

HYDROPHILIDAE:

Hydrobiusina

(Coleoptera)

A.E.Z. SHORT

Abstract

The species of the hydrophiline subtribe Hydrobiusina (Coleoptera: Hydrophilidae) of New Caledonia are reviewed. In addition to the New Caledonian endemic *Limnocyclus puncticeps* BALFOUR-BROWNE, a second species, *Limnoxenus zealandicus* (BROUN), is newly recorded from New Caledonia.

Key words: Coleoptera, Hydrophilidae, Hydrophilini, Hydrobiusina, New Caledonia.

Introduction

The Hydrobiusina are the smallest of three principle subtribes within the diverse Hydrophilini, with less than 30 species in five genera irregularly distributed in all biogeographic regions (HANSEN 1999). In New Caledonia, only one species has previously been recorded, the endemic *Limnocyclus puncticeps* BALFOUR-BROWNE. Here, a second hydrobiusine species, previously known from Australia and New Zealand, *Limnoxenus zealandicus* (BROUN) is recorded for the first time from New Caledonia. The subtribe is further represented in the Australian/Pacific Region by the rare genus *Hybogralius* ORCHYMONT in Western Australia, and by a remarkable radiation of *Limnoxenus* MOTSCHULSKY in the Hawaiian Islands (SHORT & LIEBHERR 2007).

Material and methods

Specimens were examined using a light microscope to 100 × magnification. Terminology largely follows HANSEN (1991) with the exception of the term “mesoventrite” for “mesosternum”.

KSEM	Natural History Museum, University of Kansas, Lawrence, USA
NHML	The Natural History Museum, London, U.K. (formerly British Museum of Natural History); M. Barclay, R. Booth
NMW	Naturhistorisches Museum Wien, Vienna, Austria; M.A. Jäch, A. Komarek
QMB	Queensland Museum, Brisbane, Australia; G. Monteith

List of Localities

(Locs. 2001/NC: leg. Balke & Wewalka)

Loc. 2001/NC 16 (JÄCH & BALKE 2010: Figs. 13, 14, 17): Mt. Panié, 1350 m a.s.l., 8.–9.XI.2001. Slowly flowing stream close to alpinist hut, stream pools as well as dry but moist stream bed feeding into the pools, underneath of stones, in forest.

Loc. 2001/NC 33: Aoupinié, 15 km SW Ponérihouen, 500–700 m a.s.l., 14.XI.2001. Stream bed in montane forest, slope very steep and rocky; water almost stagnant but clear, small residual pools with leaves and root mats.

Loc. 2001/NC 34 (JÄCH & BALKE 2010: Fig. 16): Aoupinié, 25 km SW Ponérihouen, 700 m a.s.l., 14.XI.2001. Western slopes of the range, stream bed, almost dry, only two small puddles left, bottom with leaves, sandy/rocky; shaded.

Key to species of *Hydrobiusina* of New Caledonia

- 1 Habitus as in Fig. 2. Meso- and metatibiae without natatory setae. Mesoventrite with a strongly projecting, laminar sternal keel. Dorsal ground punctation fine... *Limnoxenus zealandicus*
- Habitus as in Fig. 1. Meso- and metatibiae with natatory setae. Mesoventrite without laminar sternal keel. Dorsal ground punctation extremely coarse..... *Limnocyclus puncticeps*



Figs. 1–2: Habitus of 1) *Limnocyclus puncticeps*, and 2) *Limnoxenus zealandicus*.

Limnocyclus BALFOUR-BROWNE

Limnocyclus puncticeps BALFOUR-BROWNE, 1939

Limnocyclus puncticeps BALFOUR-BROWNE 1939: 375.

TYPE MATERIAL EXAMINED: **Holotype** ♀ (NHML): “Type [red disc]”, “Loc. Paompai [= Pombeï]/ Date 15.9.14/ Coll. P.D. Montague./ New Caledonia Exped.”, “New Caledonia./ P.D. Montague./ 1918-87”, “*Limnocyclus*/ *Puncticeps*. Type/ J. Balfour-Browne det.”.

ADDITIONAL MATERIAL EXAMINED:

NORTH PROVINCE: 1 ex. (QMB): Mt. Panié summit, temporary pools, 1600 m, 9.XI.2001, leg. C.J. Burwell;
1 ex. (QMB): Mt. Panié, 450–950 m, 14.V.1984, leg. G. Monteith & D. Cook.

2 exs. (NMW, KSEM): Loc. 2001/NC 16; 1 ex. (NMW): Loc. 2001/NC 33; 1 ex. (NMW): Loc. 2001/NC 34.

DIAGNOSIS: Habitus as in Fig. 1. Total length 8.7–9.2 mm. Among the Hydrobiusina, this species can easily be distinguished by the presence of swimming setae on the meso- and metatibiae. The lack of a well-developed projecting keel on the mesoventrite and presence of coarse dorsal punctures will differentiate this species from *Limnoxenus zealandicus*.

DISTRIBUTION (Fig. 3): Endemic to New Caledonia.

REMARKS: This unusual species is apparently restricted to higher-elevation mountain streams and their temporary pools.

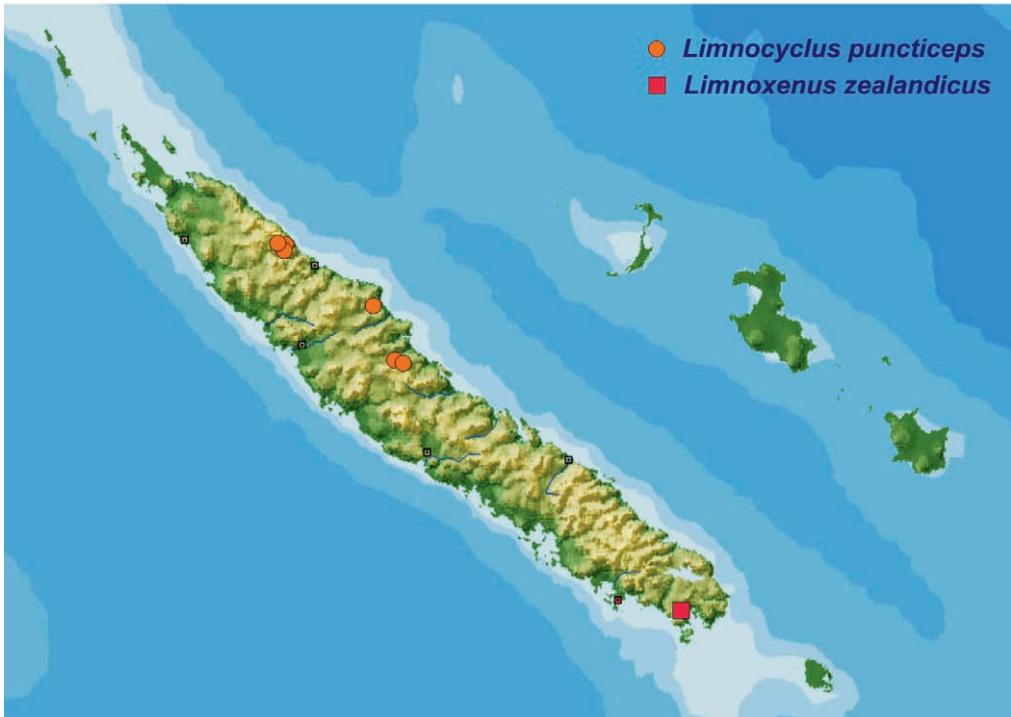


Fig. 3: Geographical distribution of *Limnocyclus puncticeps* and *Limnoxenus zealandicus* in New Caledonia.

***Limnoxenus* MOTSCHULSKY, 1853**

***Limnoxenus zealandicus* (BROUN, 1880)**

Hydrobius zealandicus BROUN 1880: 77.

MATERIAL EXAMINED (NEW CALEDONIA):

SOUTH PROVINCE: 1 ♀ (KSEM): Mont Dore District, Rd. CR7, 1.8 km E. rd. CR9, 22°18'32.7"S 166°48' 35.7"E, 145 m, 23.VIII.2008, leg. A. Gervais “#F1”.

DIAGNOSIS: Habitus as in Fig. 2. Total length 8.2–11.0 mm. This species may be distinguished from *Limnocyclus puncticeps* by the lack of natatory setae on the meso- and metatibiae, the well-

developed keel of the mesoventrite, and by the comparatively weakly impressed dorsal ground punctation.

DISTRIBUTION (Fig. 3): Australia, New Zealand, New Caledonia.

REMARKS: This species is relatively common and wide-spread in Australia, but rare in New Zealand from where it was originally described. The single female collected in New Caledonia is slightly teneral, but falls within the range of variation found in specimens I have examined from Australia.

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