

Review of the Pictrotini (Cryptophagidae)

Richard A. B. Leschen *¹, Matthew L. Gimmel ²

¹ Landcare Research, New Zealand Arthropod Collection, Private Bag 92170, Auckland, New Zealand

² Department of Biology, Faculty of Education, Palacky University, Hnevotinska 3, CZ-75515, Olomouc, Czech Republic

The family Cryptophagidae is a worldwide group with cryptic habits. There are few taxonomic specialists and the beetles are small, brown and often confused with other fuzzy beetles in collections. Taxonomic study requires careful dissections, patience and verve. One student of the group, Tapan Sen Gupta, never published on cryptophagids and instead dealt mainly with look-a-likes now in Erotylidae. All said, we like them, maybe as a form of self-punishment and self-denial to avoid working on other charismatic groups that could attract funding. The gondwanan Pictrotini were defined by Roy Crowson (1980) and have been treated in larger family-group reviews and systematic studies by John Lawrence. The Juan Fernandez species were revised (Leschen and Lawrence 1993) and a catalogue of the tribe has been published (Leschen and Gimmel 2012). We are revising the genera and recognize 22 genera with 13 genera described as new from Australia, Papua New Guinea, New Zealand, and South America (Chile, Ecuador). Several members of Pictrotini depart from primitively fungal feeding habits to feeding on fern spores (*Cryptothelypteris* Leschen & Lawrence) or plant pollen (some *Ostreacryptus* Leschen). Most members are flight-capable, but several lack hind wings (e.g., *Picrotus* Sharp (New Zealand), *Neopicrotus* Leschen (Chile and Australia), *Thortus* Broun (New Zealand)), or contain species that are both winged and apterous (e.g., *Ostreacryptus*). Gigantism occurs in the apterous genus *Thortus* with most mainland New Zealand species rather small (ranging from 1.5 to 2.0 mm) and one species from the subantarctic Auckland Islands with a length of 3 mm. Features of the group that are used to define generic limits include the pronotal margins with a glabrous space, pronotal tumidities, evaporative areas that are associated with glandular ducts and pores, postcoxal lines, connation of the abdominal ventrites, and abdominal spiracle diverticulae and texture.

