

Mitt. Münch. Ent. Ges.	76	67–70	München, 31. 12. 1986	ISSN 0340-4943
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Parophonus australicus sp. n., first record of *Selenophorina* from Australia

(Coleoptera, Carabidae, Harpalinae)*

By Martin BAEHR

Abstract

Parophonus australicus sp. n. is described from northwestern Northern Territory, Australia. This is the first record of the large and widespread Harpaline subtribe *Selenophorina* from Australia. Distribution of the species is perhaps evidence of immigration of this species or of its ancestor directly into Northern Territory rather than via northern Queensland.

Introduction

Harpalinae is one of the largest subfamilies of Ground Beetles. The Australian Harpaline fauna, however, is rather poor and less diverse than the faunas of other large zoogeographical regions. The subtribe *Selenophorina*, widespread in all other continents, was not known from Australia till recently, when BAEHR (1983, 1985) recorded two *Trichotichnus*-species from north Queensland. Very recently, however, NOONAN (1985 a) excluded *Trichotichnus* from the subtribe *Selenophorina* and allocated the genus to an uncertain state. NOONAN also claimed that Australia was never colonized by *Selenophorina* (sensu NOONAN 1985 b) and that the chance for a colonization in future is rather small, because environmental conditions in Australia are generally not suitable for *Selenophorina*.

Recently, however, a small series of a new species of the genus *Parophonus* (sensu NOONAN 1985 a) was discovered in northern Australia which is described below.

Parophonus australicus sp. n.

(Figs 1–2)

Holotype:

♂, Australia, Northern Territory, 17 km NE. of Willeroo, 8. 11. 1984, at light, M. & B. BAEHR (Australian National Insect Collection, Canberra). Paratypes: 1 ♂, 2 ♀♀, same locality, same date (Coll. M. BAEHR, München, and Zoologische Staatssammlung, München).

Type locality: 17 km NE of Willeroo about 110 km ssw of Katherine, Northern Territory, Australia.

Diagnosis: A medium-sized, rather wide, bluish species with wide pronotum and very dense pilosity on elytra, best characterized by structure of aedeagus.

* Supported by a travel grant of the Deutsche Forschungsgemeinschaft (DFG).

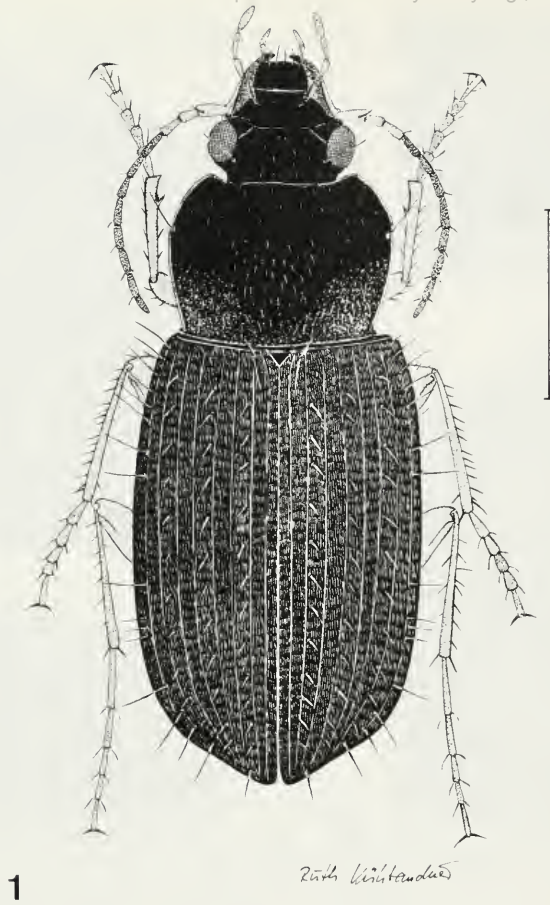


Fig. 1. *Parophonus australicus* sp. n., ♂ holotype. Scale: 2 mm.

Description

Measurements: Length: 7.6–8.6 mm, width: 3.15–3.5 mm. Holotype: Length: 7.6 mm, width: 3.15 mm. Ratio width/length of pronotum: 1.56; ratio width of pronotum/width of head: 1.55; ratio length/width of elytra: 1.59.

Colour: Black, elytra with a faint bluish tinge. Pronotum with narrow reddish border. Lower surface black, tip of last abdominal segment reddish. Mouthparts and legs yellow, antennae with 1st and 2nd segments yellow, then gradually darker. Pilosity of elytra yellow.

Head: Much narrower than pronotum. Eyes large, protruding, temples short, oblique. Labrum with a small triangular tooth. Glossa apically square, with two elongate setae, paraglossae slightly surpassing glossa. Palpi sparsely pilose. Clypeoocular furrow nearly complete. Antennae rather short, last two segments surpassing basal border of pronotum. Surface densely punctate, punctures somewhat confluent.

Pronotum: Much wider than head, about 1.5× as wide as long. Apex considerably excavate, not bordered medially. Lateral borders convex to posterior angles, base almost straight. Anterior angles widely rounded, posterior angles obtuse, with a tiny denticle. Base bordered throughout, lateral channel anteriorly narrow, posteriorly widened, rather deep. Pronotum widest at middle, at some distance

from lateral seta. Median line faint. Basal grooves shallow. Puncturation dense, strong, laterally and near base confluent, less dense medially. Pilosity rather dense, inconspicuous, depressed.

Elytra: Wide and depressed, about $1.5\times$ as long as wide. Sides slightly convex, elytra widest behind middle. Shoulders rounded off, without tooth, apex in both sexes fairly excised. Striae rather deep, smooth, intervals slightly convex, very densely punctate, punctures transversely confluent to some extent. Pilosity regular, depressed, very dense, median intervals with about 10 hairs each, hairs rather elongate. Rows of punctures at 3rd, 5th, and 7th intervals very inconspicuous, erect setae extremely short. Surface of elytra rather iridescent.

Lower surface: Finely pilose, proepisterna smooth. Last sternite of ♂ with one, of ♀ with two setae each side.

Legs: 1st to 4th segments of ♂ protarsus clothed. Basal segment of metatarsus about as long as two following segments.

Aedeagus (Fig. 2): Strongly narrowed to apex, extreme tip slightly bent down. Internal sac with a strongly sclerotized tooth each side. Right paramere small, left paramere large, rather square apically.

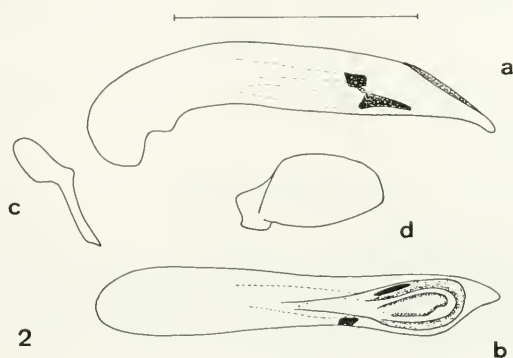


Fig. 2. *Parophonus australicus* sp. n., ♂ aedeagus. a. left side; b. ventral side; c. right paramere; d. left paramere. Scale: 1 mm.

Variation: Not noted, apart from some minor variation of size and of relative width of pronotum.

Distribution: So far only known from type locality in northwestern Northern Territory.

Habits: All specimens flew to light in open Tropical Eucalypt Woodland, comparable to open Savannah of other countries. The species was caught in November, just before onset of wet season.

Discussion

This is the single *Parophonus*-species so far recorded from Australia. Without doubt the species belongs to that genus in the wide sense used by NOONAN (1985 a). This Australian species is geographically rather widely separated from the next *Parophonus*-species, which are *P. javanus* GORY from the Greater Sunda Islands, and *P. cyanellus* BATES and *P. cyanotinctus* BATES, both from southern Asia. *P. australicus* is at once distinguished from *P. cyanotinctus* by its considerably smaller size, from *P. cyanellus* by its bluish rather than greenish lustre and by slightly larger size, and from *P. javanus* by wider and more convex pronotum and by stouter aedeagus with less strongly bent down apex.

NOONAN (1985 b) stresses that *Parophonus*-species typically occur in tropical-subtropical Savannah areas and he thinks that the absence of the genus from Australia (and New Guinea) is due to the small

extent of suitable environments in both countries, which in general is a correct observation. However, in northern Australia a rather narrow fringe of moderately wet open Savannah woodland extends from northern Queensland (Cape York Peninsula) to northern parts of Northern Territory and Western Australia. However, there is a barrier of dry grassland country in northwestern Queensland and adjacent Northern Territory. This zone of open Tropical Woodland is well comparable to the "Wet Savannahs" of other continents. On these grounds it is possible that still more species of *Parophonus* or even other Selenophorine genera will be discovered in future. Species might occur in similar areas of northern Queensland and northern Western Australia.

Nevertheless, the Carabid fauna of north Queensland is much better known than the fauna of northern Northern Territory or Western Australia, therefore it is doubtful, whether northern Queensland has been colonized at all by this genus, as more, as *Parophonus* is not known from New Guinea. Perhaps immigration of *Parophonus australicus* or of its ancestors into Australia took place directly from the Sunda Archipelago to Northern Territory, but not along the regular immigration route for Oriental faunal elements (DARLINGTON 1961, 1971) via New Guinea and Cape York Peninsula in northern Queensland.

Acknowledgements

For loan of specimens for comparison thanks are due to Dr. N. E. STORK (London).

Zusammenfassung

Parophonus australicus sp. n. aus dem nordwestlichen Northern Territory, Australien, wird beschrieben. Die Art bildet den ersten Fund der artenreichen und weit verbreiteten Subtribus *Selenophorina* der Unterfamilie *Harpalinae* in Australien. Die Verbreitung der Art deutet darauf hin, daß sie oder ihre Vorfahren direkt in das Northern Territory eingewandert sind, nicht aber auf dem Wege über Nordostqueensland.

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Jahr/Year: 1986

Band/Volume: [076](#)

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Artikel/Article: [Parophonus australicus sp. n., first record of Selenophorina from Australia \(Col. Carabidae, Harpalinae\). 67-70](#)