

# Haliplidae

## (Coleoptera)

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### Abstract

*Haliplus (Phalilus) oberthuri* GUIGNOT, 1935 (Coleoptera: Haliplidae) is the only species of this family known from New Caledonia. It is wide-spread in Australia and has been collected in New Caledonia in the 19<sup>th</sup> century, but it was never found in that Archipelago again. A redescription of *H. oberthuri* is provided. New faunistic data, based mainly on material recently collected in Australia are presented. *Haliplus oberthuri* is recorded for the first time from New South Wales.

**Key words:** Coleoptera, Haliplidae, *Haliplus oberthuri*, *Phalilus*, new record, Australia, New South Wales, New Caledonia.

### Introduction

The Haliplidae of the Australian Region were revised recently by VONDEL (1995), who listed a total of 14 species from Australia, one of which, *Haliplus oberthuri* GUIGNOT, 1935, was reported also from New Caledonia. Two specimens of *H. oberthuri* were collected in New Caledonia in the 19<sup>th</sup> century, but no other specimens have ever been collected in that Archipelago.

In the Australian Region the genus *Haliplus* is represented by three subgenera: *Liaphlus* GUIGNOT, *Neohaliplus* NETOLITZKY and *Phalilus* GUIGNOT. *Phalilus* may be distinguished from the others by the presence of basal pronotal plicae and a medial ridge on the last abdominal ventrite.

*Haliplus oberthuri* is the type species of the subgenus *Phalilus* GUIGNOT, 1935, which includes two species (*H. oberthuri* and *H. storeyi* VONDEL, 1995), occurring in northern and northeastern Australia and in New Caledonia.

For straightforward species identification we here reproduce the relevant parts from the revision of Australian Haliplidae (VONDEL 1995).

The specimens examined are deposited in the following collections:

|       |  |
|-------|--|
| CBV   | Collection Bernhard J. van Vondel, Hendrik-Ido-Ambacht, The Netherlands            |
| CLH   | Collection Lars Hendrich, München, Germany   |
| IRSNB | Institut royal des Sciences naturelles de Belgique, Brussels, Belgium; P. Limbourg |
| MCZ   | Harvard University Museum of Comparative Zoology, Cambridge, USA; P.D. Perkins     |
| MNHN  | Muséum national d'Histoire naturelle, Paris, France; H. Perrin                     |

*Haliplus (Phalilus) oberthuri* GUIGNOT, 1935

*Haliplus bistriatus*: FAUVEL 1883: 335 (misidentification); HELLER 1916: 239 (misidentification); GUIGNOT 1935a: 36 (misidentification).

*Haliplus oberthuri* GUIGNOT 1935b: 167 (orig. description), 1956: 290; VONDEL 1995: 64 (lectotype designation, re-description); WATTS 2002: 61 (check list); VONDEL 2005: 64 (catalogue).

TYPE LOCALITY: New Caledonia, South Province, Nouméa.

TYPE MATERIAL (examined by VONDEL 1995): **Lectotype** ♂ (MNHN): “N. Caled.; TYPE; Det. Dr. Guignot, Haliplus s.g. Phalilus oberthuri Guign. type; bistriatus Fauvel; LECTOTYPE ♂ designated by B.J. v. Vondel 1992, Haliplus sg. Phalilus oberthuri Guignot 1935”. **Paralectotype** ♂ (MNHN): “N.elle Caledonie, Noumea, ex coll. Gambey, R. Oberthür det.; ♂, PARALECTOTYPE, Haliplus (Phalilus) oberthuri Guign.”.

The date of collecting of the lectotype is not exactly known. According to FAUVEL (1883: 335) the collector should be Théophile Savés. The paralectotype comes from the collection of A. Gambey, whom FAUVEL (1882) also acknowledges as a donor of specimens. However, specimens deposited in the Gambey collection came from various collectors: “MM. Bougier, Lécard, Coste, Hayes, etc.” (FAUVEL 1882: 219). Among material cited by FAUVEL (1882) for various Carabidae there is some indication that the collection Gambey might have included also specimens collected by Savés. Thus, the paralectotype might in fact also have been collected by Savés. The three specimens deposited in the IRSNB (see below) might therefore have been collected together with the type material.

## ADDITIONAL MATERIAL EXAMINED:

## AUSTRALIA:

QUEENSLAND: 1 ♂ (CLH): “Australia: S QLD, Bundaberg reg., 2 km W Woodgate, swamp, 33m, 27.IX.2006, 25.07.325S 152.30.270E, L. & E. Hendrich leg. (QLD 57)”; 1 ♀ (MCZ): Yungaburra, Atherton Tableland, 30.III.1932, Australia Harvard Expedition; 1 ♂ (CBV): Brisbane.

NEW SOUTH WALES: 1 ♀ (CLH): “Australia: N NSW, 20 km NE Taree, Jon’s River R. to Pacific Hwy, Jon’s River SF, 16m, 18.X.2006, 31.47.105S 152.42.251E, L. & E. Hendrich leg. (NSW 81)”.

## NEW CALEDONIA:

SOUTH PROVINCE: 1 ex. (IRSNB): “Coll. R. I. Sc. N. B. Nouvelle Calédonie [printed] Anse Vata marais 7 rec Savés [handwritten] ex coll. Fauvel [printed]”, “Coll. et det. A. Fauvel [printed] Haliplus bistriatus Wehnc. [handwritten]”; 1 ex. (IRSNB): “Coll. R. I. Sc. N. B. Nouvelle Calédonie [printed] Anse Vata marais - sept. rec Savés [handwritten] ex coll. Fauvel [printed]”, “Coll. et det. A. Fauvel [printed] Haliplus bistriatus Wehnce [handwritten] R.I.Sc.N. B. 17.479 [printed]”; 1 ex. (IRSNB): “Coll. R. I. Sc. N. B. Nouvelle Calédonie [printed] Anse Vata marais - sept. rec Savés [handwritten] ex coll. Fauvel [printed]”, “Coll. et det. A. Fauvel [printed] Haliplus bistriatus Wehn. [handwritten] R.I.Sc.N. B. 17.479 [printed]”.

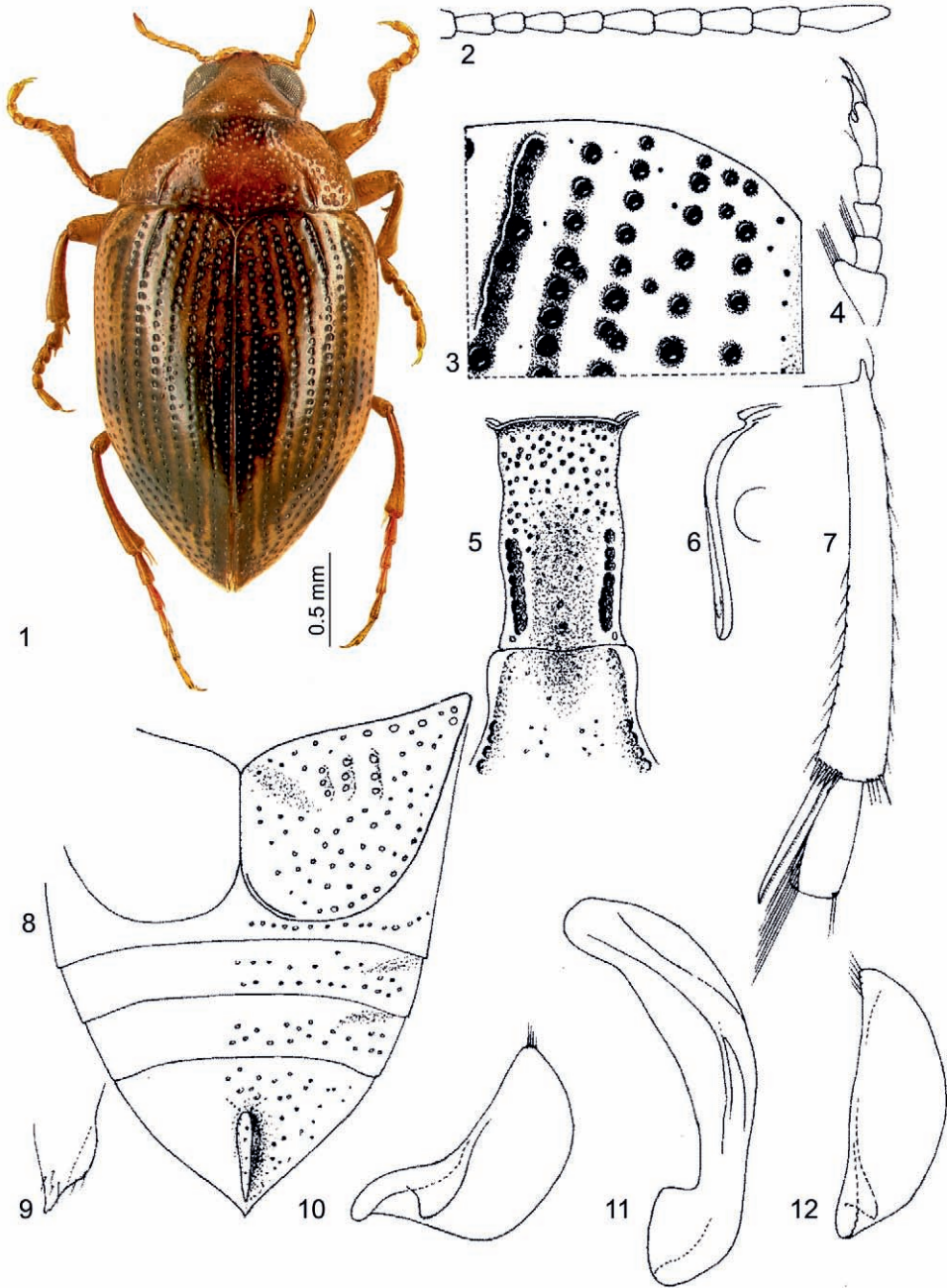
DIAGNOSIS: This species is recognized by the pronotal plicae and the strong ridge on the last ventrite (Figs. 8–9).

DESCRIPTION: Measurements: Total length 3.0–3.3 mm, width 1.6–1.9 mm. Body broad, parallel in the middle (Fig. 1).

Head: Yellow-red, antenna yellow (Fig. 2), palpi yellow, maxillary palpus with last segment more than half the length of penultimate segment. Punctuation anteriorly dense, sparser on vertex. Distance between eyes  $1.2 \times$  width of one eye.

Pronotum: Yellow-red, dark blotch along anterior margin. Lateral border strongly convex, finely margined, front corners strongly bent downwards. Base wider than base of elytra, long curved plicae at base reaching over half length of pronotum, strongly impressed between plicae. Punctuation on disc dense, strong basally (Fig. 3).

Elytra: Yellow-red, dark lines on primary puncture-rows 1+2 interrupted between dark punctures in basal part, on rows 3–7 continuous, on rows 8–9 widely interrupted (Fig. 3). Primary punctures except in basal part of rows 1–2 very dense and strong. About 45 punctures in row 1. Basal 6–10 punctures of row 5 confluent, forming clear plica. Secondary punctures very sparse and usually very small. All punctures darkened except in unstriped parts of outer rows. Suture apically briefly margined. Laterally completely margined, margin in the middle hidden from above.



Figs. 1–12: *Haliplus oberthuri* (male): 1) habitus in dorsal view (Bundaberg, Queensland); 2) antenna; 3) punctures near elytral base and suture; 4) tarsus of male foreleg; 5) prosternal and metaventral processes; 6) prosternal process in lateral view; 7) hind tibia; 8) metacoxal lobes and abdominal sternites; 9) last abdominal sternite in lateral view; 10) left paramere, lateral view; 11) penis, lateral view; 12) right paramere, lateral view (Figs. 2–12 after VONDEL 1995).

Underside: Body yellow-red; legs yellow-red, darkened towards coxae; elytral epipleura yellow, reaching sternite 5, strongly punctate in anterior and posterior part. Prosternal process wide and irregularly parallel-sided, strongly impressed in apical half, strongly punctate grooves on marginal ridges, densely and strongly punctate on anterior half, clearly margined on anterior edge (Figs. 5–6). Metaventral process with lateral ridges, formed by a row of strong punctures, strongly impressed towards apical part, very sparsely and weakly punctate (Fig. 5). Metacoxal lobes widely rounded at apical part, finely margined on apical corner, punctures fairly strong and dense, in central part some coarse punctures (Fig. 8). Punctures on sternite 5+6 not forming clear row, last sternite with strong ridge in the middle (Figs. 8–9). Hind tibia without setiferous striole, longer tibial spur clearly longer than first tarsal segment (Fig. 7).

Male: Pro- and mesotarsomeres 1–3 widened, tarsomere 1 more dilated ventrally, only tarsomeres 1–2 with sucker hairs on ventral side. Protarsal claws unequal in length (Fig. 4), mesotarsal claws slightly unequal in length. Penis and parameres as in Figs. 10–12.

**DISTRIBUTION** (Fig. 13): Australia (Queensland, New South Wales: first record!), New Caledonia.

Just like *Canthydrus serialis* FAUVEL (Coleoptera: Noteridae), which was also described from Anse Vata, *Haliplus oberthuri* has not been collected in New Caledonia since more than one hundred years and one might suppose, that the New Caledonian record could in fact be based on a label mistake; however, the rediscovery of three other rare water beetle species, that have not been collected since more than one hundred years, e.g. the three dytiscids *Laccophilus seminiger* FAUVEL in 1958, *Allodessus bistrigatus* (CLARK) in 2007, and *Sternhydrus atratus* (FABRICIUS) in 2008, suggests that *Haliplus oberthuri* may indeed have occurred in New Caledonia in the 19<sup>th</sup> century.

**HABITAT:** In Australia, *Haliplus oberthuri* occurs primarily in lentic habitats. According to the original description (FAUVEL 1883), the New Caledonian specimens were collected in a marshy area near Vata Bay, now part of Nouméa City: “Marais de l’anse Vata près Nouméa”. The marshy area does not exist any more and *Haliplus oberthuri* must be regarded as extinct in New Caledonia.

The specimen collected by the senior author in Queensland was found in a small shaded *Melaleuca* blackwater swamp, rich in submerged and emergent vegetation, most probably acidic and not far away from the sea (“QLD 57”). The single female from New South Wales was collected in partly submerged grass, at the margin of a half-shaded residual pool of a seasonal stream (“NSW 81”).

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Relevant parts of the “Revision of Australian Haliplidae” (VONDEL 1995) are here reproduced with permission of the Council of the Royal Society of South Australia. Oliver Mayo (Adelaide, Australia) is thanked for his help to obtain this permission.



Fig. 13: Geographical distribution of *Haliplus oberthuri* in New Caledonia.

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