

# **Phylogeography of Carnivorous Snails from Northland**

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## **ABSTRACT**

Landsnails of the subfamily Paryphantinae are active carnivores on earthworms and other snails. Most species are endemic to Northland, New Zealand, are several are of conservation concern, being threatened by habitat destruction and rat predation. Moreover, the relationships among the various species and, indeed, their grouping in one subfamily are controversial. Here we report a fully resolved evolutionary tree based on the COI mitochondrial gene, which shows the relationships amongst species, as well as various populations of several named and unnamed taxa. When the groups of related populations are plotted on a map, however, the patterns revealed do not match with the expectations derived from the recent geological history of Northland.

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