

# New taxa of *Dolichoctis* Schmidt-Goebel and *Paradolichoctis* Baehr from the Australian-Papuan Region (Coleoptera: Carabidae: Lebiinae)

Martin Baehr

Three new species of the genus *Dolichoctis* Schmidt-Goebel, subgenus *Spinidolichoctis* Baehr, are described: *D. sinuaticollis* sp. n. and *D. picescens* sp. n. from Cape York Peninsula, northern Queensland, Australia, and *D. nigricauda* sp. n. from western New Guinea. It seems that the previous Australian records of *D. aculeata* Chaudoir and *D. subrotunda* Darlington are erroneous and rather refer to the newly described species. *Paradolichoctis cordicollis vixspinosa* subsp. n. is described from the island of San Cristobal, Solomon Islands. It differs from the nominate subspecies from Bougainville Island mainly in the extremely short sutural spines of the elytra. All species are included in the recent keys, and for the Australian species of *Dolichoctis* a separate key is provided.

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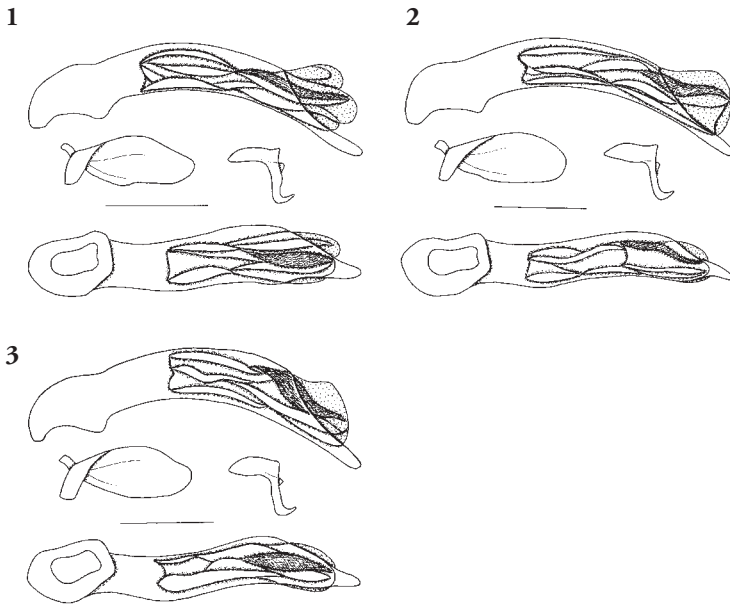
## Introduction

According to the catalogue of Australian Carabid beetles (Moore et al. 1987) three species of the large Indo-Australian genus *Dolichoctis* Schmidt-Goebel, 1846 occur in Australia: the widespread *D. striata* Schmidt-Goebel, 1846 of the nominate subgenus that is mainly characterized by unarmed and usually spotted elytra, and *D. aculeata* Chaudoir, 1869 and *D. subrotunda* Darlington, 1968, subgenus *Spinidolichoctis* Baehr, 1999 which occurs only in the Papuan Subregion and is characterized by the dentate or spinose apex of the elytra and usually uniformly black colour. Whereas the first two species were recorded from Iron Range in mid Cape York Peninsula, northern Queensland, Moore did not give any Australian locality record for *D. subrotunda*. Both, *D. aculeata* and *D. subrotunda* are common in New Guinea, and *D. aculeata* occurs also on Sulawesi, the Moluccas, New Britain, and New Ireland (Baehr 1999). *D. striata* certainly is the most widespread species of the genus and is said to occur throughout the whole range of the genus, which extends from India and

Nepal in the northwest, through the whole of tropical Asia to Japan in the east, and in the south through the Indonesian and Philippine insular belts to New Guinea, the Bismarck Archipelago, Solomon Islands, and northeastern Australia. However, the taxonomic status of many populations of *D. striata* is not yet settled and so a comparative examination of the whole complex is currently carried out. It seems that the Australian "*D. striata*" are different from those from mainland Asia, and that the whole complex consists of several different taxa. Moreover, most populations which usually are referred as "*D. striata*" probably do not belong to this species, because in most previous comprehensive papers the real *D. striata* seems to have been confounded with other species.

The species of the genus *Dolichoctis* occurring in the Papuan Subregion have been revised first by Darlington (1968) in his monumental treatment of the Carabidae of New Guinea, then by the author (Baehr 1999, 2003a, b, 2006). At present 44 taxa are recorded from this area, most of these occurring in New Guinea (see checklist in Baehr 2006).

In the course of my work on the Papuan species of



**Figs 1–3.** Aedeagus, left side, lower surface; parameres. – 1. *Dolichoctis sinuaticollis* sp. n. 2. *D. picescens* sp. n. 3. *D. nigricauda* sp. n. Scales: 0.25 mm.

*Dolichoctis*, which revealed a very high species diversity of the genus in this area, I was curious to see whether the few specimens recorded from Australia actually represent the species to which they were attributed. During a recent visit to Queensland Museum, Brisbane, I was able to re-examine a series of specimens from Iron Range that partly were unidentified, but partly had been determined by me some years ago. In the light of new evidence and through ample comparisons with all known species of *Spinidolichoctis*, they now prove to belong to two undescribed species rather than to *D. aculeata* Chaudoir or *D. subrotunda* Darlington, species to which they were previously ascribed.

Material recently received from New Guinea, collected by A. Riedel, Karlsruhe, revealed one additional undescribed New Guinean species.

In a recent identification shipment from The Natural History Museum, London, I detected a single specimen that belongs to the recently described taxon *Paradolichoctis cordicollis* Baehr, 2006 (recorded from the Island of Bougainville of Solomon Islands), though it differs from the Bougainville specimens *inter alia* in its extremely short sutural spines. Since size and shape of sutural spines in the related genus *Dolichoctis* Schmidt-Goebel are characters that do not much vary within species, this striking difference between specimens sampled on different islands is of major importance and seems to corroborate a different taxonomic status. In view of the many characters

that are similar in the new taxon, this is described rather as subspecies than as species. This procedure was chosen in particular, because the single known specimen of the new taxon is a female.

## Methods

Format and style of the descriptions, as well as measurements and ratios follow those used in Baehr (1999). Measurements were made under a stereomicroscope using an ocular micrometer. Length has been measured from apical margin of labrum to apex of elytra including the apical spines, hence, length measurements may slightly differ from those of Darlington (1968). Length of prothorax has been taken along midline; width of base of prothorax at position of the posterior marginal setae; width of apex between the most advanced points of apex.

For dissection of the male genitalia the specimens were soaked in a wet jar for a night, then the genitalia were cleaned for a short while in hot 4% KOH. The habitus photograph was obtained with a digital camera using ProgRes Capture Basic and AutoMontage and subsequently worked with Corel Photo Paint 11.

## Abbreviations

BMNH The Natural History Museum, London

CBM Working Collection M. Baehr at Zoologische Staatssammlung, München

QMB Queensland Museum, Brisbane  
 SAMA South Australian Museum, Adelaide  
 SMNS Staatliches Museum für Naturkunde,  
 Stuttgart

## Systematics

### Genus *Dolichoctis* Schmidt-Goebel

For literature and extensive diagnosis see the revision by Baehr (1999). This genus is very polymorphic that includes vividly coloured as well as uniformly black species, those with unarmed elytra and species that bear elongate apical spines, and even the chaetotaxy of head and pronotum is variable. All species, however, are characterized by their minute setiferous punctures of the elytral disc that invariably number only two.

### Subgenus *Spinidolichoctis* Baehr

*Spinidolichoctis* Baehr, 1999: 129. – Subsequent citations:  
 Baehr 2003a: 4; 2003b: 16; 2006: 39.

This subgenus is characterized by the dentate or aculeate sutural apex of the elytra in combination with absence of the anterior marginal pronotal seta, common lack of the anterior supraorbital seta, either unicolourous black colour or, quite rarely, indistinctly maculate elytra, and rather wide and depressed body. The subgenus is quite homogenous in external as well as in genitalic characters.

*Dolichoctis (Spinidolichoctis) sinuaticollis* sp. n.  
 Figs 1, 4, 8

**Type material.** Holotype: ♂ Australia, Queensland: West Claudie R., Iron Range, N. Qld. 3–10 Dec 1985 G. Monteith & D. Cook Rainforest, 50 m (QMT123620). **Paratypes:** Australia, Queensland: 3 ♀ same data (CBM, QMB); 1 ♂, same date and locality, but Pyrethrum knockdown/RF (CBM); 1 ♂, East Claudie R., Iron Range, N. Qld. 6 Dec 1985 G. Monteith & D. Cook Pyrethrum knockdown/RF (QMB).

### Diagnosis

Medium-sized species, characterized by the markedly cordiform pronotum bearing a distinct prebasal sinuosity, in combination with well-impressed striae, and medium-sized, reddish sutural spines.

### Description

**Measurements.** Length: 5.9–6.3 mm; width: 2.65–2.75 mm. Ratios. Width/length of prothorax:

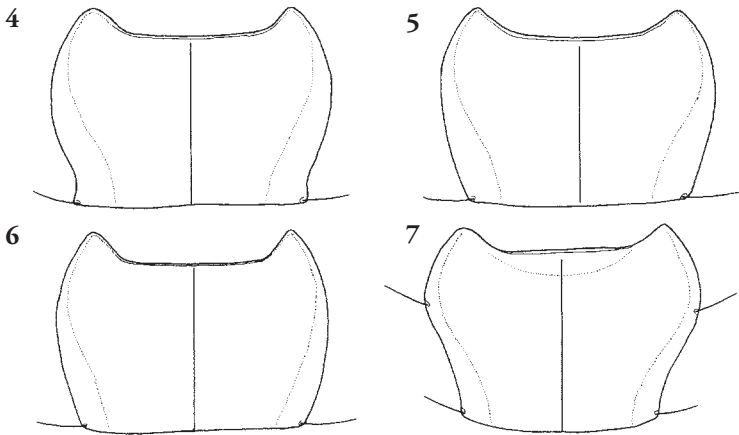
1.63–1.75; width base/apex of prothorax: 1.30–1.37; width prothorax/head: 1.32–1.37; length/width of elytra: 1.51–1.54; length elytra/prothorax: 4.05–4.35.

**Colour.** Dark piceous to black, but pronotum usually slightly paler. Lateral margin of pronotum rather widely reddish-piceous. Clypeus in part, labrum, mandibles, palpi, antennae, tarsi and apex of tibiae lightly reddish, femora and tibiae piceous. Apical spines of elytra reddish. Abdomen reddish-piceous, but lateral margin conspicuously darker.

**Head.** Labrum elongate, anteriorly slightly convex. Frons in middle behind clypeal suture with an extremely shallow, more or less distinct, nearly circular impression. Eyes of average size, almost semicircular, laterally markedly projected, orbits short, rather oblique, neck rather narrow. Only the posterior supraorbital seta present, anterior seta absent, though the pore present. Antenna rather short, slightly surpassing base of pronotum, subapical antennomeres circa 1.5 × as long as wide. Surface with distinct though slightly superficial isodiametric microreticulation, with fine and scattered punctation, moderately glossy.

**Pronotum** (Fig. 4). Rather wide, depressed, base considerably wider than apex. Lateral margin evenly convex, markedly incurved anteriorly, with short but very distinct sinuation just in front of basal angle. Apex deeply excised, excision almost transverse, apical angles produced but evenly rounded. Basal angles distinct, laterally slightly produced, but rather obtuse. Base in middle straight, laterally obliquely convex. Apex very indistinctly margined, base not margined. Median line shallow, almost reaching apex and base, basal grooves fairly deep, about linear, obliquely oval-shaped. Lateral explanation wide throughout, even widened towards base, lateral margins widely explanate and somewhat upturned. Anterior lateral seta absent, posterior seta situated at basal angle. Surface with some fine, irregular wrinkles and extremely fine, scattered punctures, with fine and very superficial microreticulation that is composed of transverse lines; rather glossy, slightly iridescent.

**Elytra** (Fig. 8). Comparatively elongate, rather depressed, gently oval, widest in middle, lateral margins almost evenly convex. Lateral apical angles obtusely angulate, sutural angles slightly dehiscent, with moderately elongate apical spines. Striation complete, striae rather lightly impressed, very gently crenulate, intervals gently convex, with very fine and scattered punctation. Two very small discal punctures situated behind middle and at apical fifth of elytra. The anterior puncture located in middle of third interval, the posterior one near second stria. Surface with very fine and highly superficial, though remarkably



**Figs 4–7.** Pronotum.

– 4. *Dolichoctis sinuaticollis* sp. n. 5. *D. picescens* sp. n. 6. *D. nigricauda* sp. n. 7. *Paradolichoctis cordicollis vixspinosa* subsp. n.

regular, microreticulation composed of transverse lines; surface glossy, even slightly iridescent. Flight wings fully developed.

**Lower surface.** Metepisternum moderately elongate, c 1.6× as long as wide. Abdomen impunctate. Abdominal sternum VII bisetose in both sexes.

**Male genitalia** (Fig. 1). Genital ring wide, moderately asymmetrical, with wide, short basal part and rather narrow apex; aedeagus rather small though fairly stout, laterally indistinctly sinuate, with evenly concave lower surface lacking convexity near apex; apex fairly elongate, straight, not knobbed, directed slightly to right side, with inconspicuous preapical excision; ostium short, quite symmetric on upper surface; internal sac complexly folded, with a narrow, sinuate, denticulate plate in upper apical part; both parameres elongate, left paramere with obliquely rounded apex.

**Female stylomeres.** Stylomere 1 asetose at apical rim, stylomere 2 with one elongate dorso-median and two elongate ventro-lateral ensiform setae, but without any nematiform setae.

**Variation.** Little variation noted, except for relative width of pronotum.

#### Distribution

Iron Range, central eastern Cape York Peninsula, northern Queensland, Australia.

#### Collecting circumstances

All specimens were sampled in lowland rain forest, most by pyrethrum fogging, either from fallen logs or from trunks of standing trees.

#### Etymology

The name is a feminine adjective and refers to the remarkably distinct prebasal sinuosity of the pronotum.

#### Relationships

In view of the markedly sinuate pronotum rather similar to *D. aculeata* Chaudoir, 1869, but the latter species is much more convex and has even less impressed striae.

#### *Dolichoctis (Spinidolichoctis) picescens* sp. n.

Figs 2, 5, 9

**Type material.** Holotype: ♂ **Australia, Queensland:** West Claudie R., Iron Range, N. Qld. 3–10 Dec 1985 G. Monteith & D. Cook Pyrethrum knockdown/RF (QMT123620). **Paratypes: Australia, Queensland:** 2♀ same data (CBM, QMB); 1♀, East Claudie R., Iron Range, N. Qld. 6 Dec 1985 G. Monteith & D. Cook Pyrethrum knockdown/RF (QMB); 1♀ 3 km E. Lockerbie, Cape York N. Qld. 19–23 Mar 1987 G. B. Monteith Rainforest pitfall traps (QMB); 1♂ Coen R. Q. W. D. Dodd (SAMA).

#### Diagnosis

Medium-sized species, characterized by the laterally convex pronotum bearing an anteriorly narrow, but posteriad markedly widened lateral channel, in combination with reddish-piceous colour of pronotum and elytra, well-impressed striae, and rather short, reddish sutural spines.

#### Description

**Measurements.** Length: 6.0–6.7 mm; width: 2.6–2.8 mm. Ratios. Width/length of prothorax: 1.68–1.71; width base/apex of prothorax: 1.32–1.40; width prothorax/head: 1.39–1.42; length/width of elytra: 1.50–1.57; length elytra/prothorax: 4.05–4.23.

**Colour.** Pronotum and elytra reddish-piceous, head slightly darker. Lateral margin of pronotum slightly

paler than disk. Clypeus in part, labrum, mandibles, palpi, antennae, femora, and apex of tibiae pale reddish, tibiae and tarsi slightly darker. Apical spines of elytra reddish. Abdomen more or less pale reddish, lateral margin inconspicuously darker.

**Head.** Labrum elongate, anteriorly slightly convex. Frons in middle behind clypeal suture with an extremely shallow, more or less distinct, about horse-shoe-shaped impression. Eyes of average size, almost semicircular, laterally markedly projecting, orbits short, rather oblique, neck rather narrow. Only the posterior supraorbital seta present, anterior seta absent, though the pore present. Antenna rather short, slightly surpassing base of pronotum, subapical antennomeres at most  $1.5\times$  as long as wide. Surface with distinct though slightly superficial isodiametric microreticulation, with fine and scattered punctation, moderately glossy.

**Pronotum** (Fig. 5). Rather wide, moderately depressed, base considerably wider than apex. Lateral margin in apical half evenly convex, markedly incurved anterad, in posterior half gently convex to almost straight, without any sinuation in front of base. Apex deeply excised, excision almost transverse, apical angles produced but evenly rounded. Basal angles obtuse, not produced. Base in middle straight, laterally obliquely convex. Apex very indistinctly margined, base not margined. Median line shallow, almost reaching apex and base, basal grooves fairly deep, about linear, obliquely oval-shaped. Lateral channel narrow in anterior half, markedly widened towards base, lateral margins only posteriorly explanate, somewhat curved upwards. Anterior lateral seta absent, posterior seta situated at basal angle. Surface with some fine, irregular wrinkles and extremely fine, scattered punctures, with fine and very superficial microreticulation that is composed of transverse meshes and lines; rather glossy, slightly iridescent.

**Elytra** (Fig. 9). Comparatively elongate, rather depressed, gently ovoid, widest in middle, lateral margins almost evenly convex. Lateral apical angles obtusely angulate, sutural angles slightly dehiscent, with comparatively short apical spines. Striation complete, striae well impressed, very gently crenulate, intervals, even the lateral ones, gently convex, with very fine and scattered punctation. Two very fine discal punctures situated behind middle and at apical fifth of elytra. The anterior puncture situated in middle of third interval, the posterior one near second stria. Surface with very fine and superficial though remarkably regular microreticulation composed of transverse lines; surface glossy, even slightly iridescent. Flight wings fully developed.

**Lower surface.** Metepisternum moderately elongate,

c  $1.6\times$  as long as wide. Abdomen impunctate. Abdominal sternum VII bisetose in both sexes.

**Male genitalia** (Fig. 2). Genital ring wide, moderately asymmetrical, with wide, short basal part and rather narrow apex; aedeagus rather small, laterally markedly sinuate, with evenly concave lower surface lacking convexity near apex; apex moderately elongate, straight, not knobbed, directed slightly to right side, with distinct preapical excision; ostium short, quite symmetric on upper surface; internal sac complexly folded, with a narrow, sinuate, denticulate plate in upper apical part; both parameres elongate, left paramere with obliquely rounded apex.

**Female stylomeres.** Stylomere 1 asetose at apical rim, stylomere 2 with one elongate dorso-median and two elongate ventro-lateral ensiform setae, but without any nematiform setae.

**Variation.** Except for the single specimen from the tip of Cape York Peninsula that has slightly longer and narrower elytra, very little variation noted.

### Distribution

Central eastern and northern Cape York Peninsula, northern Queensland, Australia.

### Collecting circumstances

Most specimens were sampled by pyrethrum fogging in lowland rainforest, either from fallen logs or from trunks of standing trees. The single specimen from tip of Cape York Peninsula was sampled in pitfall trap.

### Etymology

The name is a feminine adjective and refers to the piceous colour of the dorsal surface.

### Relationships

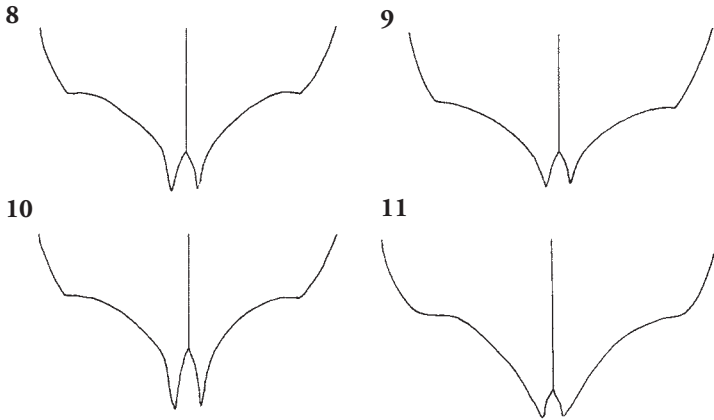
This species belongs to the core of the subgenus and is close in shape and surface structure to *D. subrotunda* Darlington, 1968, but larger, differently coloured, and has slightly shorter sutural spines.

*Dolichoctis (Spinidolichoctis) nigricauda* sp. n.  
Figs 3, 6, 10, 12

**Type material.** Holotype: ♂, Indonesia: Irian Jaya, Sorong, dusun Meibo, 100–150m, 19.I.2001, leg. A. Riedel (SMNS). Paratype: 1♀, same data (CBM).

### Diagnosis

Medium-sized species, characterized by the dark sutural spines in combination with laterally convex pronotum, and well-impressed striae with gently convex intervals.



**Figs 8–11.** Apex of elytra. – 8. *Dolichoctis sinuaticollis* sp. n. 9. *D. picescens* sp. n. 10. *D. nigricauda* sp. n. 11. *Paradolichoctis cordicollis vixspinosa* subsp. n.

### Description

**Measurements.** Length: 6.1 mm; width: 2.65–2.7 mm. Ratios. Width/length of prothorax: 1.68–1.72; width base/apex of prothorax: 1.35–1.40; width prothorax/head: 1.37–1.39; length/width of elytra: 1.51–1.52; length elytra/prothorax: 3.94–4.02

**Colour.** Black, lateral margin of pronotum very inconspicuously paler. Clypeus in part, labrum, mandibles, palpi, antennae, apex of tibiae, and tarsi reddish, femora and tibiae dark. Apical spines of elytra dark. Lower surface almost black.

**Head.** Labrum elongate, anteriorly slightly convex. Frons in middle behind clypeal suture with an extremely shallow, indistinct, more or less triangular impression. Eyes of average size, almost semicircular, laterally markedly projecting, orbits short, oblique, neck rather narrow. Only the posterior supraorbital seta present, anterior seta absent, though the pore present. Antenna rather short, slightly surpassing base of pronotum, subapical antennomeres at most  $1.5\times$  as long as wide. Surface with distinct though slightly superficial isodiametric microreticulation, with extremely fine and scattered punctation, moderately glossy.

**Pronotum** (Fig. 6). Moderately wide, rather depressed, base considerably wider than apex. Lateral margin in apical half evenly convex, markedly incurved anterad, in posterior half gently convex to almost straight, without any sinuation in front of base. Apex deeply excised, excision almost transverse, apical angles produced but evenly rounded. Basal angles obtuse, not produced. Base in middle straight, laterally obliquely convex. Apex distinctly margined, base not 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 margins

gently explanate, somewhat upturned. Anterior lateral seta absent, posterior seta situated at basal angle. Surface with some fine, irregular wrinkles and extremely fine, scattered punctures, with fine and extremely superficial microreticulation composed of transverse lines; glossy, slightly iridescent.

**Elytra** (Fig. 10). Comparatively elongate, dorsally rather convex, gently oval, widest in middle, lateral margins almost evenly convex. Lateral apical angles barely angulate, sutural angles slightly dehiscent, with moderately elongate apical spines. Striation complete, striae well impressed, very gently crenulate, intervals, even the lateral ones, convex, with very fine and scattered punctation. Two very fine discal punctures situated behind middle and at apical fifth of elytra. The anterior puncture located in middle of third interval, the posterior one near second stria. Surface with very fine and extremely superficial, irregular microreticulation composed of transverse lines; surface very glossy, even slightly iridescent. Flight wings fully developed.

**Lower surface.** Metepisternum moderately elongate,  $c 1.6\times$  as long as wide. Abdomen impunctate. Abdominal sternum VII bisetose in both sexes.

**Male genitalia** (Fig. 3). Genital ring wide, moderately asymmetrical, with wide, short basal part and rather narrow apex; aedeagus rather small, laterally markedly sinuate, with evenly concave lower surface lacking any convexity near apex; apex moderately elongate, straight, not knobbed, directed slightly to right side, with shallow preapical excision; ostium short, quite symmetric on upper surface; internal sac complexly folded, with a moderately narrow, sinuate, denticulate plate in upper apical part; both parameres elongate, left paramere with obliquely rounded apex.

**Female stylomeres.** Stylomere 1 asetose at apical rim, stylomere 2 with one elongate dorso-median and



**Fig. 12.** *Dolichoctis nigricauda* sp. n. – Habitus. Length: 6.1 mm.

two elongate ventro-lateral ensiform setae, but without any nematiform setae.

**Variation.** Very little variation noted.

#### **Distribution**

West Papua (formerly Irian Jaya). Known only from type locality.

#### **Collecting circumstances**

Probably sampled by sieving litter on or below logs in tropical rain forest.

#### **Etymology**

The name is a female adjective and refers to the black colour of the sutural spines.

#### **Relationships**

In shape and structure this species apparently is most similar to *D. weigeli* Baehr, 2006 from New Britain, but, according to the general similarity of the Papuan species of the subgenus *Spinidolichoctis* as well in external as in genitalic characters, the actual relationships are difficult to track.

#### **Recognition**

A key is presented for the Australian species which includes also the doubtfully recorded species *D. aculeata* Chaudoir and *D. subrotunda* Darlington. In addition all new species are inserted in the most recent key to the Papuan species of the genus (Baehr 2006). For better identification figure numbers from the former papers are included in the key under the codens B99 Fig. and B06 Fig.

#### **Key to Australian *Dolichoctis***

1. Apex of elytra rounded, not dentate or aculeate at sutural angle (*Dolichoctis* s. str.) .....  
..... "*striata*" Schmidt-Goebel
- Apex of elytra dentate or aculeate at sutural angle (*Spinidolichoctis* Baehr) ..... 2
2. Pronotum perceptibly cordiform, with distinct prebasal situation (Fig. 4) ..... 3
- Pronotum not perceptibly cordiform, without distinct prebasal situation (Fig. 5) ..... 4
3. Elytra dorsally markedly convex and striae feebly impressed, intervals depressed; prebasal situation of pronotum less deep (B99 Fig. 30) ..... *aculeata* Chaudoir
- Elytra dorsally rather depressed and striae well impressed, intervals slightly convex; prebasal situation of pronotum deep (Fig. 4) ..... *sinuaticollis* sp. n.
4. Colour of head and elytra black; elongate species; apical spines elongate (B99 Fig. 75) ...  
..... *subrotunda* Darlington
- Colour of head and elytra piceous; shorter and wider species; apical spines short (Fig. 9) ..... *picescens* sp.n.

#### **Key to *Dolichoctis* in the Papuan Subregion**

*D. sinuaticollis* can be inserted in the most recent key (Baehr 2006) under couplet 23, which should read:

23. Prebasal sinuosity of pronotum deep (Fig. 4) ..... *sinuaticollis* sp. n.  
 – Prebasal sinuosity of pronotum less deep (B99 Figs 31, 36–41, 43, 44; B06 Figs 26, 27) ..... 23a  
 23a. Sutural spines markedly elongate (B99 Figs 60, 65; B06 Fig. 27) ..... 24  
 – Sutural spines shorter (B99 Figs 66, 67, 70, 72, 73; B06 Fig. 26) ..... 26

*D. picescens* can be inserted in the most recent key (Baehr 2006) under couplet 34, which should read:

34. Piceous species and body length > 6 mm and sutural spines short (Fig. 9) *picescens* sp. n.  
 – Either black species or body length < 6 mm or sutural spines longer ..... 34a  
 34a. Smaller species, body length usually < 5.5 mm, rarely up to 6 mm; elytra elongate and sutural spines rather elongate, reddish at tip (B99 Fig. 75) ..... *subrotunda* Darlington  
 – Larger species, body length usually > 6 mm, rarely smaller; sutural spines usually short (B99 Figs 68, 69), when elongate, then elytra shorter and wider and sutural spines black ..... 35

*D. nigricauda* can be inserted in the most recent key (Baehr 2006) under couplet 35, which should read:

35. Elytra dorsally rather convex, striae deeply impressed, intervals convex, sutural spines elongate (Fig. 10; B06 Fig. 28) ..... 35a  
 – Elytra dorsally rather depressed, striae superficially impressed, intervals barely convex, sutural spines short (B99 Figs 68, 69) ..... 36  
 35a Pronotum wide, ratio width/length >1.78, width pronotum/width head >1.5 *weigeli* Baehr  
 – Pronotum narrower, ratio width/length <1.72, width pronotum/width head <1.4 ..... *nigricauda* sp. n.  
 36. Pronotum narrower, lateral margin distinctly upturned (B99 Fig. 39); striae of elytra slightly more impressed, intervals perceptibly convex (B99 Fig. 94) ..... *major* Baehr  
 – Pronotum wider, lateral margin less upturned (B99 Fig. 40); striae of elytra feebly impressed, intervals almost completely depressed (B99 Fig. 95) ..... *laticollis* Baehr

### Genus *Paradolichoctis* Baehr

The single recorded species of the genus *Paradolichoctis* Baehr rather resembles spinose species of the

genus *Dolichoctis*, namely those of the subgenus *Spinidolichoctis* that occur principally in New Guinea, the Bismarck Archipelago, and 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 that was so far known only from Bougainville Island at the extreme western corner of Solomon Islands.

### *Paradolichoctis cordicollis* Baehr

*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; external apical angles completely rounded, apex with an elongate spine on either side near suture; third stria bipunctate in apical half, punctures well impressed but commonly lacking setae; lower surface densely pilose; prosternal process with several erect hairs; legs elongate and delicate; tarsal claws very large, denticulate only in basal half; aedeagus straight, elongate, with a sclerotized piece in dorsoapical part of 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 very elongate.

This species was recorded so far from Bougainville Island.

### *Paradolichoctis cordicollis vixspinosa* subsp. n.

Figs 7, 11

**Type material.** Holotype: ♀, Solomon Islands San Cristoval 21:VII:65 Warahito R. f 75' P. J. M. Greenslade. Roy. Soc. Exped. B. M. 1966–1 / at light (BMNH).

#### Diagnosis

Similar to the nominate subspecies from Bougainville Island, but differing in the extremely short sutural spines that are little more than dentate, the wider apex of the pronotum that bears much more obtuse basal angles, and the markedly contrasting, light apical half of the antennae.



## Description

**Measurements.** Length: 6.75 mm; width: 2.9 mm. Ratios. Width/length of prothorax: 1.67; width base/apex of prothorax: 1.06; width prothorax/head: 1.17; length/width of elytra: 1.45; length elytra/prothorax: 3.89.

**Colour.** Black, only lateral margins of labrum and apical half of palpi reddish. Mandibles dark, four basal antennomeres dark, apical antennomeres pale reddish, fairly contrasting; legs dark, but tarsi distinctly lighter. Apical sutural spines black. Abdomen dark piceous to black.

**Pronotum** (Fig. 7). Rather similar to nominate subspecies, but base slightly wider than apex, lateral channel slightly wider, and basal angles much more obtuse, almost rounded off.

**Elytra** (Fig. 11). Much as in nominate subspecies, but apical spines very short, little more than acute denticles.

**Male genitalia.** Unknown.

## Distribution

San Cristobal Is., Solomon Islands. Known from type locality only.

## Collecting circumstances

Collected at light near river.

## Etymology

The subspecies name is a female adjective and refers to the barely developed sutural spines.

## Recognition

The known subspecies of *Paradolichoctis cordicollis* can be distinguished as follows:

1. Apical spines of elytra remarkably elongate (B06 Fig. 30); basal angles of pronotum obtuse though distinctly angulate (B06 Fig. 19); apical half of antenna not contrastingly light. Bougainville Is. .... *cordicollis cordicollis* Baehr
- Apical spines of elytra very short (Fig. 11); basal angles of pronotum almost rounded off (Fig. 7); apical half of antenna contrastingly light. San Cristobal Is. .... *cordicollis vixspinosa* subsp. n.

## Remarks

Although *D. aculeata* Chaudoir, 1869 and *D. subrotunda* Darlington, 1968 are included in the key to the Australian species, I doubt that both species actually occur in Australia. Earlier records and those

in the catalogue of the Australian carabids (Moore et al. 1987) most probably refer to the new species described herein. But even with the new species, northern Australia is surprisingly poor in species of the genus *Dolichoctis* as compared with neighbouring New Guinea. Because almost all Australian *Dolichoctis* are only known from the Iron Range area in mid Cape York Peninsula which is renowned for the occurrence of – probably rather recently immigrated – species that are closely related to Oriental or New Guinean species (Darlington 1971, Baehr 2000), they likewise seem to represent quite recent immigrants, even when at least two of the three definitely recorded species apparently are endemic to Australia. Certainly the genus *Dolichoctis* is of Oriental origin and in Australia it is a young faunal element. This is corroborated by the still very restricted ranges of most species which were not yet able to proceed further south than mid-Cape York Peninsula, although the extended rainforests of Mossman and Atherton Tablelands further south at the base of Cape York Peninsula should present ideal habitats for *Dolichoctis* species. Only “*D. striata*” seems to have been able to proceed further south to the rainforests at the base of Cape York Peninsula, according to Moore et al. (1987) and to available material, but apparently not yet to the Windsor and Atherton Tablelands rainforest areas.

The new subspecies of *Paradolichoctis cordicollis* reveals a wider distribution of this species on Solomon Islands, but exhibiting a certain amount of evolution and taxonomic diversification. More systematic collecting work in future may reveal additional local subspecies on the other large islands of this archipelago. For biogeographical reasons it would be interesting to examine whether each of the larger islands has its own form, or whether “subspecies” are distributed over more than a single island.

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