

## Phylogenetics of New Zealand weevils

Richard Leschen <sup>\*1</sup>, Talia Brav-Cubitt <sup>1</sup>, Thomas Buckley <sup>1</sup>, Sam Brown <sup>2</sup>, Steve Davis <sup>3</sup>

<sup>1</sup> Landcare, Auckland

<sup>2</sup> Plant & Food, Auckland

<sup>3</sup> American Museum of Natural History, New York

Folks may be familiar with New Zealand species like the Giraffe Weevil, *Lasiornychus barbicornis* Lacordaire (Brentidae), Spear Grass weevils (*Hadrampus* Broun) and a number of the strange cryptically coloured genera of Eugnomini. But these icons are just a small part of the New Zealand fauna, which contains approximately 1200 described species placed in 243 genera. There are many lesser-known groups that are equally attractive or bizarre that have not been fully revised or completely understudied. Sufficed to say, weevils require a hard taxonomic look so that their composition and phylogenetic relationships are better understood. One tiny litter dwelling weevil that's been bounced about is the enigmatic *Geochus* Broun, a genus that has been placed within several groups (Enteminae (Brachyderini), Cyclominae, Curculionini (Cryptoplini, Diabathrariini, Geochini, and Ramphini), and Molytinae (Cryptorhynchini, Phryxini)). We examine the phylogenetic relationships of New Zealand weevils based on COI and 28s from exemplars of most genera to determine their phylogenetic placements within a regional sampling as a backbone to further research leading to a full revision of the fauna.

