystem. A further connection between the prioritisation of introduced species and British colonisation can be seen in the fact that as much as the British engaged in wars with Māori over territory and resources, so too were wars waged with eels and shags over the streams and hawks and keas over the hills.

The systematic nature in which introduced species were prioritised over native species by virtue of the environmental transformation that settlers undertook, whilst of substantially greater significance than the introduction of trout, should nonetheless be viewed as a part of the same movement of progress and improvement that resulted in the introduction of sporting species like trout. The draining of swamps, clearing of forest and burning of tussock land fundamentally and irrevocably altered New Zealand’s landscape. This analysis also establishes a significant economic element to the prioritisation of introduced species, as this systematic prioritisation was motivated primarily by a desire to generate fertile farmland. A consequence of this transformation was that Māori were alienated from traditional resources and the value they derived from these resources was considered, if it was considered at all, substantially less than the benefit to Pākehā of grazing sheep and cattle. The argument that introduced species were prioritised ahead of Māori interests is further supported by the widespread destruction of eel, the most significant freshwater food source for Māori with significant tapu attached, in an erroneous belief that it was in the best interests of the trout fishery.
The preferential treatment of introduced species also gives us a substantial point of contrast from which to consider New Zealand’s current environmental outlook and the inherent value now attributed to native species. This transition can be seen clearly in the societal approach taken to introduced species from protecting them following introduction to subsequently spending millions of dollars to try and eradicate certain species. The campaigns undertaken to rid the country of animals that were not necessary to introduce in the first place are a testament to both the lack of ecological foresight settlers had and the inherent risk and unpredictability associated with introducing a species to an area beyond its natural range. More fundamentally, it reflects a changing philosophy in New Zealand society away from a desire to recreate Britain to a realization that species that are successful, sustainable and desirable in Britain may not be so in New Zealand. The belief in the manifest superiority of British species, and particularly their desirability in New Zealand, was shattered by the reality of introducing these species. It has to be noted though that the most substantial campaigns against introduced species were, until very recently, still motivated by their economic impact on introduced agricultural animals or at least partially by economic gain through the sale of skins or meat from the culled animals. Only relatively recently have Department of Conservation campaigns like ‘Battle for the Birds’, focusing on possums and mustelids because of the damage they do to native birds, been motivated solely by an altruistic desire to preserve indigenous species.\textsuperscript{163} Finally, the entire concept of what a pest is in New Zealand has changed during this period. Where once pests were almost exclusively native species, like kea or eels, seen to threaten introduced species, today the diametric opposite is true and the list of pests on the Department of Conservation’s website contains only introduced species. Native species, like hawks and shags, are capable of being a pest if they interfere with crops but that title is no longer bestowed upon them by default.

\textsuperscript{163} Across the previous fifty years the black robin, kiwi, kōkako, takahē, kakapo and fern bird have all been the focus of campaigns to protect them from habitat loss and predators.
Chapter Nine: Trout and Empire

Introduction

The core argument of this thesis is that the introduction of brown trout to New Zealand is inherently linked to the British colonisation of New Zealand. In many ways this is self-evident, as they are a fish native to Britain, introduced by British colonists amidst a wave of organized British settlement in New Zealand. There is no doubt that, but for British colonisation of New Zealand, brown trout would not have been introduced at the time or in the fashion that they were, and to this extent they should be seen as a product of this colonisation. However, because the introduction of trout was also representative of broader colonial themes of improvement, progress and an aspiration for a more egalitarian society, brown trout can also be viewed as an agent of the British colonisation of New Zealand.1 As a result of this connection to British colonisation and the British Empire, trout provided the perfect catalyst to consider a number of broader points in colonial environmental history. Consequently, a substantial portion of this chapter will be devoted to an analysis of Alfred Crosby’s *Ecological Imperialism.*2 Crosby’s work has been hugely influential, albeit not without criticism, in environmental history for seeking to explain both the flow of organisms from Europe to the Neo-Europes, Crosby’s term for the ‘New World’, as well as the implications of this flow in the subsequent success of European colonisation. It, therefore, provides an ideal point of analysis from which to consider the introduction of trout to New Zealand on a more fundamental level and in particular to consider brown trout as an agent of British colonisation.

This chapter, therefore, seeks to demonstrate the multi-faceted connection between the British colonisation of New Zealand and the introduction of trout, as well as flesh out a number of associated themes. Firstly, the relationship between trout and the British Empire will be considered. Particular focus will be given to the notion of trout as an agent of British colonisation, as it informs the applicability of ecological imperialism. Secondly, the argument in Crosby’s *Ecological Imperialism* will be

---

1 This role as an agent of colonisation is further compounded by the relationship between trout and Māori that formed the basis of Chapter Seven.

explained and applied as a framework to the introduction of trout to New Zealand. This will facilitate an in-depth analysis of the concept of ecological imperialism and it will be determined whether the introduction of trout to New Zealand is capable of disproving Crosby’s thesis. Thirdly, the introduction of trout in New Zealand will be compared to equivalent introductions internationally. Particular focus will be paid to Australia and North America and their acclimatisation movements, or lack thereof. As part of this section a comparison between the acclimatisation movement and the garden movement in New Zealand will also be made. Fourthly, the role of ethnicity in the introduction of trout to New Zealand will be considered. The regional chapters have addressed ethnic characteristics particular to some regions and this section will build upon those differences to determine the influence of ethnicity in the introduction of trout. Finally, interwoven throughout this thesis is the notion of trout as representative of an egalitarian ideal encompassing a detachment from the rigorous game laws of Britain. This section will challenge whether the reality that eventuated attained that egalitarian ideal.

**Trout and Empire**

The distribution of brown trout beyond their native range is inherently linked to European, and especially British, imperial expansion. The connection between trout and empire is two-fold, as brown trout were both a product, as well as an agent, of colonisation. The notion of brown trout as a product of colonisation has been made apparent through this study of their introduction to New Zealand by British settlers. Introducing freshwater fish to new environments was not an exclusive trait of the British Empire. Environmental historian John McNeill notes that since 1850 over 250 different species of freshwater fish have been transported to at least 140 different countries. There is, however, a direct correlation between British imperial interests and the geographic distribution of brown trout around the world. Geographer Ian Simmons, whilst oversimplifying the motivation for introducing trout, observes that: ‘In a piece of nostalgic symbolism, trout were exported to many parts of the British Empire (for example, the Madras hills in 1863, Tasmania in 1864, and thence to mainland Australia and New Zealand, 1898 South Africa, and 1947 the Falkland

---

3 The introduction of trout alone cannot prove so broad and expansive an argument as ecological imperialism.
There is also a suggestion that British interests in South America influenced the introduction of brown trout to the ‘informal empire’ nations of Argentina and Chile; however, it would require more localised primary research to substantiate this claim. An argument can further be made that the introduction of salmonids from the United States of America, such as rainbow trout and Chinook salmon from the West Coast and brook trout from the East Coast, to New Zealand can also be viewed in an imperial light. As Ian Tyrrell notes of the attempts to introduce plant species to California: ‘…they [European settlers in California] became indirectly involved in the British Empire’s acclimatisation movement. They became interested in acclimatisation of plants in a circuit through California, Hawaii, New Zealand and Australia.’ This transfer was not limited to plants, as the same movement conveyed Pacific salmonids to New Zealand and Australia. Accordingly, the introduction of these species, a New World-to-New World flow, whilst taking a different form to more linear Europe-to-New Zealand introductions, should still be seen as a product of British colonisation.

The introduction of brown trout as a product of the British colonisation of New Zealand is a relatively straightforward concept. Of greater complexity though is the idea of trout as an agent of British colonisation. The implication of trout as an agent is that the introduction of brown trout was more than simply a result of British colonisation but rather that the group of species of which brown trout are representative actually played an active role in the British colonisation of New Zealand. Central to this argument is the idea that by introducing trout to New Zealand’s rivers British settlers were improving both New Zealand’s resources as well as their own lifestyle and recreational opportunities in future years. The introduction of trout and the ability for all classes of people to fish for them therefore represents a

---

8 Jim McAloon makes a similar argument for the dual role of grass in stating that ‘grass was both a vehicle and a product of capitalist globalization.’; Jim McAloon, “Mobilising Capital and Trade”, *Seeds of Empire: The Environmental Transformation of New Zealand*, Eds. Tom Brooking & Eric Pawson (London: I.B. Tauris Ltd., 2011), 94.
realization of a colonising aspiration.\textsuperscript{9} Settlers and acclimatisers were also adding value to New Zealand’s environment in a manner that would result in greater immigration. The New Zealand Company, responsible for the Canterbury, Otago and Wellington settlements, advertised that ‘real British trout of the purest breed were to dart athwart the mountain torrents’ in a bid to elicit migrants.\textsuperscript{10} Similarly, the Canterbury Settlement went so far as to offer a prize for anyone able to successfully introduce trout or other British freshwater fish to New Zealand on the basis that it would be a lucrative draw card for their settlement to advertise trout as resident in the waters of New Zealand.\textsuperscript{11}

James Belich argued that the motivations which influenced the mass migration of the nineteenth-century can be categorised as either ‘push’ or ‘pull’ factors.\textsuperscript{12} Push factors speak to the migrants’ current circumstances, typified by overcrowding and limited opportunities, whereas pull factors speak to the prospective benefits and opportunities migrants might get from moving to a new land (see Fig. 42).\textsuperscript{13} As Michael King notes: ‘The attraction lay in the promise of prosperity and healthier environments, prospects for social advancement without the hurdles of a class system…’\textsuperscript{14} Adrian Franklin observes that in nineteenth-century Britain: ‘Trout and the salmon…became synonymous with, if not metaphors of, an idealized nature and spiritualized elevation.’\textsuperscript{15} In an increasingly industrialised, urbanised and overcrowded Britain, these ideals were of increasing significance and, in conjunction with the implicit social advancement associated with the ability to fish for trout, meant that trout represented a pull factor in British migration to New Zealand. Migrants leaving Britain were seeking a better quality of life, with opportunities they did not have in Britain, and the introduction of trout furthered New Zealand’s desirability for prospective migrants. This is not to suggest that the introduction of brown trout alone would have elicited a material increase in migration, but simply that it, along with a

\textsuperscript{9} Whether the introduction was in fact truly egalitarian will be addressed in the final section of this chapter.
\textsuperscript{14} Ibid, 170.
number of other introductions and alterations to New Zealand’s environment, made migrating to New Zealand more appealing for colonists seeking a better quality of life.

![New Zealand Company emigration poster, 1848](http://otago.ourheritage.ac.nz/items/show/9863)

Fig. 42: New Zealand Company emigration poster, 1848

Beyond this, the displacement of native species as a result of the introduction of trout and the flow-on effect of reduced resources for Māori also contributed to the British colonisation of New Zealand. As discussed in detail in Chapter Eight the introduction of trout to New Zealand resulted in colonists taking further steps to shape New Zealand’s environment to their desired effect by destroying shags and eels, a significant resource for Māori. The reduction of customary freshwater resources, most keenly felt around Lakes Rotorua and Taupo but applicable throughout the country, diminished the ability of Māori to continue a traditional existence. Many iwi were forced to engage diplomatically with a colonial government, purchase a licence issued by an acclimatisation society or render themselves liable to prosecution in a colonial court by taking trout without a licence. All of the aforementioned actions brought Māori further within the realm of colonial influence and assisted in facilitating the British colonisation of New Zealand.

17 I don’t wish to overstate the impact of introducing trout to New Zealand; they simply reflect one further element in the British colonisation of New Zealand.
It is also briefly worth acknowledging that the introduction of trout to New Zealand was reliant on imperial technology. Practices derived in Europe, and particularly France, travelled to New Zealand through Britain and Australia.\textsuperscript{18} Historian Daniel Headrick wrote in *The Tools of Empire* of the manner in which technology facilitated European imperialism across the nineteenth-century.\textsuperscript{19} Whilst the focus of his argument was on large-scale technology such as transportation, weaponry and communication, smaller technological developments also contributed to the successful establishment of European colonies around the world. If we accept that the introduction of trout and other fishes played a role, albeit minor, in the British colonisation of New Zealand, then pisciculture should be viewed as a ‘tool of empire’ as it permitted European fish to be introduced to the colonies of the British Empire.\textsuperscript{20}

The argument for pisciculture as an imperial technology is further strengthened by Headrick’s subsequent work *The Tentacles of Progress*, which addresses the transfer of technology between empire and indigenous peoples.\textsuperscript{21} Within New Zealand, Māori adoption of pisciculture was relatively minor, but it is clear that Tuhoe did engage in trout breeding on the shores of Lake Waikaremoana.\textsuperscript{22} Prior to colonisation, Māori engaged in the translocation of indigenous fish species and, were it not for the fact that Māori saw relatively little utility in trout because of the prohibitive licensing scheme, it is likely that there would have been a far greater adoption of trout breeding by Māori. Pisciculture will never compete with the musket in terms of influence but it too was a tool of empire.

*Alfred Crosby’s Ecological Imperialism and the introduction of trout*

Alfred Crosby’s *Ecological Imperialism: The Biological Expansion of Europe, 900-1900* seeks to explain the success of European expansion to new territories through ecological factors associated with the intentional and unconscious introduction of European animals, plants and other organisms, which Crosby refers to as the

\begin{itemize}
\item \textsuperscript{18} Darin Kinsey, “Seeding the Water as the Earth: The Epicenter and Peripheries of a Western Aquaculture Revolution”, *Environmental History* 11, no. 3 (2006): 528.
\item \textsuperscript{20} The introduction of trout also ties into a number of Headrick’s more significant imperial tools, as it was reliant on communication between Britain and the colonies as well as efficient transportation methods to allow the ova to survive the journey; McNeill, *Something New Under the Sun*, 259-260.
\item \textsuperscript{22} “Acclimatisation Society.”, *Hawke’s Bay Herald*, 1 February 1883.
\end{itemize}
‘portmanteau biota.’

Written originally in 1986, *Ecological Imperialism* is over 30 years old, and yet it remains highly influential as an explanation for the successful colonisation of much of the New World by European peoples as well as their associated flora and fauna. The scope of this work is immense, mapping a millennium of European imperial expansion, along with its biological impacts and outcomes. Accordingly, applying the concept of ecological imperialism to the introduction of brown trout to New Zealand cannot in and of itself prove Crosby’s thesis, as trout represent just one small part of the portmanteau biota that British colonists brought to New Zealand. Whilst Crosby’s thesis takes into account the intentional introduction of agricultural animals and other domesticated animals, as Michael Williams observes, it is centred upon the ‘unleashing [of] an unconscious and unpremeditated ecological/biological imperialism as their [European] crops, weeds, germs and pests accomplished dramatic demographic takeovers.’ Crosby places substantial weight on the unintentional introductions of organisms, typified in New Zealand by influenza and various venereal diseases, and suggests that where the portmanteau biota was intentionally introduced those introducing it were often ignorant of the implications and nuances of the introduction.

Crosby also focuses heavily upon the manner in which European organisms co-ordinated in their new environment, stating: ‘One of the most important factors in the success of the portmanteau biota is so simple that it is easy to overlook. Its members did not function alone, but as a team.’ Where agricultural animals were introduced, so too were the grass species upon which they grazed, and they acted collectively, in conjunction with a number of other European species upon the indigenous flora and fauna. The existence of multiple species, which had evolved together in Europe,

---

25 The most this analysis can do is disprove Crosby’s hypothesis or show that the introduction of trout to New Zealand was consistent with it.
26 It is important to note that *Ecology and Empire* was written in 1997, prior to the release of the 2nd edition of *Ecological Imperialism*. However, as there is so little difference between the two editions the commentary on Crosby’s argument in *Ecology and Empire* remains entirely relevant; Michael Williams, “Ecology, imperialism and deforestation”, *Ecology and Empire: Environmental History of Settler Societies*, Eds. Tom Griffiths & Libby Robin (Edinburgh: Keele University Press, 1997), 169.
exercised a more comprehensive impact upon the ecological order of a new country than each species would have had in isolation. Any assessment of the impact of an individual species and its accordance with ecological imperialism must, therefore, consider the impact of associated species and how these species facilitated the successful establishment of each other. The introduction of brown trout to New Zealand, therefore, should be viewed in conjunction with the introduction of Atlantic salmon, European perch (*Perca fluviatilis*) and various aquatic plants from Britain, although the reality is that brown trout co-exist more with the Neo-European Pacific salmonids introduced from 1883 onwards. Atlantic salmon were not widespread in New Zealand, and particularly not in the early years when brown trout became established. Similarly, while British aquatic plants do provide habitat for the invertebrates upon which brown trout feed they did not have a material impact upon the introduction of trout. The reality is that New Zealand’s native environment provided brown trout with all of the requirements they needed to thrive without the assistance of other members of the portmanteau biota: an ideal climate, a relative lack of predators, plentiful food in the form of native fish and invertebrates, and suitable spawning conditions.

Although brown trout may not have needed assistance following their introduction, it is clear that they received it from one member of the portmanteau biota: British settlers. Introductions of trout continued long after their establishment was assured, eels and shags were destroyed and legislation was instigated to protect them. Thus, people have shaped the entire existence of trout in New Zealand. Crosby’s notion of ecological imperialism tends to portray colonists in a more passive role, as a conduit of organisms, which detracts from human agency. As Australian environmental historian Tom Griffiths notes:

> It is to the passive or distracted role of humans in ecosystems that he directed our attention, rather than to the manifest history of conscious social or political action that conventionally occupies historians. Such an approach deliberately plays down the conscious and deliberate

30 William Senior, writing in 1880, even suggested that these British aquatic plants ‘foolishly introduced by a person who fancied it was good feed for fish… have become a nuisance.’: William Senior, *Travel and Trout in the Antipodes: An Anglers’ Sketches in Tasmania and New Zealand*, (London: Chatto & Windus, 1880), 259.
actions of humanity in order to reveal the independent and semi-independent dynamism of the natural world, itself normally the passive background in historical narratives.\textsuperscript{31} Crosby’s approach has value, therefore, because he is providing weight to elements of history that have largely been ignored. There is no doubt that elements of the transfer of organisms from Old World to New were passive.\textsuperscript{32} However, too much of what shaped New Zealand’s ecological transformation, and assisted British colonisation, was enacted purposefully and consciously by settlers in the name of progress to be considered passive or distracted.\textsuperscript{33}

Where Crosby speaks of the manner in which European grazing animals and the weeds they have evolved with co-exist beneficially, it is important to remember that those weeds had to be imported to New Zealand and intentionally sown over fields before they became established.\textsuperscript{34} Writing of this, Crosby states: ‘When European farmers swept into the Neo-Europes, their weeds swept along with them.’\textsuperscript{35} The construction of this sentence almost suggests that the weeds were the active party, travelling here of their own volition, rather than owing their introduction to the actions of humans. To an extent, the introduction of European pasture species is implicit in the introduction of European grazing animals, as Crosby alludes to, but it still requires human action.

The introduction of trout was not an instance of an animal being brought to New Zealand and released haphazardly on one occasion, but rather a systematic approach undertaken by settlers to establish brown trout in New Zealand. The involvement of humans is so great that the ‘independent dynamism of the natural world’ and the actions of people cannot be separated and there are no grounds for viewing the role of

\begin{flushleft}
\textsuperscript{32} Disease, both animal and human, is most consistent with a passive transfer although numerous plants and animals also played the part of stowaways.
\textsuperscript{33} One need only consider the subjects addressed in \textit{Making a New Land}, to see this; mining, the draining of swamps, the introduction of agricultural animals, the burning of bush, the establishment of exotic gardens… the list goes on.
\textsuperscript{35} Crosby, \textit{Ecological Imperialism}, 291.
\end{flushleft}
people as passive.\textsuperscript{36} It is clear that trout themselves exercised some agency in their introduction to new lands through natural migration, but humans overtly and intentionally facilitated the entire premise.\textsuperscript{37} Therefore, just as G. M. Thompson critiqued Darwin’s observation that British species had usurped indigenous flora and fauna in New Zealand on the basis that they were so heavily assisted by mankind, the application of ecological imperialism to the introduction of trout to New Zealand can be critiqued on the basis that it gives insufficient weight to human agency.\textsuperscript{38}

A further area where Crosby’s thesis is contested is with regard to his Darwinian supposition that European species are ‘superior’ to their Neo-European equivalents. Crosby is careful to never overtly identify European species as superior, stating: ‘There is little or nothing intrinsically superior about Old World organisms compared with those of the Neo-Europes…’\textsuperscript{39} However, the idea of European species having evolved amongst tougher ecological competition, and thus being better suited to survive, is implicit throughout his work in quotes like: ‘the biotas of the Neo-Europes may have been simpler than that of Europe…’\textsuperscript{40} This manifests itself in his unwillingness to acknowledge the reverse flow of organisms from the Neo-Europes to Europe. Similarly, Griffiths argues that: ‘There are still echoes of nineteenth-century social Darwinism in his twentieth-century ecological imperialism…’\textsuperscript{41} This is particularly evident in Crosby’s comments on the demise of Māori in the face of a wave of British settlement: ‘Nor were the Maori standing up to the European competition; the result was inevitable…’\textsuperscript{42} Crosby does subsequently acknowledge

\textsuperscript{36} This critique is a testament to the fact that Crosby’s thesis is broad, sweeping and somewhat overstated in places. Not every aspect of it will apply to every organic transfer from Old to New World.\textsuperscript{37} Discussions I have had with Rasmus Gabrielsson, a freshwater ecologist at the Cawthron Institute, suggest that because brown trout are anadromous they would likely have attained roughly the same geographic spread that they currently have if human involvement had ceased following the first couple of introductions. This cannot be confirmed, however, because of the assistance they did receive. It is further clear that rivers or lakes with natural barriers to the sea would not have been colonised by trout but for the involvement of people; Rasmus Gabrielsson, in discussion with the author, February 2017; Franklin, “Performing Acclimatisation”, 30-31.\textsuperscript{38} Thomas Dunlap, \textit{Nature and the English Diaspora: Environment and History in the United States, Canada, Australia and New Zealand}, (Cambridge: Cambridge University Press, 1999), 161.\textsuperscript{39} Crosby, \textit{Ecological Imperialism}, 291.\textsuperscript{40} Although he is careful to qualify this by stating: ‘This difference…is one from which we must be wary of drawing too many conclusions.’; Crosby, \textit{Ecological Imperialism}, 272.\textsuperscript{41} Tom Griffiths, “Introduction”, \textit{Ecology and Empire}, 4.\textsuperscript{42} Crosby, \textit{Ecological Imperialism}, 267.
that Māori bounced back demographically in the twentieth-century, although there are still echoes of a ‘fatal impact’ approach throughout his work.\(^{43}\)

In the original 1986 edition of *Ecological Imperialism*, subsequently amended to acknowledge the presence of eucalypts in Europe in the second edition, Crosby claimed that: ‘as of the middle of the nineteenth century, not one Australian or New Zealand plant had attained naturalisation in Britain, nor, as far as we know, anywhere else in Europe.’\(^{44}\) However, as David Young observes, the cabbage tree (*Cordyline australis*) has flourished in Torquay, England, since Victorian times and pohutukawa (*Metrosideros excelsa*) trees have existed in Spain and Portugal for centuries.\(^{45}\) Nor was it simply plants that were a part of the reverse flow of organisms from the Neo-Europes to Europe.\(^{46}\) In the middle of the nineteenth-century a fungus from California crippled European vineyards whilst raccoons colonised areas of Germany, Holland and Luxembourg.\(^{47}\) To this end, Young states: ‘In arguing the power of Old World plant invaders over New World ecologies, Alfred Crosby succumbed to this notion of overwhelming superiority and, in so doing, seriously overstated his case.’\(^{48}\) Imperial historian John MacKenzie affirms this, noting:

> In his determination to see biological imperialism as a one-way process, illustrative of the imperialist urges of the dandelion, he seemed to know little of the expansion of the eucalypt and Australian wattle, the depredations of the rhododendron, Japanese knotweed or Himalayan balsam, the territorial hunger of the grey squirrel, the mink or the New Zealand flatworm.\(^{49}\)

It is clear that brown trout flourished in New Zealand’s environment to the detriment of native species and, in this specific instance, there may be some veracity to the idea of New Zealand’s native fish, New World species, having evolved largely without


\(^{45}\) One pohutukawa in La Corunna, Spain, sparked controversy over which European nation discovered New Zealand when locals claimed it might be up to 500 years old, preceding James Cook’s voyage to New Zealand in 1769 or Abel Tasman’s in 1642; Ibid; Landcare Research, “Famous Tree Sparks Debate on Discovery of NZ”, [Accessed 7 November 2017: http://www.scoop.co.nz/stories/SC0109/S00020.htm].

\(^{46}\) This reverse flow is currently being researched by Ross Galbreath, building upon his work on the displacement of native species by introduced species; Ross Galbreath, “Displacement, Conservation and Customary Use of Native Plants and Animals in New Zealand”, *New Zealand Journal of History* 36, no. 1 (2002): 36-50.


\(^{48}\) Young, *Our Islands Ourselves*, 64.

predators and thus being highly susceptible to the introduction of an Old World species.\textsuperscript{50} However, recent research has shown that brown trout may be less well suited to the habitat changes associated with human activities, such as agriculture, irrigation and hydro-electric schemes, than many native species.\textsuperscript{51} This is particularly interesting bearing in mind that brown trout and the Pākehā largely responsible for the habitat changes can both be considered members of the portmanteau biota and should, by Crosby’s argument, be assisting each other’s colonisation.\textsuperscript{52}

Ecological imperialism, in the form set out by Alfred Crosby, is subject to two major limitations. Firstly, the concept endorses the idea of European species as wholly superior and ignores the reverse flow of species from the New World to Europe. Secondly, whilst it does not ignore the human element in the transferal of organisms it does diminish human agency, particularly with regard to the reasons why European species enjoyed the successes they did in the New World.\textsuperscript{53} Despite these limitations, there are elements to the theory that are difficult to deny. British migration to New Zealand is intrinsically linked with an ecological transformation, effected to utilise New Zealand’s environment to the migrants’ benefit. This was achieved in part by the intentional introduction of British species, albeit with often-unintended consequences. These species did, in many cases, work together, as Crosby suggests, to establish and succeed in their new environment. If we accept that brown trout were an agent of British colonisation then they played their role as a member of the portmanteau biota. As Crosby himself notes: ‘the [ecological] changes have been sufficient to make it [New Zealand] attractive to hundreds of thousands of European migrants, and to make it a Neo-Europe.’\textsuperscript{54} Brown trout assisted British colonisation by making migration to New Zealand more appealing and by displacing native species, directly and indirectly, in a manner that reduced Māori customary resources and brought them further within

\textsuperscript{50} Although this raises an interesting point as to why, if Old World species are superior, Atlantic salmon failed to establish in New Zealand whilst Pacific salmon from North America did. Perhaps the distinction should not be Old World and New, but northern and southern hemispheres.


\textsuperscript{52} Crosby’s study terminates in 1900, at which point it is likely that humans had assisted trout more than they had restricted them. However, similar arguments could still be made with regard to the effect on trout of gold mining run-off in the 1860s and saw and flax mills in the latter half of the nineteenth-century.

\textsuperscript{53} In particular, the extent to which many introduced species succeeded in New Zealand can be attributed to the overt assistance rendered to them by settlers.

\textsuperscript{54} Crosby, \textit{Ecological Imperialism}, 227.
the realm of colonial influence. If we adopt the metaphor of the violin, with each individual organism brought from Europe to New Zealand playing the role of a string, not every string has to assist colonisation for the violin of British colonisation to still play music. The introduction of an obscure aquatic weed may have played no role in British colonisation of New Zealand and some introduced species, like the rabbit, certainly played a negative role. But sufficient introduced organisms, both those intentionally and unintentionally introduced, did assist British colonisation and this permits ecological imperialism to remain a convincing theory. As a concept, it requires heavy revision to take account of the two major limitations set out above, and yet, if those limitations are acknowledged, and the argument were amended slightly, ecological imperialism would remain a compelling model to explain the success of European imperialism in the New World.

**Transnational comparisons**

The acclimatisation movement responsible for the introduction of brown trout, amongst a myriad of other species, was not unique to New Zealand, and comparisons with other nations offer valuable insight into transnational trends and themes. The collection and introduction of exotic animals far predated the first acclimatisation society. Throughout history there has always been a certain curiosity and prestige associated with possessing the exotic, that which is rare and limited. As British naturalist Christopher Lever notes: ‘Since early times – indeed, since the biblical days of Noah and his Ark – exotic wild animals have been recognised as prestigious presents and symbols of political power, and have been maintained in private collections by royalty and the nobility around the world…’\(^55\) The instinct to collect the exotic, and even to introduce and domesticate foreign species, is, therefore, not particularly novel. It was, however, given a new lease on life with the imperial expansion of Europe and the sheer number of exotic plants and animals that became available to European powers.\(^56\) As Ian Tyrrell notes, the institutional acclimatisation that ensued was: ‘…concerned with the systematic adaptation of the products of the

---


New World to the Old, and the Old World to the New…’ Accordingly, acclimatisation is inherently linked to the imperial expansion of Europe as it was the colonised lands, or those lands surveyed as a part of the imperial expansion, that provided so many of the exotic plants and animals brought to Europe from the fifteenth-century onwards and to which European species were subsequently introduced. Within the context of this broader acclimatisation movement there was a specific ‘aquaculture revolution’, deriving its origin in France, which led to a significant increase in the scientific understanding of both marine and freshwater fishes, their environments, and the manner in which they might be bred. Information on this subject, from both French and British sources, was frequently published in New Zealand newspapers prior to the actual introduction of British fishes. Writing of the acclimisation movement, David Kinsey observes that: ‘It was an inseparable part of a Western ideology of improving nature that became increasingly more complex through its engagement of science and state.’ This increase in knowledge concerning the requirements and techniques to artificially propagate fish, such as salmon and trout, was critical to the successful establishment of trout in New Zealand and further affirms the idea of pisciculture as imperial technology.

The establishment of official and organised societies seeking to promote acclimatisation originated in France with La Société Zoologique d’Acclimatation in 1854, and built on a strong French tradition of collecting exotic animals and plants. The concept quickly spread to Britain, and in 1860 the Acclimatisation Society of the United Kingdom was founded with pisciculturist Frank Buckland acting as secretary. The establishment of this society was reported throughout the British colonies of Australia and New Zealand and by the end of the following year each possessed their own acclimatisation society, with both the Victorian Acclimatisation Society and the somewhat dysfunctional early iteration of the Auckland

---

58 Kinsey, “Seeding the Water as the Earth”, 528.
59 Fish Culture in France.” Press, 6 April 1864, 4; “Fish Culture in England.”, *Lyttelton Times*, 5 May 1864, 3.
60 Kinsey, “Seeding the Water as the Earth”, 553.
Acclimatisation Society formed in 1861. Acclimatisation societies spread at a rapid rate, and by the end of the 1860s were a common feature of Antipodean society. The establishment of these societies also brought about a change in the direction in which plants and animals were transferred. Thomas Dunlap observed that: ‘The sixteenth-century voyagers ransacked the world, taking back whatever seemed interesting or profitable… [but with] settlement, the current began to flow more strongly in the other direction.’ Whilst acclimatisation societies existed across Europe, their spread throughout colonised lands was most strongly linked to the British Empire; as Tyrrell observes: ‘Acclimatisation, institutionally speaking, was preeminently a European and British Empire phenomenon.’ French societies acted in Algeria and French Polynesia and the Imperial Russian Society for the Acclimatisation of Animals and Plants conducted translocations of fur-bearing animals from the 1870s. The most ardent acclimatisers though, and those who had the greatest impact on their new environments, were British settlers who had migrated to the New World.

Australia, given its geographic proximity and close imperial, trade and migration links with New Zealand, is a natural point of comparison, particularly in light of the close connection and communication between the trans-Tasman acclimatisation societies. Australian settlers, like their New Zealand brethren, in many instances perceived their lands and waters to be devoid of desirable species, although possibly not to the same extent as New Zealand, and immediately sought to rectify this. As historian William Lines notes: ‘no antipodean invader ever entertained a sentimental vision of Australia as nature’s garden, a prelapsarian Eden – quite the opposite. To the British, Australia stood in need of redemption.’ However, Hobart based historian James Boyce challenges this conception with regard to Tasmania, noting its dramatically different

---

65 Tyrrell, True Gardens of the Gods, 22.
66 Ibid; Lever, They Dined On Eland, 181.
67 Untitled, Cornwall Chronicle, 16 March 1850, 172; “Royal Society of Van Diemen’s Land.”, Courier, 21 July 1852, 3.
climate and ‘ready access to cleared grasslands, fresh water, rich coastal resources and fresh meat and skins…’

Fig. 43: Victorian Acclimatisation Society grounds, Melbourne, c.1873-1882

Despite Boyce’s comments, it is clear that there was still a want for acclimatisation within Tasmania, as the Hobart Mercury stated: ‘What we require is the introduction of classes of animals not native to the colony, or hitherto acclimatized in it, but capable on their successful naturalization here, of serving useful purposes.’ Tom Griffiths writes of the motivations for acclimatisation in Australia: ‘Acclimatisation societies systematically imported species that were regarded as useful, aesthetic or respectably wild to fill the perceived gaps in primitive Australian nature.’ No trout or salmon swam in Australia’s streams, although, unlike New Zealand, mainland Australia did possess freshwater species such as the Murray cod (Maccullochella peelii) that offered both food and sport. Tasmania’s indigenous freshwater species, in contrast, were more akin to those of New Zealand with a number of species coexisting in both localities. The lack of freshwater sport or eating fish, in conjunction with the vastly more suitable climate and the relatively established society of Van

---

69 Ibid.
71 Untitled, The Mercury, January 24, 1863, 2.
Diemen’s Land, explains why it was Tasmania that first received trout and salmon in Australia.

The introduction of trout to Tasmania took a subtly different form to the introductions made to New Zealand, as attempts to introduce trout and salmon predated the establishment of acclimatisation societies. The early attempts to introduce trout to Tasmania, from as early as 1841 onwards, were organized either by individuals or by societies with an interest in acclimatisation such as the Royal Society of Tasmania. Furthermore, there was a more overtly economic motive to the introduction of trout to Tasmania than is evident in New Zealand as a result of Tasmania’s unique population dynamic. The 1864 introduction of trout and salmon to Tasmania was facilitated by the Tasmanian Salmon Commissioners, who were appointed by, and reported to, the Tasmanian government. They represent a far closer connection between government and acclimatisation than that which occurred in New Zealand. However, the Salmon Commissioners functioned in much the same way as the acclimatisation societies, albeit with a more specific brief. Once established in Tasmania, trout were then sent on to New Zealand and mainland Australia, although successful establishment of trout in mainland Australia was hindered by climatic conditions such as water temperature (see Fig. 43). Today, trout exist in the more temperate areas of Australia, particularly mountainous and forested areas of New South Wales and Victoria, but it is Tasmania that is the bastion of the Australian trout fishery. Given that New Zealand’s original supplies of brown trout came from Tasmania, there is an inherent connection between the acclimatisation movements in each country, and many of the techniques used to hatch and propagate trout came along the chain of imperial communication from Britain, to Australia, and on to New Zealand. Without the established trade and communication routes of the British Empire between Britain, Australia and New Zealand.

---

74 For more detail on the introduction of brown trout to Tasmania see Chapter Two.
75 In a similar vein the Philosophical Institute of Canterbury listed the acclimatisation of introduced animals as one of its objects; Jim McAloon, “The Christchurch Elite”, *Southern Capital: Christchurch, Towards a City Biography*, Eds. John Cookson & Graeme Dunstall (Christchurch: Canterbury University Press, 2000), 201; Franklin, “Performing Acclimatisation”, 25; “Royal Society of Tasmania.”, *Hobart Town Daily Mercury*, 24 January 1860, 2.
76 This is discussed in greater detail in Chapter Two; Untitled, *Mercury*, 23 May 1864, 2.
77 Although outside of Tasmania the introductions of trout and salmon were enacted by regional acclimatisation societies; “Introduction of Salmon.”, *Mercury*, 23 November 1861; Report of the Tasmanian Salmon Commissioners, 20 August 1862, Shelf Number PQ639.3755TAS, Allport Library, Hobart, Tasmania, Australia; William Murison, *New Zealand Parliamentary Debates* 1, no. 2 (1867): 961.
Zealand brown trout would not have arrived in New Zealand in 1867. The connection between the introduction of brown trout to New Zealand and the British Empire is further borne out by the ways in which British colonies assisted each other in furthering the goal of improving the land, common to British settlers in the New World.

Acclimatisation in North America offers a far stronger contrast to that in New Zealand. In the United States of America acclimatisation took a substantially different form, with Ian Tyrrell noting: ‘The United States lacked the strong, self-conscious acclimatisation movement noticeable after 1850 in many other of the white settlement societies derived from British rule.’\(^78\) This difference between the United States, which declared independence from Britain in 1776, and the British colonies of New Zealand and Australia adds further credence to the link between acclimatisation and empire. Whilst there is no doubt that the lack of imperial influence was a factor, the absence of an obvious acclimatisation movement in Canada suggests the reasons were more nuanced. Thomas Dunlap suggests that: ‘This phase of the European introductions was preeminently the reaction of a generation seeking to re-create the landscape of “home,” and that sentiment was far stronger in Australia and New Zealand than in North America.’\(^79\) Settlers in both Australia and New Zealand were commonly British-born in the 1860s, whereas North American settlement extended back 250 years. Thus, its largely American-born inhabitants had a far less immediate connection to Britain.\(^80\)

United States’ historian David Hackett Fischer observes that the first wave of British migrants to America did successfully replicate aspects of their unique home cultures.\(^81\) By the time the acclimatisation movement came into full force in the mid-nineteenth-century, this desire to recreate home may simply have run its course in the United States. Moreover, Tyrrell observed that, as a result of the political and intellectual break from Europe, American settlers had a different conception of the


\(^{79}\) Dunlap, “Remaking the Land”, 306.


relative value of New and Old World species. Fischer concluded that British rule in the United States fostered an American obsession with liberty and freedom, and the denouncement of European species in the nineteenth-century is a manifestation of this attitude. In this vein, American naturalist George Perkins Marsh wrote of the ‘superior sapidity of the American trout to the European species…’ Finally, Dunlap explains the lack of enthusiasm for acclimatisation by suggesting that: ‘the continent [North America] had a full suite of plants and animals, and introductions found little room.’ This is certainly true with regard to trout as, unlike New Zealand or Australia, North America possessed five varieties of trout: rainbow trout on the west coast, cutthroat trout (*Oncorhynchus clarki*) in the Rocky Mountains and some Pacific drainages, brook trout on the east coast, lake trout (*Salvelinus namaycush*) in the northern parts of the continent, and bull trout (*Salvelinus confluentus*) in the northwest. The combination of North American settlers having a less immediate connection to Europe or “home”, possessing indigenous flora and fauna of high utility and expressing less deference to European species meant that the acclimatisation movement simply never got a foothold in North America.

Given its relative wealth of salmonids, it is curious that the one area of the acclimatisation movement in which the United States was most active was the introduction and translocation of freshwater fish. In 1871, the United States Fish Commission was founded and began to distribute freshwater fish across the nation; however, the majority of the fish introduced were indigenous fish from the East Coast. The middle of the 1870s saw Californian pisciculturalists in communication with New Zealand acclimatisation societies and by 1877 they had commenced sending North American salmonids to New Zealand: first brook trout and quinnat

---

85 Dunlap, “Remaking the Land”, 304.
86 Not to mention a number of species of salmon: Atlantic salmon, quinnat salmon, pink salmon (*Oncorhynchus gorbuscha*), chum salmon (*Oncorhynchus keta*), coho salmon (*Oncorhynchus kisutch*) and sockeye salmon (*Oncorhynchus nerka*).
87 In recent years there has been a major push from anglers and fisheries management to protect native fish, particularly the cutthroat trout, that were displaced or hybridized following the introductions of rainbow, brown and brook trout; Tyrrell, *True Gardens of the Gods*, 23.
salmon, followed by rainbow trout.\footnote{The significant role California played in distributing pacific salmon and trout to New Zealand is in keeping with Tyrrell’s observation that ‘a de facto acclimatisation aesthetic did emerge [in California]; Tyrrell, \textit{True Gardens of the Gods}, 23; Untitled, \textit{New Zealand Herald}, 26 May 1877.} It was not until 1883 that the first introduction of brown trout to North America was made when Herr Von Behr sent brown trout ova from Germany to New York.\footnote{Hugh MacCrimmon & T.L. Marshall, “World Distribution of Brown Trout, \textit{Salmo trutta’}, \textit{Journal of Fisheries Research Board of Canada} 25, no. 12 (1968): 2532.} These ova were hatched at the Northville Hatchery in Michigan, and released in April 1884 into the Pere Marquette River.\footnote{Ibid.} It is possible that the anti-imperial attitude, outlined above, made German brown trout more appealing. Far more likely, however, is that Von Behr simply had a connection to someone in New York and that they personally orchestrated the introduction. In 1884 Canada received its first brown trout, British Loch Leven ova, and in 1885 the first British brown trout arrived in the United States.\footnote{Ibid.}

One explanation for the relative popularity of pisciculture compared with other aspects of acclimatisation, is that in 1857 Marsh claimed that the: ‘introduction of fish from distant waters, and their naturalization in their new homes is also practicable to an indefinite extent.’\footnote{Ibid.} On the whole, however, even the acclimatisation of freshwater fish in the United States took on a different form to New Zealand or Australia, with a far greater focus on acclimatising indigenous fish to areas of the continent beyond their natural range or of sending North American salmonids abroad. Again, this difference is largely explained by the detachment from Britain and the high utility of the indigenous fish, further endorsing the lack of familiar species as a core motivation for acclimatisation in New Zealand and Australia.

Finally, it is briefly worth comparing the acclimatisation movement with another great conduit of introduced species in New Zealand: the gardening movement. There are many similarities between these two movements because, as James Beattie observes: ‘In a new colony gardening and acclimatisation appealed at once to biblical injunctions to improve and restock the earth with useful plants and animals – particularly important considerations in a place that was perceived to be lacking in

\footnote{Marsh, quoted in Tyrrell, \textit{True Gardens of the Gods}, 24.}
useful species.’ 93 Effectively, the brief of acclimatisation societies to introduce beneficial animals and plants meant that there was an inherent overlap into gardening, even though societies exclusively focused upon horticulture existed alongside them. Because of their shared aspirations, in 1867 it was proposed to merge the Auckland Horticultural Society with the Auckland Acclimatisation Society, although this never eventuated. The following decade the main focus of the Hamilton branch of the Auckland Acclimatisation Society was horticulture, while the Canterbury Acclimatisation Society actively traded in Chinese plants. 94 Similarly, acclimatisation societies and gardens also frequently cohabited in spaces such as public domains or parks. 95

One marked difference in the gardening movement is the less exclusive focus on the introduction of British species, as compared with the acclimatisation movement, and far more Asian flora than fauna found their way to New Zealand. 96 Although species such as Indian rhododendrons retain a strong connection to the British Empire, their introduction, nonetheless, represents a departure between the acclimatisation and garden movements. These introductions of Asiatic plants also mark a departure between the transfer of agricultural plants, typically British or at the least European in origin, to those also brought New Zealand for reasons of beauty or novelty. Furthermore, gardening, especially in the twentieth-century, promoted the propagation of native plant species, and their translocation within New Zealand, in direct contrast to the acclimatisation movement’s fairly exclusive focus on introduced species. 97 As Helen Leach notes: ‘It was not always a case of colonial imitation of the ‘motherland’. 98 Gardening and acclimatisation in the nineteenth-century shared many

94 “Auckland Horticultural Society”, Daily Southern Cross, 18 January 1867, 5; Untitled, New Zealand Herald, October 9, 1874; Beattie, 250.
95 The Canterbury Acclimatisation Society had its grounds in Hagley Park bordering the Botanic Gardens and the Auckland Acclimatisation Society had its grounds within the Auckland Domain, which it shared with the Auckland Botanic Gardens.
96 There is a certain irony in the delight with which Chinese plants were viewed when one considers the xenophobia Chinese migrants were exposed to; James Beattie, “The Empire of the Rhododendron”, Making a New Land, 246-7.
97 Acclimatisation societies would collect native species so as to trade them with international societies, but these were rarely distributed within New Zealand; Helen Leach, “Exotic Natives and Contrived Wild Gardens: The Twentieth-Century Home Garden”, Environmental Histories of New Zealand, (Melbourne: Oxford University Press, 2002), 218.
98 Ibid.
of the same goals and both were reliant on imperial networks; however, subtle differences existed between each movement.

*The influence of ethnicity on the introduction of trout to New Zealand*

The connection between the introduction of brown trout to New Zealand and Britain is evident and indisputable. However, use of the term Britain, and particularly when referring to settlers as ‘British settlers’, is to ignore their specific ethnic identities. Historian of Irish migration Donald Akenson argues that: ‘Without consciously intending to do so, it appears that many (perhaps most) historians have systematically denied the complexity of the individuals and congeries of the Pākehā culture.’99 There has been a tendency to view New Zealand history through a bi-cultural lens, rather than a multi-cultural lens, as a dichotomy between Pākehā and Māori. This section will seek to explore the influence that the specific ethnicity of ‘British settlers’ had on the introduction of trout to New Zealand. The settlers who travelled from Britain to New Zealand in the nineteenth-century were made up of four ethnic groups: English, Irish, Scottish, and Welsh. Of these, only the English and Scottish can be seen to have demonstrated ethnically specific influences on the introduction of brown trout to New Zealand, and even then only in regions that overtly identified with one ethnicity.

Welsh migrants, in 1871, comprised a mere one per cent of New Zealand’s Pākehā population, so it is probably unsurprising that no Welsh element to the introduction of trout to New Zealand has been discovered.100 More surprising is that the Irish, who comprised a substantial 21 per cent of New Zealand’s Pākehā population in 1871, were equally absent.101 No aspect of my primary research has revealed an Irish component or characteristic to the introduction of brown trout to New Zealand. Alisdair Galbraith offers some explanation for this discovery by dividing New

---


100 This is not to suppose that those Welsh migrants in New Zealand were not proportionally represented in the acclimatisation movement, but simply that no distinct Welsh flavour in the introduction of trout can be evinced. This comment applies equally to Irish settlers; Ian Pool, Arunachalam Dharmalingam & Janet Sceats, *The New Zealand Family from 1840: A Demographic History*, (Auckland: Auckland University Press, 2007), 62.

101 Ibid.
Zealand’s Irish migrants into two groups: Irish Catholics, and Irish Protestants. Galbraith observes that Irish Protestants were: ‘Mostly…descendants of Scottish and English settlers who were “planted” in confiscated territories in Ireland…’ Within the 21 per cent of Pākehā society of Irish origin almost half were ethnically Scottish or English, and were less likely to exhibit identifiably Irish traits. Similarly, the geographic distribution of the Irish in New Zealand may explain their lack of influence on the introduction of trout as a significant proportion of early Irish migrants settled in Auckland, which lies at the northern latitudinal limit for brown trout in New Zealand. However, the best explanation for the absence of an Irish voice is also the most simple: the influence of ethnicity was extremely subtle and only manifested in areas of clear ethnic identification. Had the Irish comprised the dominant ethnic group in one specific area then a distinctly Irish characteristic to the introduction of brown trout in that region may have been demonstrable. This was not the case though and no grounds have arisen in my research to consider an Irish element to the introduction of trout to New Zealand.

Scots comprised 27 per cent of the Pākehā population in 1871 and were the most over-represented portion of the British populace in New Zealand. Their migration to New Zealand is synonymous with the Otago region, and whilst the Scottish element to the introduction of brown trout is only evident in Otago it is important to acknowledge that their migration patterns were more diverse (see Fig. 44).
Approximately 40 per cent of the Otago and Southland populations identified Scotland as their place of birth in the latter half of the nineteenth-century. Because the impact of the ethnic backgrounds of settlers on the introduction of trout was extremely subtle, this level of concentration of ethnicity is requisite in order to determine ethnic influences. Therefore, even within the Otago region, the Scottish influence is most evident in southern Otago, where the concentration of Scots was highest.

![Scottish emigration poster, 1884](https://natlib.govt.nz/records/23113318)

The most overt Scottish characteristic in the introduction of trout was whether trout fishing was to be permitted on a Sunday, representing an ethno-religious influence. In no other part of the country did this question arise in any substantive fashion. Scottish Presbyterianism was of a far more Sabbatarian bent than the Anglican Church of England or the Irish Roman Catholic Church; as Brad Patterson et al note: ‘strict observance of the Sabbath was more pervasive in Scotland than in any other part of

---

109 Auckland reported between 12 and 14 per cent, Wellington between 12 and 17 per cent and Canterbury between 12 and 15 per cent; Patterson, Brooking & McAloon, *Unpacking the Kist*, 58.
110 Identifying Scottish Presbyterian characteristics is further complicated by the fact that Scottish characteristics were not static but fluid, typified by the growing conservatism across the late nineteenth-century; Ibid, 135-7.
111 Ibid, 69.
the British Isles.'\(^{113}\) In the early 1880s whether trout fishing should be permitted on a Sunday was debated with arguments as wide ranging as that the fish were due a days rest, that landowner rights would be intruded upon unnecessarily or that poaching was most common on a Sunday.\(^ {114}\) However, these were simply a façade for Sabbatarianism, in keeping with Patterson et al’s observation that: ‘In Dunedin in the 1870s [Sabbatarian] conflict arose over such issues as Sunday travel, entertainments, sporting meets and opening hours for the Athaenaeum…’\(^ {115}\) Despite opposition, trout fishing on a Sunday was never prohibited, probably as a result of the strong English Anglican influence in the region. Attesting to the notion that these ethnic characteristics are most evident in areas of high ethnic concentration, anglers in the Scottish Presbyterian strongholds of Clinton and Clutha petitioned the Otago Acclimatisation Society, unsuccessfully, to ban fishing on a Sunday.\(^ {116}\) While no official ban was ever enacted, most members of the Otago Anglers Association opted to observe the Sabbath by abstaining from angling on a Sunday.\(^ {117}\) Trout fishing on the Sabbath also raises a conflict between religious observance and the self-improvement implicit in the colonisation of New Zealand, as many settlers desired the opportunity to engage in leisure activities and particularly to engage in those activities such as trout fishing that were perhaps unavailable to them in Britain.\(^ {118}\)

Linked in to this conflict is subtle evidence of a Scottish Presbyterian austerity or aversion to leisure in relation to the introduction of trout in Otago, with suggestions that trout fishing was ‘too indolent and luxurious a sport, by the bye, for a colonist…’\(^ {119}\) The focus on the introduction of trout to Otago appeared to have been slightly more motivated by having trout as a food source as compared with Canterbury and other regions. This may be in part explained by the fact that the Scottish Highlands experienced famine between 1846 and 1856 as a result of a potato blight. Thus Scottish settlers may have felt the need for a diversity of food sources more acutely than English settlers. Erik Olsen observed of Otago settlers: ‘All men enjoyed hunting and shooting, although this was for most a very utilitarian pastime,

\(^ {113}\) Ibid, 225.
\(^ {115}\) Patterson, Brooking & McAlloon, \textit{Unpacking the Kist}, 226.
\(^ {117}\) “Sunday Fishing.”, \textit{Otago Daily Times}, 1 October 1886, 4.
\(^ {118}\) Patterson, Brooking & McAlloon, \textit{Unpacking the Kist}, 226 & 236.
but many Scots-Presbyterians regarded entertainment or recreation divorced from serious purpose wicked.\(^\text{120}\) This endorses the notion of trout being introduced to Scottish Presbyterian Otago for more utilitarian reasons than elsewhere in the country, although it is also apparent that this viewpoint was not maintained throughout the period. Patterson et al suggest this approach was most apparent in the immediate wake of settlement, noting: ‘In New Zealand, too, there were new opportunities for leisure after the first establishment phase was past.’\(^\text{121}\) As the settlement became more established, and particularly in the aftermath of the capital injection of the Otago gold rush, leisure activities such as trout fishing became increasingly available resulting in the strong uptake of trout fishing in Otago.

English settlers comprised by far the largest percentage of the Pākehā population at approximately 50 per cent in 1871.\(^\text{122}\) To a certain extent they represent the default ‘British settler’, which results in certain difficulties disentangling specifically English characteristics of the introduction of trout from broader British characteristics. As Marjory Harper notes: ‘The origins of the New Zealand Company’s pioneers ensured that the infant colony was imbued with an English culture that for several generations continued to manifest itself in law, administration and religion, as well as in the built and natural environment.’\(^\text{123}\) Whilst English settlers were the largest ethnic groups in almost all New Zealand centres, an overtly English aspect to the introduction of trout is only evident in Canterbury. On this point Harper notes that: ‘…Christchurch – through its very name and ethos, along with its carefully manicured gardens and some of its architecture – was to present the most visible face of an English identity that elsewhere in New Zealand, as in other parts of the British Empire, was often obscured by more controversial or noisy ethnic groups.’\(^\text{124}\)

The specifically English impact on the introduction of trout pushes subtlety to its extreme. The only inference that can be drawn from English Canterbury is that it was

\(^{120}\) Erik Olssen, *A History of Otago*, (Dunedin: John McIndoe Ltd., 1984), 47.
\(^{121}\) Patterson, Brooking & McAloon, *Unpacking the Kist*, 224.
\(^{122}\) Pool, Dharmalingam & Sceats, *The New Zealand Family from 1840*, 62.
\(^{124}\) Harper, “Everything is English”, 38.
very slightly less egalitarian than the remainder of the country.\textsuperscript{125} In Canterbury there is far less support by the Canterbury Acclimatisation Society for private pisciculture compared with Otago and elsewhere, hinting at restricted access to trout more akin to England.\textsuperscript{126} Similarly, there is an absence of complaint surrounding the introduction of restrictions relating to trout fishing, such as licences, regulations and access limitations.\textsuperscript{127} Finally, there appears to be a belief amongst some Canterbury settlers that trout were the property of whoever owned the water, directly in keeping with English game laws.\textsuperscript{128} Overall, this inference is in keeping with Jim McAloon’s comment that: ‘Christchurch was long seen… as running against the grain of New Zealand egalitarianism.’\textsuperscript{129} This may be explained with regard to the introduction of trout by McAloon’s observation that many founding members of the Canterbury Acclimatisation Society were members of Christchurch’s social elite, and may have been the beneficiaries of an elitist English approach to trout fishing.\textsuperscript{130} However, this difference was incredibly subtle and Canterbury did not differ substantially from the remainder of the country, in keeping with the overarching Englishness of New Zealand.

Overall, it is the lack of ethnic influence on the introduction of trout that is most indicative of the broader role of ethnicity in nineteenth-century New Zealand. The lack of influence supports the argument that upon migration British settlers largely dropped their specific ethnic identities and, as James Belich puts it, adopted an ‘Us’ (English, Scottish, Welsh and Protestant Irish) and ‘Them’ (Māori and Catholic Irish) approach.\textsuperscript{131} This also suggests that it may be more appropriate to make distinctions on religious rather than ethnic grounds, further supported by Galbraith’s research on the Protestant Irish.\textsuperscript{132} Even though the differences observed in Otago were overtly linked to the Scottish settlers that called the region home, it was their religious

\textsuperscript{125} The extent to which New Zealand’s approach to trout was egalitarian will be addressed in the subsequent section.
\textsuperscript{127} I am hesitant to draw inferences from an absence, however it hints at the fact that the rules and regulations surrounding trout fishing were accepted slightly more readily in Canterbury as a result of the familiarity of English settlers with English game laws.
\textsuperscript{129} Jim McAloon, “The Christchurch Elite”, 201.
\textsuperscript{130} Ibid.
\textsuperscript{131} James Belich, quoted in King, \textit{Penguin History of New Zealand}, 175.
\textsuperscript{132} There is often a direct correlation between ethnicity and religion although the two are capable of acting independently; Galbraith, “The invisible Irish?”, 37.
affiliation, rather than their ethnicity that was the influential factor. The influence of ethnicity with regard to trout is summarised well by Patterson et al in stating: ‘This is not to suggest that some of the traits migrants brought with them were not still there, just that they were buried beneath the surface.’¹³³ There are very subtle differences in the introduction of trout that can be explained by ethnicity, but one really has to dig deep to find them.

**How egalitarian was the introduction of trout to New Zealand?**

One of the founding tenets of early New Zealand settler society was social mobility and implicit within this was a desire to make available pursuits and activities previously the domain of the elite. G. M. Thomson claimed that:

> They [settlers] recalled the sport which was forbidden to all but a favoured few, but which they had longed to share in – the game preserves, the deer on the mountains or in the parks, the grouse on the heather-clad hills, the pheasants in the copes and plantations, the hares and partridges in the stubbles and turnip fields, the rabbits in the hedgerows and sandy warrens, and the salmon of forbidden price in their rivers – and there rose up before their vision a land where all these desirable things might be found and enjoyed.

¹³⁴ David Young further notes that: ‘From the start, the intention of acclimatisation was to establish and exercise practices as of right in New Zealand that in Britain had been for elites only.’¹³⁵ There is a clear egalitarian intent in New Zealand society, and particularly in the introduction of sporting animals to New Zealand, and yet it is worth considering to what extent this intent translated into reality with regard to trout.

Settlers introduced trout to New Zealand with relatively little government support and, once established, trout could be fished for upon the purchase of an annual £1 licence from a local acclimatisation society.¹³⁶ This equates to between $160 and $200 today and is therefore comparable to, although slightly more expensive than, the adult season licence fee of $127 currently charged by Fish and Game.¹³⁷ On one level, this reflects an egalitarian approach, as this licence was available to anyone who could afford the fee. Therefore, there is certainly some basis for Geoff Park’s observation that:

> A key premise of Crown acclimatisation policy historically was that anybody should be able to take fish and game. This was underwritten by a very strong imperative to establish a system

¹³³ Patterson, Brooking & McAloon, *Unpacking the Kist*, 6.
¹³⁵ Young, *Our Islands Ourselves* 73.
¹³⁶ Government regulations did ensure some consistency between individual acclimatisation societies, although these societies also worked together to ensure consistency.
of game laws in New Zealand that did not have the restrictions which applied in Britain, where hunting and angling were pastimes of privilege.\textsuperscript{138}

The instigation of a licence fee, however, has the immediate effect of limiting access proportional to the size of the fee: the greater the fee, the greater the limitation. Opposition to trout fishing licences on the grounds of expense was expressed in the Wairarapa in 1888, with one letter to the editor querying: ‘Why is it that ‘freshwater fish are not yet within the reach of the poor man?’ Does the fact of a poor man eating a trout affect the increase of fish in our streams to a greater extent than it would do if eaten by a rich man?’\textsuperscript{139} Similarly, there was suggestion amongst settlers that there would only be a need to licence and regulate the trout fishery until trout became established, at which time such regulations would be rescinded.\textsuperscript{140} It must, therefore, be considered whether the ultimate manifestation of an egalitarian trout fishery, and thus an egalitarian society, would be one entirely devoid of regulation.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{fig45.png}
\caption{The acclimatisation society want to prevent fishing for trout with worm bait, 1906\textsuperscript{141}}
\end{figure}

\textsuperscript{138} Geoff Park, \textit{Effective Exclusion: An Exploratory Overview of Crow\n
n Actions and Maori Response}, (Wellington: Waitangi Tribunal, 2001), 541.
\textsuperscript{139} “Correspondence.”, \textit{Wairarapa Daily Times}, 8 March 1888, 2.
\textsuperscript{140} “Poachers and Poaching.”, \textit{Wairarapa Daily Times}, 20 May 1889, 2.
\textsuperscript{141} “The Catch of the Season.”, \textit{New Zealand Free Lance}, 7 July 1906, 12, [Accessed 6 December 2017: https://paperspast.natlib.govt.nz/newspapers/NZFL19060707.2.15.1].
Both the New Zealand Liberal leaders Richard Seddon and John McKenzie opposed the concept of a trout fishing licence on a number of occasions on the basis that it reproduced the game laws of Britain and would unduly favour people of privilege.\textsuperscript{142} Seddon, in characteristic tone, complained: ‘It was monstrous that they should be dragging a free country like this down to the level of older countries where the lord of the manor and large landed proprietors held sway over the rivers, to the injury of the general public.’\textsuperscript{143} Despite support from Sir George Grey, previously Premier and Governor of New Zealand, and other influential parliamentarians, Seddon and McKenzie were unable to effect this change. The views of Seddon and McKenzie support Ross Galbreath’s suggestion that: ‘despite the egalitarian rhetoric…within a few years a series of amendments to the Protection of Animals Act built up a system of game law which, while avoiding direct privileges for landowners, began by borrowing much else from the English system.’\textsuperscript{144} Many of the trout fishing regulations were also adopted from, or at the least influenced by, English game laws (see Fig. 45). This was particularly true of the nationally influential Canterbury Acclimatisation Society, who suggested it would: ‘pick out the laws of the best fishing society in England and adopt them.’\textsuperscript{145} Yet despite some aspects of English trout fishing regulations being present, there was a fundamental difference between the accessibility of trout fishing in New Zealand and Britain.\textsuperscript{146}

There was also a fundamental difference between the accessibility of trout fishing in New Zealand for Pākehā and Māori. As Young notes, the principle that game laws should exist for everyone was qualified: ‘“Everyone” did not mean Maori...’\textsuperscript{147} Māori uptake of fishing licences was minimal in the years immediately following the opening of New Zealand’s trout fishery, partially explained by the fact that paying a

\begin{itemize}
\item \textsuperscript{142} McKenzie recalled illegally salmon fishing in Scotland, and the fear he felt for the gamekeeper as a youth influenced his subsequent opposition to fishing licences; Tom Brooking, \textit{Lands for the People? The Highland Clearances and the Colonisation of New Zealand}, (Dunedin: University of Otago Press, 1996), 25; Tom Brooking, \textit{King of Gods Own: The Life and Times of New Zealand’s Longest-serving Prime Minister}, (Auckland: Penguin Books, 2014), 78.
\item \textsuperscript{143} Richard Seddon, \textit{New Zealand Parliamentary Debates} 64, (1889): 238.
\item \textsuperscript{144} Ross Galbreath, quoted in Young, \textit{Our Islands Ourselves}, 74.
\item \textsuperscript{145} ‘Acclimatisation Society,’ \textit{Star}, 26 February 1879, 4.
\item \textsuperscript{146} These regulations pertained particularly to protecting juvenile fish by instigating minimum size limits or to protecting spawning fish by dictating a fishing season.
\item \textsuperscript{147} Young, \textit{Our Islands Ourselves}, 73.
\end{itemize}
fee to take fish was an entirely foreign concept to Māori. However, if the £1 fee was prohibitive to sections of the Pākehā populace, it was doubly so for Māori, many of whom were quite independent of the settler economy. It therefore placed a disproportionately high cost upon Māori to access a resource whose introduction to New Zealand they may well have opposed. Finally, the regulations put in place by the Crown and the acclimatisation societies to protect trout actually served to preclude Māori from protecting their own resources, as trout predated upon native fish rapaciously. Thus, any argument for the egalitarian nature of trout fishing in New Zealand must contain a caveat addressing the failure to include Māori.

Often it was the private ownership of resources in Britain, rather than fees or regulations, which precluded people from fishing for trout. To facilitate public access to trout fishing in Canterbury, the chairman of the Christchurch Domain Board gave permission for people to ‘fish on and after 1st November next, on the right hand bank of the river, from the Fendalltown bridge to the stone bridge on the Riccarton Road.’ Similarly, in 1881, Arthur Bull wrote to the *New Zealand Herald* suggesting that: ‘a chain on each side [of the river] should be reserved, pointing out the boon which it would be to have free access to fishing streams.’ As a result of this, the Chief Surveyor of the Crown Lands Board recommended: ‘a reservation of 25 links along the banks of the Pokaiwhenua and other streams, tributaries of the Waikato, thereby securing free future access to the public for fishing, botanizing, and other purposes.’

McKenzie, responsible for the sweeping land reforms of the downland as Minister for Lands, argued that if public access to resources was not maintained: ‘the introduction of trout would be found to be very detrimental to the people, in place of being a benefit.’ This notion of public access to land is in keeping with Queen Victoria’s instructions to Governor William Hobson in 1840 that access to the coastline and

---

148 See Chapter Seven for a greater discussion of this subject; Sir Apirana Ngata, *New Zealand Parliamentary Debates* 211, (1926): 290.
149 A small number of free licences were issued to Te Arawa in the early part of the twentieth-century and settlements were reached with both Te Arawa and Ngati Tuwharetoa.
152 “Rights of Footway.,” *New Zealand Herald*, 8 September 1881, 3.
some streams should be maintained ‘for the recreation and amusement of the
inhabitants.’ McKenzie was a strong advocate for the ‘Queen’s Chain’, a strip of
public land along the coastline and waterways, and its first legislative endorsement is
found in the Land Act 1892, which McKenzie championed. However, the approach
taken to the reservation of a marginal strip in New Zealand has been inconsistent. As
a result, New Zealand land law expert, Brian Hayes, notes that: ‘The intended legacy
of public access is unfortunately not complete, for there are physical gaps in the
reservations in some places and other anomalies such as unexplained omissions which
have led to practical problems today.’ Although public access to waterways was not
absolute, rivers and streams were vastly more accessible than in Britain. Accordingly,
public accessibility to the resource represents the most egalitarian aspect of trout
fishing in New Zealand, and the ongoing ability to access rivers, lakes and streams
continues to be one of the defining features of New Zealand’s trout fishery today.
Here, however, Young again acknowledges that egalitarian for one did not mean
egalitarian for all: ‘The very egalitarianism of the colonists that scorned privileged
access for fishing on lakes and rivers deprived Māori, in yet another way, of their
Treaty rights.’ By prioritising public access to rivers and lakes, the Crown
diminished Māori property rights, and, it is argued, further compounded Māori
alienation as a result of the introduction of trout.

Ultimately, the extent to which the egalitarian intent behind the introduction of trout
to New Zealand was realised depends on the extent to which you see a licence fee as
prohibitive. Seddon, McKenzie and others would argue that trout fishing was not
egalitarian, as there was no ability for settlers to catch trout ‘as of right’. The licence,
while not cheap, was also not prohibitively expensive. Therefore, it did not represent
a significant barrier between settlers and the realization of their aspiration to fish for
trout. What regulations did exist, primarily protecting juvenile or spawning fish,
represent the management of a resource rather than an attempt to exclude people from
that resource. Most significantly, especially when contrasted with the great private
estates of Britain, public access to resources for recreational purposes was made a

154 Mark Hickford, “Law of the Foreshore and Seabed”, Te Ara – The Encyclopedia of New Zealand,
155 Brooking, Lands for the People?, 110 & 179; Land Act 1892, s110.
and Forestry, 2003), 2.
157 Young, Our Islands Ourselves, 113.
priority from the start in New Zealand. The comparative accessibility of trout represents the greatest point of separation between trout fishing in New Zealand and Britain, entirely consistent with the colonising mentality. This, more so than any other aspect, ensures that New Zealand’s trout fishery was vastly more egalitarian than Britain’s. In many ways the status of trout and trout fishing in nineteenth-century New Zealand is highly reminiscent of the Wakefieldian notion of a ‘Better Britain’ where some aspects of the English system were retained, but without the same absolute limitations.\(^{158}\) Access to trout fishing was not an automatic right of settlers, but it was highly attainable for the vast majority of settlers who desired it. The result was a fishery that in many ways, though not all, achieved the egalitarian intent of acclimatisers and settlers alike, provided you were Pākehā.

**Conclusion**

This analysis of various aspects of the connection between the distribution of brown trout and the British Empire has demonstrated just how intrinsic and fundamental the connection with Empire was in the introduction of brown trout to New Zealand. Brown trout were a product of British colonisation, in that they were brought to New Zealand by British settlers to fulfill the desires of settler society. However, they also exercised a role as an agent of British colonisation by creating an environment more appealing to prospective migrants and by bringing Māori further within the colonial realm of influence. This is not to say that they were a critical or essential factor in British colonisation but they were a factor as a member of the portmanteau biota, and thus the introduction of brown trout to New Zealand largely accords with Alfred Crosby’s idea of ecological imperialism.\(^{159}\) Crosby’s thesis requires revision to diminish the perception of the superiority of European species and peoples in light of the reverse Neo-Europe to Europe flow of organisms. Similarly, it is guilty at times of painting humanity in a passive light, which, with regard to the ecological impacts of the portmanteau biota in New Zealand, is to severely underestimate just how organized and intentional the majority of these introductions were. There were certainly significant transferals of organisms from Britain to New Zealand that occurred without active human involvement, but overall this balance needs to be redressed in Crosby’s thesis. When the introduction of brown trout to New Zealand is


\(^{159}\) Crosby, *Ecological Imperialism*, 269-293.
viewed within this framework, it highlights the need to reinforce the active role of people in the transference of organisms. However, with that limitation in mind, the introduction of trout to New Zealand is broadly consistent with Alfred Crosby’s ecological imperialism.

Transnational comparisons with acclimatisation in Australia and the United States reveal a number of informative themes. Firstly, these emphasise the significance of the absence of relatable species, and specifically an absence of freshwater fish akin to salmonids in both Australia and New Zealand, to the perceived need for acclimatisation.160 The presence of salmonids in North America coupled with the absence of an organized acclimatisation movement there only serves to emphasise this motivation. Where acclimatisation was most evident in the United States was in the American West where settlers encountered a less relatable environment, further affirming this notion.161 Secondly, this comparison strongly reinforces the link between acclimatisation and Empire. Knowledge, institutions and eventually animals and plants flowed along an imperial chain from Britain to Australia and New Zealand. The lack of imperial connection in the United States endorses this relationship between acclimatisation and Empire, although the situation is nuanced. Thirdly, acclimatisation in New Zealand and Australia was extremely similar with few substantial differences determinable. The motivations behind acclimatisation were similar in each country, as were the institutional structures that facilitated acclimatisation.162 In many instances, especially evident in terms of the introduction of trout, the acclimatisation societies of each nation also assisted each other to achieve the common colonising mentality of improving their lands. Most typical was for species to flow through Australia and thence on to New Zealand, either immediately or following establishment in Australia, although the opposite also occurred.163 The most substantial difference in terms of introducing trout was not philosophical or societal but environmental; mainland Australia’s climate was simply less suitable for trout than New Zealand or Tasmania.

160 Dunlap, “Remaking the Land”, 304.
161 Tyrrell, True Gardens of the Gods, 23.
163Untitled, Bruce Herald, 24 February 1882, 2.
The influence of ethnicity on the introduction of trout to New Zealand ranged between subtle and non-existent, with only Scottish Otago showing strong ethnic characteristics. Here, Presbyterian observation of the Sabbath resulted in debate surrounding whether fishing should be permitted on a Sunday. This debate was most evident in southern Otago, demonstrating that a very high proportion of one ethnicity was required in order for any ethnic or religious characteristic to become evident. Similarly, there is also a subtly different view with regard to leisure in the early days of Otago settlement, again attributable to the high proportion of Scottish Presbyterians in the region. Whilst some notion of a less egalitarian approach is evident in Canterbury, the actual application of this to the introduction of trout was minimal. Overall, the greatest inference that can be drawn is simply how subtle these ethnic differences were, attesting to the diminishing significance of ethnic divisions in the wake of immigration to New Zealand.

Finally, the introduction of trout to New Zealand, although not a perfect model of egalitarianism, resulted in far more accessible trout fishing than was available in Britain. There were limitations on access, mainly the economic requirement to purchase a licence, but the steps taken to reserve public land for recreational purposes ensured that upon this purchase anglers were able to fish for trout in a number of localities in their region. To this extent, the introduction of trout to New Zealand should be seen as consistent with its egalitarian intent, with the notable exception of Māori. Even though all of the above affirms the connection between Britain and the introduction of trout, the relatively egalitarian approach to trout fishing in New Zealand also demonstrates how the colonial setting of New Zealand influenced this connection: it was not a replication of Britain but, in keeping with the colonising philosophy, an improvement.

164 Olssen, A History of Otago, 47; Patterson, Brooking & McAloon, Unpacking the Kist, 224.
166 There are certain notable exceptions, such as the Scottish influence on education.
167 Young, Our Islands Ourselves, 73.
Conclusion

Summation of argument

This thesis has established not just the incredible story of how brown trout were introduced to New Zealand, but, more broadly, how valuable a case study they are for exploring key themes in environmental history. Across the 1860s, acclimatisation societies spread throughout New Zealand with the express intent of introducing valuable exotic species to supplement perceived deficiencies in New Zealand’s indigenous flora and fauna. Freshwater fish, specifically salmonids, were considered to be amongst the most glaring omissions from New Zealand’s environment, and attempts to rectify this omission formed a substantial part of the actions of the acclimatisation societies. The Canterbury and Otago Acclimatisation Societies, both based in Wakefieldian settlements with an immediate freshwater influence, led the charge, successfully introducing brown trout from Tasmania in 1867 and 1868 respectively.¹ Both societies constructed hatching facilities and breeding ponds and were, by the early 1870s, distributing trout throughout New Zealand. Whilst Auckland’s earliest introduction, in 1870, came direct from Tasmania, the majority of New Zealand received brown trout ova from the pioneering societies of Canterbury and Otago or from Andrew Johnson’s Opawa hatchery.² By the mid-1880s they were joined by the Wellington Acclimatisation Society’s facility in Masterton, which became a government fish hatchery in subsequent years.³ Through the actions of these societies, brown trout were carried by rail, on ships, on horseback and in pails in the hands of enthusiastic settlers, as well as a number of Māori, to some of the farthest flung corners of New Zealand. Today, they are a common sight in New Zealand’s rivers and lakes and provide recreation and a food source for New Zealanders and the substantial number of international tourists that travel here to target them.

The introduction of brown trout to New Zealand cannot be separated from the British colonisation of New Zealand and British imperial expansion generally. To a certain extent this is self-evident, as discussed in Chapter Nine, and yet there is a more

significant connection to colonisation than the mere fact that it was British colonists bringing a British fish to a new land. The philosophical grounding for introducing trout to New Zealand developed from a combination of established British nineteenth-century thinking and the unique environmental circumstances colonists found in New Zealand. The introduction of brown trout is, therefore, intrinsically linked to the settler mentality of improvement and the desire to recreate Britain, informed by a belief that they had a right to benefit from the land. The seemingly barren rivers presented settlers with an opportunity to improve the land, and to recreate the environment and recreational opportunities of Britain, by introducing brown trout. Thus, brown trout played the role of both a product and an agent of British colonisation.

The brown trout’s role as a product speaks to the self-evident aspects of its connection to the British colonisation of New Zealand, while its role as an agent alludes to the ways in which it actually assisted in the British colonisation of New Zealand. The establishment of brown trout, and particularly the relatively accessible nature of the fishing, made New Zealand a more attractive prospect for British immigrants and spoke to aspirations of social progression and the rural idyll implicit in British migration to New Zealand. The introduction of brown trout to New Zealand also provides the perfect case study against which to critique Alfred Crosby’s ecological imperialism. By considering the introduction in light of Crosby’s argument that the portmanteau biota was fundamental to the successful colonisation of the Neo-Europes, the case for brown trout as an agent of colonisation is strengthened. By predating on native fish, brown trout displaced Māori customary food sources, which,

---


in specific instances, resulted in Māori dependence on colonial assistance for survival. Their role as an agent of colonisation is, therefore, more nuanced than merely eliciting immigration or representing the realisation of settlers’ aspirations. Furthermore, this work demonstrates that even 30 years after *Ecological Imperialism* was written, Crosby’s thesis remains a valuable piece of scholarship, subject to the limitations noted in Chapter Nine.

This analysis of the introduction of brown trout to New Zealand also provides clarity on settlers’ perceptions of, and relationships with, Māori, as well as with indigenous flora and fauna. It establishes an argument for viewing brown trout, and other similar introduced species, as a part of the colonial machinery that alienated Māori from their lands and resources and brought them further within the colonial realm of influence. However, it also demonstrates the inherent complexity of the issue by establishing that some iwi actively sought the introduction of trout to their region to provide a food source. Ultimately, it suggests that even though some Māori opposed the introduction of trout the greater issue was with their subsequent inaccessibility and the regulations surrounding catching them. Thus, it provides direct evidence of the ideological dichotomy between Pākehā and Māori with regard to both fishing and resource management.8

Linked to this is an argument that introduced species were prioritised over native species as a result of settlers attempting to improve the land and recreate Britain. This prioritisation was presupposed by the Darwinian belief that New Zealand’s indigenous flora and fauna were destined to wilt and expire upon contact with the innately superior British species.9 Brown trout, specifically, were overtly prioritised through legislation and the intentional destruction of eels and shags. But, this thesis demonstrates that this approach was far more widespread and systematic than merely relating to trout. Accordingly, introduced species were prioritised through legislation, while native species were actively destroyed to ensure the successful establishment of introduced species and the economic profitability of industries based upon these


species. It further argues that this systematic prioritisation of introduced over native was fundamental to the environmental transformation of New Zealand by linking it to the clearing of land and the draining of swamps so as to graze introduced agricultural species.

Finally, this study demonstrates the significance of environmental factors in the introduction of trout specifically, as well as to nineteenth-century New Zealand generally. The immediate presence of fresh water, reminiscent of British trout streams, in both Christchurch and Dunedin explains in part their efficiency in introducing trout, while the lack of freshwater immediately proximate to both Auckland and Wellington explains their early focus upon the introduction of birds. This thesis confirms the caveat observed in Chapter One, that settlers were not entirely successful in their attempt to recreate Britain as a result of New Zealand’s differing environment. Brown trout could be successfully bred and distributed through the greater part of the country because of the suitable environmental conditions. However, because of Auckland’s northern latitude, and the associated warmth of the water during the spawning season, brown trout could not be bred easily in this region, confirming that aspects of Britain could not be recreated in their entirety across New Zealand. This also alludes to the fact that certain environmental commonalities between New Zealand and Britain were necessary to permit the introduction of trout at all, explaining why areas of mainland Australia struggled to establish a population. However, there is a more fundamental environmental factor at the very core of the desire to introduce trout to New Zealand: no trout were native to New Zealand. The environmental conditions and evolutionary patterns that resulted in a vast array of small migratory fish along with several species of eel, but no fish deemed comparable to a trout, created the perceived absence that settlers believed required rectifying. This notion is further attested to by the fact that North American settlers felt less need to acclimatise brown trout because of their naturally plentiful native varieties of trout, whereas New Zealand and Australian settlers saw immense value in the introduction of trout. The introduction of trout to New Zealand, informed by a wide array of

social and colonial factors, was first and foremost dictated by environmental considerations.

**How does this thesis modify the existing historiography?**

The historiography on the introduction of brown trout to New Zealand is, as explained in Chapter One, extremely minimal. Therefore, this thesis represents a fundamental shift in the historiography by providing the first comprehensive history of the introduction of brown trout to New Zealand. It documents the introduction of trout to four key New Zealand regions in unprecedented detail. To this extent, it contributes strongly to New Zealand regional history, as each chapter is capable of standing alone as a history of an aspect of that region. Furthermore, it is a national history of the introduction of brown trout to New Zealand and, in this capacity, provides critical examples and context to national characteristics and movements. By virtue of being both a regional and national history, subtle regional, ethnic and religious differences are elucidated. Its novelty is attested to by the number of previously unknown points that have only come to light through the in-depth primary research I have conducted. This statement applies broadly, as the majority of the information contained in this thesis has not been written about previously. More specifically, the significant role that Johnson personally played in the introduction of brown trout was rediscovered, having been diminished in the records and histories of the Canterbury Acclimatisation Society after a falling out between Johnson and the society.\(^\text{12}\) Similarly, this research establishes a very real possibility that rainbow trout were introduced to New Zealand in Auckland in 1877, a full six years prior to the generally accepted date for their introduction, 1883.\(^\text{13}\)

It also provides an important contribution to New Zealand environmental history by providing an in-depth case study that typifies a number of key and well-researched themes in this discipline. Contextualising the introduction of brown trout within the broader movement of improving the land and the attempts to recreate Britain gives this thesis far wider application than purely having regard to the acclimatisation movement. Accordingly, it will be of assistance in researching nineteenth-century

---


settler society, or any aspect of the relationship between British settlers and the New Zealand environment. Because these themes are so closely associated with the colonisation of New Zealand, it supplements existing colonial histories and extends the literature on the connection between colonisation and the introduction of foreign species. The contribution to colonial history is further strengthened by the transnational comparisons with the acclimatisation movements broadly, and the introduction of trout specifically, in Australia and the United States.

Perhaps the greatest contribution of this work, however, is the historical context given to the debates surrounding both indigenous resource management and the introduced-native divide. My research is focused on the nineteenth century, but these debates are modern, ongoing, and of major significance. Moving forward, New Zealand society will be forced to continue to come to terms with the impacts that people have intentionally effected upon our environment, including the introduction of foreign species, and this work will provide valuable context to that conversation. It will assist in viewing the actions of settlers in their appropriate context, in order to mitigate the condescension with which the actions of nineteenth-century settlers and their environmental consequences are commonly viewed. With specific regard to Māori, I believe the final word on Māori freshwater fishing rights has not yet been heard. Given the impact that the introduction of trout had upon Māori customary freshwater resources, and the complexity of this dynamic, the historical context my research provides will be invaluable when this topic is eventually reassessed in New Zealand. These contributions, in particular, have the potential to be of real world application and impact in the coming years.

Future research stemming from this project
The most significant area that I believe warrants further research following this project is the Māori perspective on the introduction of brown trout. Even though I am

14 Eric Pawson and Tom Brooking note the way in which environmental history, perhaps more so than other historical disciplines, has the potential to have real application to current environmental debates. Similarly, Richard White has written of the ways in which works such as this thesis provide a knowledge of, and a connection to, nature that may bridge the gap between “work” (industry and agriculture) and environmentalism; Eric Pawson & Tom Brooking eds., Making a New Land: Environmental Histories of New Zealand (Dunedin: University of Otago Press, 2013), 330 & 335; Richard White, ““Are you an environmentalist or Do you Work for a living?”: Work and Nature,” in Uncommon Ground: Rethinking the Human Place in Nature, William Cronon ed. (New York: W. W. Norton & Co, 1996), 171-185
satisfied that I have researched this comprehensively from the sources I was able to utilise, there are a number of Māori language sources that would add significant depth and perspective to my research. Most applicable are the various Māori language newspapers from the nineteenth and early twentieth centuries. The various government-published Māori newspapers, for instance, *Ko te Karere o Nui Tireni*, may offer a different perspective to that presented in English language papers, but they are unlikely to differ as markedly as independently owned Māori language newspapers. I envisage newspapers such as the Māori-owned *Te Wananga* will provide a uniquely Māori perspective that was not evident in English language sources. It is my intention to develop my reo, Māori language, so as to explore these resources in the future. My interest in ongoing research on this topic is further motivated by my belief in its application to future discussions of indigenous resource management and indigenous rights.

In writing this history, I am also acutely aware that I have largely depicted a male history. This is not through design, but is reflective of both the dominant gender of the individuals involved in introducing trout, as well as the source material I am reliant on. However, I believe there is a silent female voice that warrants future attention. Alexandra Dekker’s work touches upon this absence, particularly the role women played in the ensuing trout fishing industry, tying flies and working in retail shops.\(^{15}\) Newspapers, and particularly columns directed specifically at female readers, may provide some of the requisite information, but I expect more information to come through private sources such as letters and diaries. From Dame Juliana Berners, the first fly fishing author in the mid-fifteenth-century, through to the late Queen Mother, Elizabeth Bowes-Lyon, and industry titans, like Joan Wulff, there is a strong historic lineage of female trout anglers and it would be valuable to research how this manifested in New Zealand.

There are also two specific instances where international primary research that I was unable to do might offer greater insight. Firstly, it would be fascinating to conduct in-depth research in California to determine whether rainbow trout were in fact sent to Auckland in 1877. I undertook an examination of the available Californian

---

newspapers from the period and, although discovering information consistent with an 1877 introduction, was unable to find anything definitive.\textsuperscript{16} However, I believe that research into the records of the Californian fish hatcheries that were responsible for the 1877 shipment has the potential to solve this mystery. If proven, this would subtly rewrite an aspect of the history of the introduction of trout to New Zealand. Secondly, the suggestion that British interests in South America were responsible for the introduction of brown trout to Argentina and Chile could be substantiated by conducting research in these localities. Confirming this would offer evidence of the connection between the distribution of brown trout and the reach of Britain in its so-called ‘informal empire.’\textsuperscript{17} This would prove particularly interesting in light of the less overt British influence in South America compared with the formal empire countries of New Zealand or Australia.

Having researched the introduction of brown trout to New Zealand, and particularly the British imperial connection, I see significant potential in a comprehensive transnational history of the distribution of brown trout throughout the world. I believe this would provide valuable information on the connection between trout and empire, and facilitate a higher level of analysis. It would also shed further light on the introduction to New Zealand by providing greater levels of contrast. In particular, analysing the introduction of brown trout to countries such as India, which share New Zealand’s colonial heritage, has the potential to be extremely worthwhile. Comparing India’s starkly different environment with New Zealand would further clarify the importance of environmental factors in the introduction of trout. Similarly, the dramatically different population dynamic in India, where British settlers did not establish themselves to anywhere approaching the same degree as in New Zealand or Australia, would demonstrate whether widespread settlement was in fact critical to the introduction of trout. Of particular interest would be investigating whether brown trout were introduced solely for the benefit of the British living in India, or whether the introduction was in part motivated by requests from indigenous peoples. Because of the scope of this prospective project, and particularly the requisite primary

\textsuperscript{16} Possibly as a result of the less significant public interest in acclimatisation in the United States, as mentioned in Chapter Nine.

research, it does pose certain economic and pragmatic difficulties; however, it is worth considering as a long-term project.

The last word…

Ultimately, this research stands as testament to the complexity of humanity’s relationship with the environment and how our environmental ethos continues to evolve. Brown trout typify this complexity with their duality; on the one hand they have significantly displaced indigenous freshwater fish and in so doing have reduced Māori customary food sources, while on the other they provide a valued source of recreation and a rallying point for fresh water advocacy. As an avid angler, who derives immense pleasure from fly fishing for brown trout, I feel a certain dissonance when I contemplate how unnatural it is to be standing in a South Island backcountry stream, running through pristine beech forest, casting a dry fly at a fish thousands of miles from its native range. Other fly fishing cultures are increasingly embracing their native fish, but New Zealand’s freshwater anglers are doing just the opposite: justifying and encouraging the existence of an exotic species.

On some level this does not sit right with me, and yet, I take for granted the sparrow in the streets, the sheep in the fields, and almost every component on my dinner plate each night. Let alone the fact that my walk to college along Wellington’s waterfront would, but for many of the same reasons that motivated the introduction of brown trout, have been a swim. We often forget how fundamentally modified New Zealand’s landscape is, how irrevocably it was transformed in the nineteenth and early twentieth centuries. I try not to judge those British settlers who modified it, nor Māori who modified it before them, even though today I might advocate a different course of action. But I do wonder why we accept so many of these modifications as a part of our daily life, when others seem alien to us.

Would we today, with full knowledge of the implications, introduce brown trout to New Zealand if it had not been achieved in the 1860s? In 1989 McDowall thought so, but today I would disagree.18 I believe the entrenched ethos of preserving native

---

species, as well as the greater respect New Zealand society has for Māori customary rights and resources, would outweigh the recreational and economic benefits of brown trout. Furthermore, to paraphrase Allen Curnow, New Zealanders have learnt the trick of standing upright here. No longer do we seek to recreate Britain through the establishment of British species, but rather we seek to recreate home through the re-establishment of indigenous species and the removal of introduced predators. But choosing whether to introduce trout is not a choice we get to make, just as we cannot un-drain the swamps or un-fell the kauri forests. New Zealand’s brown trout are a product of our past and a part of our future. We cannot change it; all we can do is attempt to better understand it.

---

19 Although there is little evidence of an economic motivation for the introduction of brown trout, a tourism industry has subsequently developed around providing guided trips to target these fish. Curnow’s “Skeleton of the Great Moa in the Canterbury Museum, Christchurch” depicts a moa skeleton supported by iron crutches, reflective of New Zealand’s dependency on Britain. In concluding, he alludes to our impending autonomy in stating: ‘Not I, some child, born in a marvellous year; Will learn the trick of standing upright here’; Allen Curnow, “The Skeleton of the Great Moa in the Canterbury Museum, Christchurch”, in Vincent O’Sullivan, An Anthology of Twentieth Century New Zealand Poetry, 3rd ed. (Auckland: Oxford University Press, 1987), 91-2.
BIBLIOGRAPHY

Primary Sources

A. Archival

Alexander Turnbull Library

MSX-6844 Wellington Acclimatisation Society Minute Book Sep 1884-May 1899
MSX-6846 Wellington Acclimatisation Society Letter Book Dec 1894-Feb 1896
MSX-6855 Reports of the Wellington Acclimatisation Society 1884-1929
MSX-6860 Wellington Acclimatisation Society Cashbook 1872-1884

Allport Library, Tasmania

CRO.Q639.2TAS Royal Commission on the Fisheries of Tasmania: Report of the Commissioners, 1883
PQ597.55BLA Copy of Journal of Mr. Alexander Black, in charge of salmon ova, in the S. Courling, 1860
PQ639.3755TAS Report of Salmon Commissioners 1864

Archives New Zealand, Auckland Regional Office

R16224480 William Murray, Constable, Rotorua - Fish Being netted by Natives at Ngongotaha - asking for help

Archives New Zealand, Christchurch Regional Office

R10224219 Canterbury Acclimatisation Society Annual Reports 1864-1884
R10224220 Canterbury Acclimatisation Society Annual Reports 1885-1915
R22188105 ‘Fitzgerald (emigration) to Superintendent – on fish and game to the colonies, 27/05/1859’
R22678640 ‘A. M. Johnson to Provincial Secretary – Trout Ova Available from Tasmania’

Auckland Museum

MS11 Williamson, J. W., Letter to A. T. Pycroft Re Auckland Acclimatisation Society
SF87 ANN Auckland Acclimatisation Society Annual Reports 1868-1897
Hobart Reading Room, Linc Tasmania
TLP570.6TAS  Rules and objects of the Tasmanian Acclimatisation Society, 1864

Hocken Collections
93-023/44  Otago Acclimatisation Society: Reports re Catches of Fish, 1889-1890
MS378/R  Otago Acclimatisation Society Annual Reports
MS378/V  Typescripts of Missing Otago Acclimatisation Society Annual Reports, 1866-1880

B. Published
Books


Official Publications

*Appendices to the Journal of the House of Representatives* 1868
*New Zealand Gazette* 1889
*New Zealand Parliamentary Debates* 1867-1926
*Papers and Proceedings of the Royal Society of Tasmania* 1888
Acts

*Animals Protection Act 1880*
*Fisheries Protection Act 1877*
*Protection of Certain Animals Act 1861*
*Protection of Certain Animals Act 1865*
*Protection of Certain Animals Amendment Act 1866*
*Salmon and Trout Act 1867*
*Urewera District Native Reserve Act 1896*
*Water Conservation (Kawarau) Order 1997.*

Case Law

*Taranaki Fish and Game Council v McRitchie*, High Court, Wellington, AP No. 19/97, 14 May 1998, Neazor & Greig JJ.

*Wi Parata v Bishop of Wellington* (1877) 3 NZ Jur (NS) SC 72.

Newspapers

New Zealand

The frequency with which these newspapers were published varied between daily, bi-weekly, weekly or monthly, even within specific newspapers across this period. The sources that proved most valuable were the major daily papers.

*Auckland Star*, Auckland, 1873-1942
*Bay of Plenty Times*, Tauranga, 1909
*Bruce Herald*, Milton, 1864-1889
*Bush Advocate*, Dannevirke, 1905
*Colonist*, Nelson, 1883
*Clutha Leader*, Balclutha, 1876-1884
*Daily Southern Cross*, Auckland, 1853-1876
*Dominion*, Wellington, 1908
*Evening Post*, Wellington, 1865-1889
*Evening Star*, Dunedin, 1881-1886
*Fielding Star*, Fielding, 1901
*Hawera and Normanby Star*, Hawera, 1886
*Hawke’s Bay Herald*, Napier, 1883-1896
*Lake Wakatip Mail*, Queenstown, 1874-1885
Lyttelton Times, Lyttelton, 1851-1869
Nelson Evening Mail, Nelson, 1880-1896
New Zealand Colonist and Port Nicholson Advertiser, Wellington, 1842
New Zealander, Auckland, 1853-1859
New Zealand Herald, Auckland, 1866-1929
New Zealand Observer, Auckland, 1906
New Zealand Spectator and Cook’s Strait Guardian, Wellington, 1848-1852
New Zealand Times, Wellington, 1900
North Otago Times, Oamaru, 1865-1885
Oamaru Mail, Oamaru, 1912
Otago Daily Times, Dunedin, 1862-1922
Otago Witness, Dunedin, 1852-1889
Poverty Bay Herald, Gisborne, 1904
Press, Christchurch, 1864-1906
Southland Times, Invercargill, 1862-1888
Star, Christchurch, 1868-1891
Thames Star, Thames, 1908
Timaru Herald, Timaru, 1865-1881
Tuapeka Times, Lawrence, 1881-1885
Wairarapa Daily Times, Greytown, 1881-1889
Wairarapa Standard, Greytown, 1867-1883
Wanganui Herald, Wanganui, 1872-1873
Wellington Independent, Wellington, 1863-1874

Australian

Argus, Melbourne, 1860
Colonial Times, Hobart, 1853
Cornwall Chronicle, Launceston, 1863-1866
Courier, Hobart, 1852
Launceston Examiner, Launceston, 1855-1866
Mercury, Hobart, 1858-1867
Tasmanian Morning Herald, Hobart, 1866
Victorian Farmers Journal and Gardeners Chronicle, Melbourne, 1861

United States of America
Secondary Sources

A. Books


**B. Articles**


McDowall, R. M. “Crying wolf, crying foul, or crying shame: alien salmonids and a biodiversity crisis in the southern cool-temperate galaxioid fishes?” *Reviews in Fish Biology and Fisheries* 16, no. 3 (2006): 233-422.


### C. Unpublished Theses


D. Online

Alexander Turnbull Library.
http://mp.natlib.govt.nz

Archives New Zealand.
http://archives.govt.nz/
https://www.flickr.com/photos/archivesnz/

Auckland Libraries.
https://www.aucklandlibraries.govt.nz/

Australian Data Archive.
http://hccda.anu.edu.au/

Australian Bureau of Statistics.

Christchurch City Libraries.
http://christchurchcitylibraries.com

Department of Conservation.
http://www.doc.govt.nz

Fish and Game New Zealand.
https://fishandgame.org.nz/

Hocken Collections.
http://hocken.recollect.co.nz

Inland Fisheries Service, Tasmania.
https://www ifs.tas.gov.au

Museum of New Zealand Te Papa Tongarewa.
https://collections.tepapa.govt.nz

National Academy of Science, Engineering & Medicine, United States of America.
http://www.nas.edu/evolution/


National Library of Australia.
http://trove.nla.gov.au

National Library of New Zealand.
https://natlib.govt.nz

Outstanding Rivers.
http://www.outstandingrivers.org.nz

Papers Past.
https://paperspast.natlib.govt.nz

Picture Victoria.
http://www.picturevictoria.vic.gov.au

Scoop.
http://www.scoop.co.nz/

State Library of Queensland.

State Library of Victoria.

Te Ara – Encyclopaedia of New Zealand.
https://teara.govt.nz/

Otago University Research Heritage.
http://otago.ourheritage.ac.nz/