

HYDROPHILOIDEA: Checklist

(Coleoptera)

A. KOMAREK

Abstract

A checklist of all 46 currently known species of Hydrophiloidea (Coleoptera: Hydrochidae, Hydrophilidae, Spercheidae) from New Caledonia is presented.

Key words: Coleoptera, Hydrophiloidea, Hydrochidae, Hydrophilidae, Spercheidae, checklist, distribution, New Caledonia.

Introduction

The first comprehensive checklist of the Hydrophiloidea known from New Caledonia was compiled by ORCHYMONT (1937), who listed 18 species of Hydrophilidae and one species of Spercheidae.

Since then, the knowledge of the hydrophiloids of New Caledonia has improved greatly, particularly due to field work by I. Löbl (1997, 1998), G. Wewalka & M. Balke (2001), and by M.A. Jäch (2009). A total of 46 hydrophiloid species is now known from New Caledonia. These are listed below, together with short notes on their distribution.

Subfamily names are avoided here, because recent phylogenetic analyses, e.g. BERNHARD et al. (2009), suggest paraphyly of Hydrophilinae raising doubts about the current subfamily classification.

Literature data are based on the following papers: BALFOUR-BROWNE (1945), FIKÁČEK (2010a–c), GENTILI (2010a–b), HANSEN (1999), KOMAREK (2010), NASSERZADEH (2010), ORCHYMONT (1937), SHORT (2010a, b), and WATTS (1987, 1988).

Checklist of the Hydrophiloidea of New Caledonia

Abbreviations: AU: Australia, NC: New Caledonia, NG: New Guinea

Spercheidae

1. *Spercheus platycephalus platycephalus* MACLEAY, 1825 Oriental Region, AU, Pacific Region

Hydrochidae

2. *Hydrochus roepnaraini* MAKHAN, 1994 NC

Hydrophilidae (excl. “sphaeridiine lineage”)

3. *Anacaena novacaledonica* KOMAREK, 2010 NC
4. *Anacaena rara* KOMAREK, 2010 NC
5. *Anacaena silvatica* KOMAREK, 2010 NC
6. *Anacaena violacea* (GENTILI, 1996) NC

7. <i>Anacaena wewalkai</i> KOMAREK, 2010	NC
8. <i>Berosus albipes</i> FAUVEL, 1883	NC
9. <i>Berosus australiae</i> MULSANT & REY, 1858	AU, NC
10. <i>Berosus distigma</i> FAUVEL, 1883	NC
11. <i>Chaetarthria incisa</i> FIKÁČEK, 2010	NC
12. <i>Chasmogenus nitescens</i> (FAUVEL, 1883)	AU, NG, Solomon Islands, NC, Fiji
13. <i>Enochrus elongatulus</i> (MACLEAY, 1871)	AU, NC, Cook Islands
14. <i>Enochrus esuriens</i> (WALKER, 1858)	Asia, AU, Pacific Region
15. <i>Enochrus maculiceps</i> (MACLEAY, 1871)	AU, Pacific Region
16. <i>Enochrus malabarensis</i> (RÉGIMBART, 1903)	Oriental R., AU, NC
17. <i>Helochares foveicollis</i> (MONTROUZIER, 1860)	AU, NG, NC
18. <i>Hydrophilus australis</i> MONTROUZIER, 1860	Vanuatu, NC
19. <i>Hydrophilus brevispina</i> FAIRMAIRE, 1879	AU, NC
20. <i>Laccobius elevatus</i> FAUVEL, 1883	NC
21. <i>Laccobius maculatus</i> (SATÔ, 1966)	NC
22. <i>Laccobius novaecaledonicus</i> (SATÔ, 1966)	NC
23. <i>Laccobius serratus</i> GENTILI, 2010	NC
24. <i>Laccobius wewalkai</i> GENTILI, 2010	NC
25. <i>Limnocyclus puncticeps</i> BALFOUR-BROWNE, 1939	NC
26. <i>Limnoxenus zealandicus</i> (BROUN, 1880)	AU, NC, New Zealand
27. <i>Paracymus metallescens</i> (FAUVEL, 1883)	NC
28. <i>Sternolophus marginicollis</i> (HOPE, 1842)	Oriental Region, AU, NG, Vanuatu, NC, Fiji

“Sphaeridiine lineage”

29. <i>Aculomicrus alesi</i> FIKÁČEK, 2010	NC
30. <i>Aculomicrus reticulatus</i> FIKÁČEK, 2010	NC
31. <i>Cercyon nigriceps</i> (MARSHAM, 1802)	cosmopolitan
32. <i>Coelostoma fabricii</i> (MONTROUZIER, 1860)	Oriental Region, AU, Vanuatu, NC, Hawaii
33. <i>Dactylosternum abdominale</i> (F., 1792)	cosmopolitan
34. <i>Dactylosternum auripes</i> FAUVEL, 1883	NC
35. <i>Dactylosternum circumcinctum</i> FIKÁČEK, 2010	NC
36. <i>Dactylosternum helleri</i> ORCHYMONT, 1925	NC
37. <i>Dactylosternum kanakorum</i> FIKÁČEK, 2010	NC
38. <i>Dactylosternum montaguei</i> BALFOUR-BROWNE, 1939	NC
39. <i>Kanala bipunctata</i> FIKÁČEK, 2010	NC
40. <i>Kanala loebli</i> FIKÁČEK, 2010	NC
41. <i>Kanala montaguei</i> BALFOUR-BROWNE, 1939	NC
42. <i>Kanala punctiventris</i> FIKÁČEK, 2010	NC
43. <i>Kanala reticulata</i> BALFOUR-BROWNE, 1939	NC
44. <i>Psalitrus altipaniensis</i> FIKÁČEK, 2010	NC
45. <i>Psalitrus kuscheli</i> FIKÁČEK, 2010	NC
46. <i>Psalitrus lapita</i> FIKÁČEK, 2010	NC

Discussion

A total of 46 species of Hydrophiloidea is known from New Caledonia. At least three of these species have not been collected in New Caledonia since more than hundred years: *Berosus australiae*, *B. distigma* (endemic) and *Hydrophilus brevispina*. They all may be regarded as locally extinct. However, the New Caledonian species of *Berosus* LEACH have not been revised taxonomically and it therefore cannot be excluded that the specimens recorded from New

Caledonia (Canala, leg. Coste) under the name *B. australiae* by FAUVEL (1883) in fact belong to another species.

32 species of Hydrophiloidea (70 %) are regarded as endemic. It should be mentioned here, that, according to the poor description, the status of *Hydrochus roepnaraini* cannot be confirmed at present; the holotype (a male, deposited in the Bishop Museum) was collected by Everett J. Ford Jr. in 1948 in “New Caledonia”, locality details are unknown (N. Evenhuis, personal communication) and no other specimen has ever been found. The genus *Hydrochus* LEACH is represented by 26 species in the Australian Region (HANSEN 1999, SHORT & HEBAUER 2006).

In the Museum of Natural History (Wrocław University, Poland) there are two males belonging to *Cercyon marinus* THOMSON, and *C. tristis* (ILLIGER, 1801). According to the label data, both of these males were collected in New Caledonia (Grande Terre, South Province, Rivière Bleue Provincial Park, 22°05.9'S 166°38.3'E, at light, 19.XII.2006, leg. M. Wanat & R. Dobosz). Both species are widely distributed in the Northern Hemisphere. Provided that the label data are correct, these species must have been introduced in New Caledonia rather recently. Remarkably, the locality, where these specimens were collected is one of the most undisturbed areas of New Caledonia, where introduced beetles are rarely encountered. Therefore, these two species shall not be included in the “Checklist of the Hydrophiloidea of New Caledonia” as long as their presence in the South Pacific is not confirmed by additional specimens.

Cercyon inquinatus WOLLASTON was recorded from New Caledonia by FAUVEL (1903). However, according to FIKÁČEK (2010b) this might be based on a confusion with a hitherto unidentified *Cercyon* sp.

Acknowledgements

I am grateful to Chris H.S. Watts (Adelaide, Australia) for the determination of *Hydrophilus australis* and to Martin Fikáček (Praha, Czech Republic) for the determination of some questionable species of *Cercyon* LEACH. Andrew E.Z. Short (Lawrence, Kansas, USA) is thanked for critically reading the manuscript. Neal Evenhuis (Honolulu, Hawaii, USA) provided the information on the holotype of *Hydrochus roepnaraini*.

References

- BALFOUR-BROWNE, J. 1945: Aquatic Coleoptera of Oceania (Dytiscidae, Gyrinidae, and Palpicornia). – Occasional Papers of Bernice P. Bishop Museum XVIII (7): 103–132.
- BERNHARD, D., RIBERA, I., KOMAREK, A., BEUTEL, R.G., 2009: Phylogenetic analysis of Hydrophiloidea (Coleoptera: Polyphaga) based on molecular data and morphological characters of adults and immature stages. – *Insect Systematics & Evolution* 40: 3–41.
- FAUVEL, A. 1883: Les coléoptères de la Nouvelle-Calédonie et dépendances avec descriptions, notes et synonymies nouvelles. – *Revue d'Entomologie* 2 (12): 335–360.
- FIKÁČEK, M. 2010a: Hydrophilidae: The genus *Chaetarthria* Stephens – description of a new species from New Caledonia and notes on *C. nigerrima* (Blackburn) from Australia (Coleoptera), pp. 263–269. – In: Jäch, M.A. & Balke, M. (eds.): Water beetles of New Caledonia (part 1). – *Monographs on Coleoptera* 3: IV+449 pp.
- FIKÁČEK, M. 2010b: Hydrophilidae: Sphaeridiinae (Coleoptera), pp. 323–364. – In: Jäch, M.A. & Balke, M. (eds.): Water beetles of New Caledonia (part 1). – *Monographs on Coleoptera* 3: IV+449 pp.
- FIKÁČEK, M. 2010c: Hydrophilidae: The genus *Kanala* Balfour-Browne (Coleoptera), pp. 365–494. – In: Jäch, M.A. & Balke, M. (eds.): Water beetles of New Caledonia (part 1). – *Monographs on Coleoptera* 3: IV+449 pp.

- GENTILI, E. 2010a: Hydrophilidae: The genus *Paracymus* Thomson (Coleoptera), pp. 257–262. – In: Jäch, M.A. & Balke, M. (eds.): Water beetles of New Caledonia (part 1). – Monographs on Coleoptera 3: IV+449 pp.
- GENTILI, E. 2010b: Hydrophilidae: The genus *Laccobius* Erichson (Coleoptera), pp. 283–295. – In: Jäch, M.A. & Balke, M. (eds.): Water beetles of New Caledonia (part 1). – Monographs on Coleoptera 3: IV+449 pp.
- HANSEN, M. 1999: Hydrophiloidea (Coleoptera). – In: Hansen, M. (ed.): World Catalogue of Insects. Vol. 2. – Stenstrup: Apollo Books, 416 pp.
- KOMAREK, A. 2010: Hydrophilidae: The genus *Anacaena* Thomson (Coleoptera), pp. 271–282. – In: Jäch, M.A. & Balke, M. (eds.): Water beetles of New Caledonia (part 1). – Monographs on Coleoptera 3: IV+449 pp.
- NASSERZADEH, H. 2010: Hydrophilidae: The genus *Sternolophus* Solier (Coleoptera), pp. 251–255. – In: Jäch, M.A. & Balke, M. (eds.): Water beetles of New Caledonia (part 1). – Monographs on Coleoptera 3: IV+449 pp.
- ORCHYMONT, A. d' 1937: Check list of the Palpicornia of Oceania (Coleoptera, Polyphaga). – Occasional Papers of Bernice P. Bishop Museum XIII (13): 147–160.
- SHORT, A.E.Z. 2010a: Review of the subtribe Acidocerina of the Southwest Pacific islands (Coleoptera: Hydrophilidae: Hydrophilini), pp. 297–318. – In: Jäch, M.A. & Balke, M. (eds.): Water beetles of New Caledonia (part 1). – Monographs on Coleoptera 3: IV+449 pp.
- SHORT, A.E.Z. 2010b: Hydrophilidae: Hydrobiusina (Coleoptera), pp. 319–322. – In: Jäch, M.A. & Balke, M. (eds.): Water beetles of New Caledonia (part 1). – Monographs on Coleoptera 3: IV+449 pp.
- SHORT, A.E.Z. & HEBAUER, F. 2006: World Catalogue of Hydrophiloidea – additions and corrections, 1 (1999–2005) (Coleoptera). – Koleopterologische Rundschau 76: 315–359.
- WATTS, C.H.S. 1987: Revision of Australian *Berosus* Leach (Coleoptera: Hydrophilidae). – Records of the South Australian Museum 21 (1): 1–28.
- WATTS, C.H.S. 1988: Revision of Australasian *Hydrophilus* Muller [= Müller], 1764 (Coleoptera: Hydrophilidae). – Records of the South Australian Museum 22 (2): 117–130.

Dr. Albrecht KOMAREK

Naturhistorisches Museum, Burgring 7, A – 1010 Wien, Austria (albrecht.komarek@aon.at)

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Monographs on Coleoptera](#)

Jahr/Year: 2010

Band/Volume: [3](#)

Autor(en)/Author(s): Komarek Albrecht

Artikel/Article: [Hydrophiloidea: Checklist \(Coleoptera\) 243-246](#)