

New data on Anillina of the Oriental Region

(Insecta, Coleoptera, Carabidae, Bembidiini)

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The author describes the male morphological characters of *Argiloborus burckhardti* Giachino, 2001, confirming that this species belongs to the “*A. thailandicus* group” (sensu Giachino 2001). *Argiloborus riedeli*, spec. nov. from Salawati Island (Irian Jaya) is also described. It belongs to the “*A. huberi* group” (sensu Giachino 2001). The geographical distribution of the “*A. huberi* group” is also analysed.

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Introduction

This paper deals with the study of two specimens of *Argiloborus* Jeannel, 1937 (Coleoptera, Carabidae, Anillina) from Sumatra and New Guinea that were kindly sent to the author by Martin Baehr, of the Zoologische Staatssammlung of Munich (Germany). They are the until now unknown male of *Argiloborus burckhardti* Giachino, 2001, and a male of an undescribed species.

The specimens dealt with in this work are preserved in the following collections

MHNG: Muséum d’Histoire Naturelle, Genève

ZSM: Zoologische Staatssammlung, München

Argiloborus thailandicus species group

The “*thailandicus* species group” is characterized by the following morphological characters: sides of the pronotum distinctly denticulate in front of the basal angles, aedeagus with a sclerified apical blade, parameres bearing only one apical seta.

Argiloborus burckhardti Giachino, 2001

Fig. 1

Material examined: Holotype ♀, Sumatra: W Sum., # 21, Palopo Nat. Res. N., Bukittinggi, 900 m, 18-20.XI.1989, Agosti – Löbl – Burckhardt leg. (MHNG); 1♂, W Sumatra, Batang, Palupu, Bukittinggi, 1400-1500 m, 19.10.1991, leg. A. Riedel (ZSM).

Diagnosis of the ♂: The examination of the male specimen of *A. burckhardti* completely confirms its attribution to the “*Argiloborus thailandicus* group” (sensu Giachino 2001) both on the reasons of its external morphology and for the characters of the aedeagus.



Fig. 1. *Argiloborus burckhardtii* Giachino, 2001. Aedeagus, lateral view. Scale: 0.1 mm.

The sizes of the male are as following: total length (from tip of mandibles to end of elytra) 1.15 mm. Pronotum slightly less transverse than in the female, with the ratio max. width/ max. length: 1.16; 1.27 in the female. Elytra a little narrower in the male (max. length/max. width ratio: 1.71; 1.57 in the female).

Protarsi pentamerous and not dilated in the male.

Aedeagus (Fig. 1) small, stocky, with a very developed apical blade, moderately sclerified and widely rounded. Internal sac provided, in the median area, with a large undulated copulatory piece that continues with obvious muscular bundles slightly sclerified in the preapical area. Parameres stocky and short, rounded apically and bearing one seta; basal nodules very obvious and well chitinised.

Argiloborus huberi species group

The “*huberi* species group” is characterized by the following morphological characters: sides of pronotum distinctly denticulate in front of the basal angles, aedeagus lacking of the sclerified apical blade, parameres bearing two apical setae.

Argiloborus riedeli, spec. nov.

Fig. 2

Types. Holotype: ♀, Irian Jaya, Sorong-Pr. Salawati Isl., Kalobo, 10-30 m, 19-22.X.1996, leg. A. Riedel (ZSM).

Diagnosis. It is an *Argiloborus* with features in accordance with the genus (*sensu* Giachino 2001): presence of a labial tooth bearing two setae, elytra not emarginate apically, type B umbilicate series (*sensu* Jeannel 1963) (the large pores of the umbilicate series are the 2nd, 6th, and 9th ones) with the 7th pore slightly nearer to the 8th than to the 6th one.

A. riedeli, spec. nov. differs from all other known species of this group by the greater body size as may be seen hereafter:

A. javanicus Giachino, 2001: 0.79 mm.

A. roberti Giachino, 2001: 0.83-0.87 mm.

A. huberi Giachino, 2001: 0.91-0.97 mm.

A. indonesianus Giachino, 2001: 0.95 mm.

A. balinensis Giachino, 2001: 1.08 mm.

A. riedeli, spec. nov.: 1.22 mm.

Description of the ♀ holotypus

Total length (from tip of mandibles to apex of elytra) 1.22 mm. Body elongated, depigmented, yellow testaceous, with elytra and abdomen of the same colour; integument opaque, obvious microsculpture, covered with a sparse and short pubescence (Fig. 2).

Head robust, hypertrophic, narrower than pronotum, anophthalmous. Antennae very short, thickened, clearly moniliform starting from the third antennomere, not reaching the base of pronotum when stretched backwards. Anterior margin of the epistome subrectilinear. Two supraorbital setae on each side, far from each other and placed on rows neatly converging backwards, plus a series of dispersed supranumerary setae not symmetrical between each other. Mandibles short, simple, without dorsal crests; labrum provided with 6 anterior marginal setae; labium transverse, articulated, bearing one obvious tooth on the anterior margin, epilobes poorly developed; labial tooth bearing two setae. Maxillary palps with the penultimate article very big, ovoidal elongated, and the last one tiny, poorly differentiated.

Pronotum slightly transverse (max. width/max. length ratio = 1.22), enlarged in front, narrowed at the base, with maximum width at about the anterior third. Sides poorly arcuated anteriorly, slightly sinuate in front of the base; clearly denticulate in front of the basal angles. Anterior angles widely rounded, not protruding; basal angles right and marked. Disk scarcely convex, with a short and sparse pubescence; median groove shallow, hardly marked. Marginal groove very wide and flat, enlarged near the base; anterior marginal setae inserted inside the marginal groove, at about the anterior sixth; basal setae at the back angles.

Elytra ovoidal, elongated, not emarginate preapically, without traces of striae. Disk poorly convex; integument opaque, with obvious microsculpture and short, sparse and erect pubescence. Humeri rounded, but well marked; post-humeral margin denticulate, with a distinct crenulation until the apical third. Marginal groove wide and obvious until the 9th pore of the umbilicate series.

Chaetotaxis: basal umbilicate pore large, foveate. Type B umbilicate series (the big pores of the umbilicate series are the 2nd, 6th, and 9th ones (sensu Jeannel 1963)); the first three pores of the humeral group are almost at the same distance from each other, the 4th pore is much farther and placed almost in the middle between the 3rd and the 5th ones; the 5th pore is at about the apical third of the elytron and slightly on the elytral disk, the 6th one is nearer to the 5th; the 7th, 8th, and 9th ones are at about the same distance from each other, the 8th one slightly on the elytral disk and a little nearer to the 9th; the 7th one is slightly nearer to the 8th than to the 6th. Discal pores missing.

Legs short and thickset; anterior tarsi pentamerous in the female.

Male unknown.

Derivatio nominis: This new species is dedicated to its collector Alexander Riedel of Stuttgart.

Distribution, ecology: *Argiloborus riedeli*, spec. nov. is known at present only from the type locality: Kalobo, on Salawati Island, at the western end of Irian Jaya. This new species was collected in October at the very low height of only 10-30 m a.s.l.

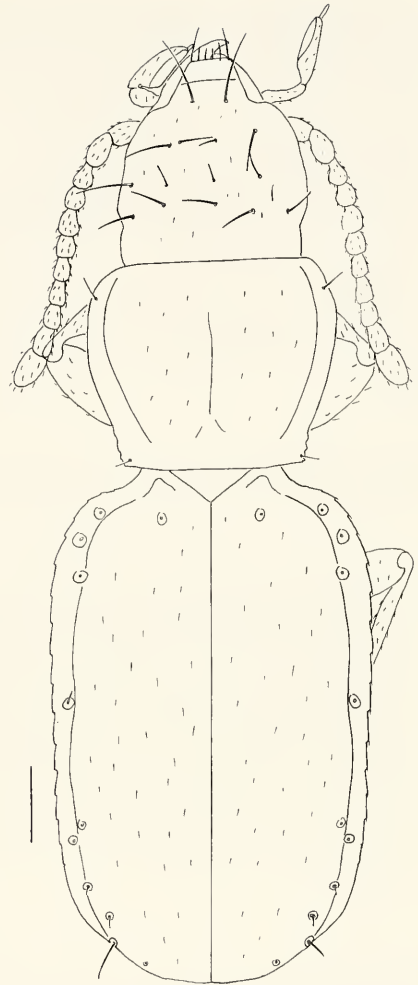


Fig. 2. *Argiloborus riedeli*, spec. nov. ♀ Holotype. Habitus. Scale: 0.1 mm.



Fig. 3. Distribution map of the *Argiloborus* of the "huberi species group".

Remarks

The *Argiloborus* species described recently by Giachino (2001), and in particular the one dealt with in this paper, have a peculiar zoogeographical meaning and further enlarge the presently known distribution area of the whole phyletic lineage of *Argiloborus*. The genus *Argiloborus*, in particular, has, as far as we now know, a very wide distribution that, starting from Madagascar, going through the Mauritius and Seychelles Isles, Ceylon and southern India, reaches the Malay peninsula and the Islands of Sumatra, Java, Bali and Salawati, trespassing the Weber line, that marks, between the Islands of Bali and Lombok, the border between the Oriental Region and the Australian Region for several groups of living organisms (Jeannel 1942) (Fig. 3). Presently, no Anillina are known from Borneo, Celebes and New Guinea (if we exclude the new species now known from Salawati Island), whereas in New Caledonia there is *Orthotyphlus* Zaballos & Mateu, 1998, of the *Zeanillus* phyletic series (sensu Jeannel 1963 and Moore 1980).

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