

# **New records of the genus *Dolichoctis* Schmidt–Göbel from New Guinea and surrounding islands (Insecta, Coleoptera, Carabidae, Lebiinae)**

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## **Abstract**

*New records of the genus Dolichoctis Schmidt–Göbel from New Guinea and surrounding islands (Insecta, Coleoptera, Carabidae, Lebiinae).*— New records of species of the carabid genus *Dolichoctis* Schmidt–Göbel from New Guinea and several surrounding islands are dealt with. Apart from two new species that were described in another recent paper (Baehr, 2003), records of the following species from New Guinea are annotated: *D. aculeata* Chaudoir, *D. biak* Baehr, *D. dentata* Darlington, *D. laticollis* Baehr, *D. striata* Schmidt–Göbel, *D. subquadrata* Darlington, *D. subrotunda* Darlington, and *D. suturalis* Darlington. *D. aculeata* Chaudoir is also recorded for the first time from the island of New Britain. Additional material of *D. spinipennis* Chaudoir corroborates its status as a separate species, being particular for the Moluccas.

Key words: *Dolichoctis*, New records, New Guinea, New Britain, Moluccas

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## **Resumen**

*Nuevas citas del género Dolichoctis Schmidt–Göbel de Nueva Guinea e islas próximas (Insecta, Coleoptera, Carabidae, Lebiinae).*— Se describen nuevas citas de especies del género *Dolichoctis* Schmidt–Göbel (Carabidae) para Nueva Guinea y diversas islas próximas. Aparte de dos nuevas especies descritas en otro artículo reciente (Baehr, 2003), se señalan citas procedentes de Nueva Guinea para las siguientes especies: *D. aculeata* Chaudoir, *D. biak* Baehr, *D. dentata* Darlington, *D. laticollis* Baehr, *D. striata* Schmidt–Göbel, *D. subquadrata* Darlington, *D. subrotunda* Darlington y *D. suturalis* Darlington. *D. aculeata* Chaudoir se cita por primera vez en la isla de Nueva Bretaña. Recolecciones adicionales de *D. spinipennis* Chaudoir corroboran su estatus como especie separada, presente en las islas Molucas.

Palabras clave: *Dolichoctis*, Nuevas citas, Nueva Guinea, Nueva Bretaña, Molucas

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## Introduction

Since the author's revision of the New Guinean species of the lebiine genus *Dolichoctis* (Baehr, 1999), additional material from New Guinea and several neighbouring islands has accumulated that includes two new species described in another paper (Baehr, 2003) and several new records, including material that corroborates the specific status of a doubtful species from the Moluccas that was previously known only from the two type specimens.

The new species and records are the result of sampling efforts by several collectors, namely M. Balke (Berlin, now London), A. Riedel (München, now Karlsruhe) and A. Weigel (Pößneck). Additional material came from the canopy fogging and light sampling activities of O. Missa (Brussels).

The full synonymies of previously described species can be gathered from Baehr (1999).

### Abbreviations of collections

CBM	Working collection M. Baehr, München
CWP	Collection A. Weigel, Pößneck
IRSNB	Institut Royal des Sciences Naturelles, Bruxelles
SMNS	Staatliches Museum für Naturkunde, Stuttgart

## Studied material

See table 1.

### *Dolichoctis aculeata* Chaudoir

Chaudoir, 1869: 251; Baehr 1999: 129

New records. Several specimens: Canopy Mission P. N. G., Madang province, Baiteta, at light, 05–06/1996 (several data), leg. Olivier Missa (IRSNB); 1♂, P. N. G.: E New Britain, 30 km SW Kokopo, 5 km SW Arabam, 04° 35' 75" S, 152° 06' 84" E, 200 m, 25/02/2000, leg. A. Weigel KL (CBM).

### Note

This species is quite common in New Guinea as is demonstrated by the numerous material collected by O. Missa during his sampling activities of canopy fogging and lighting.

The first record from New Britain of *D. aculeata* corroborates the rather wide range of this species that is now known from the whole area between Sulawesi and some Molucan Islands and New Guinea, New Britain and North–eastern Australia. The New Guinean specimens were all collected in light traps exposed in lowland rain forest.

### *Dolichoctis biak* Baehr

Baehr, 1999: 145

New record. 2♂ 1♀, Irian Jaya, Biak, 30 km NE, Saba E, 01° 07' S, 136° 18' E, 30/12/1998, leg. A. Weigel (CBM, CWP).

### Note

An uncommon species closely related to *D. aculeata* Chaudoir, apparently endemic to Biak Island off the North–west coast of New Guinea. The newly recorded specimens were probably sifted from the bark of logs in lowland rain forest.

Table 1. Recollection data of genus *Dolichoctis* in New Guinea and surrounding islands.  
 Tabla 1. Datos de recolección del género *Dolichoctis* en Nueva Guinea e islas próximas.

Species	Location	Specimens	Latitude	Longitude	Date
<i>D. aculeata</i>	Baiteta	several	-5,0167	145,7500	05/06/1996
<i>D. aculeata</i>	New Britain	1♂	-4,5833	152,1084	25/02/2000
<i>D. biak</i>	Biak	2♂ 1♀	-1,1167	136,3000	30/12/1998
<i>D. dentata</i>	Baiteta	1♀	-5,0167	145,7500	12/06/1996
<i>D. laticollis</i>	Wondiwoi Mts.	1♀	-2,7500	134,5833	08/1998
<i>D. spinipennis</i>	Daruba, Morotai Is.	3♂	2,0833	128,2333	18,19/11/1999
<i>D. striata</i>	Baiteta	several	-5,0167	145,7500	05–06/1996
<i>D. striata</i>	New Britain	1♂ 1♀	-4,5833	152,1084	25/02/2000
<i>D. subquadrata</i>	Baiteta	1♂ 2♀	-5,0167	145,7500	04/05/1996
					10,12/06/1996
<i>D. subrotunda</i>	Baiteta	3♂ 1♀	-5,0167	145,7500	22/04/1996
					17, 20/05/1996
<i>D. suturalis</i>	Baiteta	2♀	-5,0167	145,7500	18/03/1996
					23/05/1996

#### ***Dolichoctis dentata* Darlington**

Darlington, 1968: 128; Baehr 1999: 132

New record. 1♀, Canopy Mission P. N. G., Madang province, Baiteta, at light, 12/06/1996 (several data), leg. Olivier Missa (IRSNB).

#### Note

An easily identified species that extends over the whole of New Guinea, though it so far seems to be uncommon in Papua New Guinea.

#### ***Dolichoctis laticollis* Baehr**

Baehr, 1999: 139

New record. 1♀, Irian Jaya, Nabire–Dist. Wondiwoi Mts. nr. Bawe, 150 m, 08/1998, leg. M. Balke (CBM).

#### Note

Thus far a rare species that was known only from the type locality in central Papua New Guinea. The new record considerably extends its range into the western part of New Guinea.

#### ***Dolichoctis spinipennis* Chaudoir**

Chaudoir, 1869: 251; Baehr 1999: 130

New record. 3♂, MALUKU: Is. Morotai, W. Daruba, Raja, 18,19/11/1999, 50-300 m, leg. A. Riedel (CBM, SMNS).

#### Note

For a long time this species was rendered synonymous with the more widespread *D. aculeata* Chaudoir. Baehr (1999) suggested that *D. spinipennis* most probably is a distinct

species, though he stated that it has only been known from the island of Batjan in the southern Moluccas and was apparently never recaptured since description. Newly collected material from Morotai Island that clearly agrees with both type specimens of *D. spinipennis* corroborates that *D. spinipennis* is a distinct species, and furthermore that it is more widely distributed in the Moluccas though probably restricted to this island group.

***Dolichoctis striata* Schmidt-Göbel**

Schmidt-Göbel, 1846: 62; Baehr 1999: 127

New records. Many specimens: Canopy Mission P. N. G., Madang province, Baiteta, at light, 05/06/1996 (several data), leg. Olivier Missa (IRSNB); 1♀ 1♂, P. N. G.: E New Britain, 30 km SW Kokopo, 5 km SW Arabam, 04° 35' 75" S, 152° 06' 84" E, 200 m, 25/02/2000, leg. A. Weigel KL (CBM).

**Note**

Many new records are available on this widespread and very common species, mostly sampled at light, in part also fogged from the canopy in lowland rain forest. The rich New Guinean material available to the author varies to a large degree in size, shape of pronotum and elytra, presence and/or extent of elytral markings, and depth of elytral striation. It seems, however, that, at least as the New Guinean records are concerned, this is a single species in spite of its apparent high degree of variability. However, specimens from Southern Asia on the one hand, and from Northern Australia on the other, differ to such a degree that their specific identity is highly doubtful. Examination of the whole complex is in progress, but the picture is not yet clear. For the present, therefore, this complex is considered a single 'species', and this may be true for the population occurring in the Papuan Subregion, although it is still unclear whether this population is conspecific with the name-bearing South Asiatic population.

***Dolichoctis subquadrata* Darlington**

Darlington, 1968: 130; Baehr 1999: 144

New records. 1♂ 2♀, Canopy Mission P. N. G., Madang province, Baiteta, at light, 04/05/1996, 10,12 VI 1996, leg. Olivier Missa (IRSNB).

**Note**

A rather widely distributed, easily identified species. The new records are from light traps exposed in lowland rain forest.

***Dolichoctis subrotunda* Darlington**

Darlington, 1968: 130; Baehr 1999: 144

New records. 3♂ 1♀, Canopy Mission P. N. G., Madang province, Baiteta, at light, 22/04/1996, 17,20/05/1996, leg. Olivier Missa (IRSNB).

**Note**

A small species with even wider distribution that appears right throughout New Guinea and also in North-eastern Australia. The newly recorded specimens were either sampled at light, or fogged from canopy in lowland rain forest.

***Dolichoctis suturalis* Darlington**

Darlington, 1968: 129; Baehr 1999: 147

New records. 2♀, Canopy Mission P. N. G., Madang province, Baiteta, at light, 18/03/1996, 23 V 1996, leg. Olivier Missa (IRSNB).

Note

Likewise, a rather common and wide-ranging species. Both mentioned specimens were collected at light.

Remarks

The new records reported herein in some ways alter distribution, but not the species inventory of the genus *Dolichoctis* in the Papuan Subregion. The new record of *D. spinipennis* Chaudoir corroborates its status as a separate species probably restricted to the Moluccas. The new record of *D. aculeata* Chaudoir from New Britain demonstrates the occurrence of this species in the Bismarck Archipelago.

At this point it should be stressed, however, that as long as we do not exactly know habits and life histories of the New Guinean *Dolichoctis*, because most recorded specimens were collected at light, little can be stated about ranges of the species and distribution pattern of the whole genus. At the same time, we are unable to estimate the population density of the species or even to distinguish between 'common' and 'uncommon' species, not to mention the reasons why any species should be 'uncommon'. Therefore, any considerations about frequency and distribution of the New Guinean *Dolichoctis* are preliminary; this applies even more to the species occurring on the Moluccas, the Bismarck Archipelago, and Solomon Islands.

Nevertheless, with a further new species described in another paper (Baehr, 2003) the status of New Guinea as a stronghold of endemism for the genus *Dolichoctis* is underlined, because the number of species common to New Guinea and South-east Asia again is reduced and apparently now only includes the widespread *D. striata* Schmidt-Göbel of the nominate subgenus, and *D. aculeata* Chaudoir of the predominantly Papuan subgenus *Spinidolichoctis* Baehr, which latter species —besides occurring on New Guinea, New Britain, and in Northern Australia— also occurs on Sulawesi and Buru Islands.

However, even the common 'species' *Dolichoctis striata* remains doubtful in some ways, because specimens at the authors disposal from the Philippine Islands, the Moluccas, various parts of New Guinea, New Britain, and Australia rather differ in certain aspects of their external shape and structure from those of the Greater Sunda Islands and continental South Asia, and thus, it is quite uncertain whether this complex can be maintained as a single 'species' in future. Presumably, it should be better —or even it must be— dismembered into subspecies or even separate species. This survey, however, is not yet finished and thus far, no clear picture has been gathered.

With regard to habits, the canopy fogging records of some species are worth noting, because habits and ecology of any New Guinean *Dolichoctis* species so far is barely known, since most available specimens were collected at light. Some records of specimens sifted from the bark of standing or fallen trees suggest a barkinhabiting way of life, but this opinion perhaps must be revised in view of the new fogging records. Certainly, *Dolichoctis* species may live on the bark, but the extent to which they also stay in the canopy or between branches, twigs, and leaves in the lower storey of trees, is uncertain.

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