

Islands in the snow: Ecology, systematics and biogeography of the New Zealand beetle genus *Protodendrophagus* (Coleoptera: Silvanidae: Brontini)

John Marris ^{*1}, Ben Wiseman ¹

¹ Ecology Department, Lincoln University

Tectonic activity, the emergence of the Southern Alps, and subsequent periods of glaciation have had a major impact on the evolution of New Zealand's biota. The New Zealand endemic beetle genus *Protodendrophagus* (Coleoptera: Silvanidae: Brontini) is restricted to high altitude (>1400 m) habitats - a trait that is otherwise unknown within the family Silvanidae worldwide. Once thought to be rare and restricted to the northern part of the South Island, recent field studies have revealed the specific microhabitat of *Protodendrophagus* and found it to be widely distributed across the South Island. The combination of high altitude habitat and flightlessness means that *Protodendrophagus* populations are effectively isolated to 'islands in the snow', making the genus an ideal subject to investigate how geological forces have influenced its evolution. We report on the latest findings from morphological and molecular investigations and discuss the ecology, systematics and biogeography of the genus.

