

A new species of the genus *Paradolichoctis* Baehr, 2006 from New Ireland (Insecta: Coleoptera: Carabidae: Lebiini)

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Abstract

Paradolichoctis novaeirlandiae spec. nov. is described from New Ireland. It is distinguished from *P. cordicollis* Baehr, 2006 and the subspecies *P. cordicollis vixspinosa* Baehr, 2007 by shorter and wider elytra lacking apical spines or teeth, and by the lateral margin of the prothorax which in middle is distinctly angulate and near base deeply concave. It is the first taxon of this genus from outside of Solomon Islands.

Zusammenfassung

Paradolichoctis novaeirlandiae spec. nov. wird von New Ireland beschrieben. Die Art unterscheidet sich von *P. cordicollis* Baehr, 2006 und ihrer Unterart *P. cordicollis vixspinosa* Baehr, 2007 durch kürzere und breitere Elytren, denen Apikaldorne oder Apikalzähnnchen fehlen, und durch den Seitenrand des Prothorax, der in der Mitte dreieckig, in der Nähe der Basis aber deutlich konkav ist. Es ist das erste Taxon dieser Gattung, das außerhalb der Salomonen gefunden wurde.

Key words: Carabidae, Lebiini, *Paradolichoctis* Baehr, new species, New Ireland

Introduction

By courtesy of A. Weigel (Wernburg) and M. Hartmann (Erfurt) I received a single carabid specimen from New Ireland that clearly belongs to the genus *Paradolichoctis* Baehr, 2006, but is quite different in certain respects of its external morphology from both recorded taxa of this genus. Therefore it is herein described as a new species, even when the holotype is a female.

Taxonomic methods

In the taxonomic survey standard methods are used. Measurements were made under a stereo microscope

using an ocular micrometer. Body length has been measured from the apical margin of the labrum to the apex of the elytra. Length of prothorax has been taken along midline, width of base of prothorax at the position of the posterior marginal seta, width of apex between the most advanced points of the apex. Length of elytra was taken in a straight line from the most produced part of the humerus to the most produced part of the apex. Format and style of the description, as well as measurements and ratios follow those used in BAEHR (2006, 2007).

The habitus photograph was obtained with a digital camera using ProgRes CapturePro 2.6 and AutoMontage and subsequently was worked with Corel Photo Paint 14.

The holotype is stored in the working collection of the author at Zoologische Staatssammlung, München (CBM).

Genus *Paradolichoctis* Baehr, 2006

Paradolichoctis Baehr, 2006: 58 – BAEHR 2007: 84.

Type species: *Paradolichoctis cordicollis* Baehr, 2006: 58.

Diagnosis: Both supraorbital setae present; mentum with triangular tooth; paraglossae shorter than glossa, glossa with several short setae at apex; both palpi narrowed towards apex, apical labial palpomere with a dense tuft of hairs in basal half; pronotum cordiform, both marginal setae present; elytra short and wide, base margined to scutellum; scutellary stria absent; external apical angle rounded or obtuse, apex with or without a short tooth or an elongate spine on either side near suture; third stria bipunctate in apical half, punctures well impressed but commonly lacking setae; lower surface pilose; prosternal process with several erect hairs; legs elongate and delicate; tarsal claws very large, denticulate only in basal third or half; aedeagus (if recorded) straight, elongate, with a sclerotized piece in the dor-

so-apical part of the internal sac that is covered with fairly elongate denticles; female stylomere 1 without apical setae, stylomere 2 with 1 dorso-median ensiform seta and two ventro-lateral ensiform setae, but without any nematiform setae, all setae elongate.

The genus was recorded so far only from from Solomon Islands.

The single recorded species of the genus *Paradolichoctis* Baehr rather resembles spinose species of the genus *Dolichoctis* Schmidt-Goebel, 1846, namely those of the subgenus *Spinidolichoctis* Baehr, 2006. which occur mainly in New Guinea, the Bismarck Archipelago, and northern Australia, though one species is recorded from Solomon Islands. However, the genus *Paradolichoctis* differs in certain important characters from *Dolichoctis* and for that reason this new genus was proposed for the single species *P. cordicollis* Baehr, 2006 that was so far known only from Bougainville Island at the extreme western corner of Solomon Islands. In the meantime an additional subspecies *P. cordicollis vixspinosa* Baehr, 2007 was described, again from Solomon Islands, but from San Cristobal Island.

***Paradolichoctis novaeirlandiae*, spec. nov.**

Fig. 1

Holotype: ♀, PAPUA-NEUGUINEA New Ireland, Hans-Meyer Range, 60km SE Nanatanai, Hirudan River, S04°00'41" E152°05'79" 08.III.2000. leg. A. Weigel (CBM).

Diagnosis: In most respects similar to *P. cordicollis* Baehr from Solomon Islands, but differing by shorter and wider elytra, absence of sutural spines or teeth on the apex of the elytra, and by different shape of the pronotum, i.e. the lateral margin being distinctly angulate in middle and deeply excised near base, and by the angulate basal angle.

Description: Measurements: Length: 7.05 mm; width: 4.2 mm. Ratios. Width/length of prothorax: 1.63; width base/apex of prothorax: 1.08; width prothorax/head: 1.16; length/width of elytra: 1.35; length elytra/prothorax: 3.15.

Colour (Fig. 1): Black, lateral margin of pronotum and elytra inconspicuously paler. Lateral margins of clypeus, labrum, and mandibles pale rufous; palpi, antenna from

2nd antennomere, and tarsi dark yellow; basal antennomere in middle, also femora and protibia brown, meso- and metatibia dark rufous. Lower surface almost black.

Head (Fig. 1): Labrum elongate, anteriorly convex. Mentum at spex with a triangular tooth. Frons in middle behind clypeal suture with a shallow, about horse-shoe shaped, rather triangular impression. Eye large, almost semicircular, laterad markedly projected; orbit c. half as long as eye, oblique, neck rather narrow. Only the posterior supraorbital seta present but very short, anterior seta absent, though the pore present. Antenna moderately elongate, slightly surpassing base of pronotum, densely pilose from apex of 4th antennomere; subapical antennomeres at most 1.5x as long as wide. Frons between eyes with faint and shallow, longitudinal striae which are more distinct immediately near the eyes; whole surface with distinct though superficial, almost isodiametric to transverse microreticulation, with extremely fine and scattered punctation, moderately glossy. **Pronotum (Fig. 1):** Rather wide, disk slightly convex, base wider than apex. Lateral margin in apical third evenly convex, incurved anterad, in front of middle markedly angulate; behind this angle oblique and rather straight for a distance, but in front of the basal angle deeply concave. Apex slightly excised, excision almost transverse but in middle faintly produced, apical angle projected but evenly rounded. Basal angle acute, almost rectangular, but laterad slightly produced. Base in middle slightly concave, laterally obliquely convex. Apex distinctly margined, base only in middle margined. Median line shallow, almost reaching apex and base, basal grooves fairly deep, about linear, obliquely oval-shaped. Lateral channel moderately wide, even widened towards base, lateral margin gently explanate, somewhat upturned. Anterior lateral seta in holotype absent but pore distinct, situated at widest diameter; posterior seta situated at basal angle. Surface with some fine, irregularly transverse wrinkles in middle and rather fine, scattered punctures, with fine and extremely superficial microreticulation composed of transverse, on the lateral parts of the disk oblique, lines; glossy, slightly iridescent.

Elytra (Fig. 1): Comparatively short and wide, gently oval, widest in middle, lateral margin almost evenly convex but near base faintly concave. Dorsal surface rather convex but disk in middle depressed. Humerus rounded. Lateral apical angle barely angulate. Apical



Fig. 1. *Paradolichoctis novaeirlandiae*, spec. nov. Habitus (Length 7.05 mm).

margin on either side faintly concave, but without apical spine or tooth, though at suture slightly incurved. Lateral margin with narrow sulcus. Striation complete, striae well impressed but here and there interrupted, gently punctate or crenulate; intervals, even the lateral ones, gently convex, with fine and scattered punctation. Scutellary stria absent but pore present. Two discal punctures situated behind middle and at apical fifth of the elytra. The anterior, fine puncture located in middle of third interval, the posterior, deeper puncture near second stria. Surface with fine and superficial, irregular microreticulation composed of transverse lines which in the lateral parts are rather oblique; surface very glossy, even slightly iridescent. Metathoracic wings fully developed.

Lower surface: Metepisternum moderately elongate, c 1.6 x as long as wide. Abdomen finely punctate and pilose. Abdominal sternum VII in female quadrisetose. Legs. As in the nominate species, but claws with only three fairly long teeth in the basal third. Squamosity of the male protarsus unknown.

Male genitalia. Unknown.

Female gonocoxites. Unknown, because largely damaged.

Variation. Unknown.

Distribution: New Ireland. Only recorded from the type locality.

Collecting circumstances: Little recorded, except holotype collected at light near river.

Etymology: The name refers to the occurrence of the species in New Ireland.

Tab. 1. Comparison of measurements and ratios of the taxa of *Paradolichoctis* Baehr

N = Number of specimens measured; l = body length in mm; w/l pr = ratio width/length of pronotum; b/a pr = ratio width base /apex of pronotum; w pr/h = ratio width pronotum/head; l/w el = ratio length/width of elytra; l el/pr: ratio length elytra/pronotum.

	N	l	w/l pr	b/a pr	w pr/h	l/w el	l el/pr
<i>c. cordicollis</i>	5	6.7–7.2	1.55–1.64	0.98–1.0	1.14–1.18	1.53–1.54	4.08–4.24
<i>cordicollis vixspinosa</i>	1	6.75	1.67	1.06	1.17	1.45	3.89
<i>novaeirlandiae</i>	1	7.05	1.63	1.08	1.16	1.35	3.15

Recognition

The known taxa of *Paradolichoctis* can be distinguished as follows (references to figures of described taxa refer to the papers of BAEHR 2006 and 2007 = **B06**, **B07** Fig.).

- 1. Elytra rather short and wide, ratio length/width 1.35; without perceptible apical spine or tooth; base of prothorax wider, width ratio base/apex 1.08; lateral margin before middle distinctly angulate, near base deeply excised, basal angle acute (Fig. 1). New Ireland
novaeirlandiae **spec. nov.**
- Elytra slightly longer and narrower, ratio length/width >1.45; with distinct apical spine or tooth (**B06** Fig. 30, **B07** Fig. 11); base of prothorax narrower, width ratio base/apex <1.06. mostly less; lateral margin before middle not angulate, near base less excised, basal angle angulate or obtuse (**B06** Fig. 19, **B07** Fig. 7). Solomon Islands 2.
- 2. Apical spine of elytra remarkably elongate (**B06** Fig. 30); basal angle of pronotum obtuse though perceptibly angulate (**B06** Fig. 19); apical half of antenna not contrastingly pale. Bougainville Is.
cordicollis cordicollis **Baehr, 2006**
- Apical spine of elytra very short, only tooth-shaped (**B07** Fig. 11); basal angle of pronotum almost rounded off (**B07** Fig. 7); apical half of antenna contrastingly pale. San Cristobal Is.
cordicollis vixspinosa **Baehr, 2007**

Remarks

As it was expressed in the previous papers on the genus *Paradolichoctis* (BAEHR 2006, 2007), certainly this genus is closely related to the widespread genus *Doli-*

choctis Schmidt-Goebel, 1846. However, although the new species, at the first glance, looks quite different in its body shape, as compared with both subspecies of *P. cordicollis* Baehr, several character states demonstrate that the three taxa certainly belong to the same genus. Therefore, occurrence and distribution of *Paradolichoctis* once more indicate, that Solomon Islands and the Bismarck Archipelago form a distinct subdivision of the Papuan Subregion, because the genus thus far was not recorded from New Guinea, although this part of the Papuan Subregion has been much more intensively collected.

Acknowledgements

I am indebted to Andreas Weigel (Wernburg) and Matthias Hartmann (Erfurt) for the kind gift of the specimens.

References

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Jahr/Year: 2018

Band/Volume: [37](#)

Autor(en)/Author(s): Baehr Martin

Artikel/Article: [A new species of the genus Paradolichoctis Baehr, 2006 from New Ireland \(Insecta: Coleoptera: Carabidae: Lebiini\) 171-174](#)