

# Taxonomic and synonymic notes about some Indonesian species of the genus *Acalolepta* Pascoe, 1858 (Coleoptera: Cerambycidae, Lamiini)

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*Summary:* Four Indonesian *Acalolepta*-species (*convexa* Pascoe, 1866; *solata* Pascoe, 1866; *bolanica* Aurivillius, 1926 and *solata nodias* Kriesche, 1936) are investigated. *Acalolepta bolanica* (Aurivillius, 1926) is considered as a senior synonym of *A. solata nodias* (Kriesche, 1936) **syn. nov.** *Acalolepta solata* (Pascoe, 1866) **comb. nov.** is removed from the synonymy with *Acalolepta convexa* (Pascoe, 1866).

*Ikhtisar:* Empat spesies *Acalolepta* yang ada di Indonesia (*convexa* Pascoe, 1866; *solata* Pascoe, 1866; *bolanica* Aurivillius, 1926 dan *solata nodias* Kriesche, 1936) diselidiki. *A. bolanica* (Aurivillius, 1926) dinilai sebagai sinonim senior dari *A. solata nodia* (Kriesche, 1936) **syn. nov.** *A. solata* (Pascoe, 1866) tidak lagi dinilai sebagai sinonim dengan *A. convexa* (Pascoe, 1866).

*Key-words:* Lamiinae, Moluccas, New Guinea, comb. nov., syn. nov.

## Introduction

The monograph of the tribe Lamiini, which Breuning published during the Second World War (Breuning, 1943, 1944), provided the first and until today a unique, world-wide study about this group. Nonetheless, the fact that he did not really know some types and the exterminate quantity of data led him to include several taxonomic errors, which subsequent authors evidenced. In particular, the genus *Dihammus* Thomson, 1864, (today *Acalolepta* Pascoe, 1858), widespread in the Oriental Region with more than 300 species, subspecies and forms, deserves a complete revision.

The opportunity to study the exotic collection of the Cerambycids preserved in the National Museum of Natural History of Luxembourg (MNHNL) has allowed me to investigate several old specimens collected in the same localities of the first

descriptors and to clarify some problematic topics regarding this group. Four Indonesian species – *A. convexa* (Pascoe, 1866), *A. solata* (Pascoe, 1866), *A. bolanica* (Aurivillius, 1926) and *A. solata nodias* (Kriesche, 1936) – will be treated in this paper.

## Historical preamble

Pascoe (1866) described *Monochamus convexus* from the Kai and *M. solatus* from Halmahera, Makian and Bacan, separating them through a rudimental key. The former, described from only one female, had the elytral apex nearly entire, while the latter had the elytral apex acutely spined at the outer side.

Later, Aurivillius (1926) described *Dihammus bolanicus* from some specimens of different regions of New Guinea: Mt. Bolan (Suruwaged Mts, Morobe, Papua New Guinea), Mimika river, Utaika river [= Utakwa river] and Mt Goliath [= Mt Yamin] (all located in Papua).

Finally, Kriesche (1936) described *Dihammus solatus nodias* from Mt Bolan, being uncertain whether this taxon was even a different species but evidencing a close resemblance with *D. solatus*, except for two fairly evident dark transversal bands on the elytra.

Breuning (1944) synonymised between them both Pascoe's species without supporting reasons, while he was uncertain regarding the identity of Kriesche's species, being unknown to him.

## Discussion

Four specimens of *A. solata* (1 male and 3 females) from Halmahera given by Pierre Hastert to the MNHNL in 1912 and two females of *A. bolanica* collected by Carlo A. Casadio in Wamena (Jayawijaya, Papua) in 1995, were examined.

The type of *D. solatus nodias* is possibly lost; nonetheless, a careful analysis of the mentioned species has allowed me to discover the identity of such species and to differently interpret the taxonomy of this group.

Firstly, all specimens of *A. solata* have long spines at the outer apex of elytra and three tubercles on the pronotum (Figs 1-2). No appreciable variability has been observed. According to Pascoe's original description, such characters are peculiar of this species and missing in *A. convexa*.

Secondly, according to Breuning and Gressitt (1952), *A. convexa* differs from *A. bolanica* in the stouter body and the shorter elytral spines. The former character is exact while the latter one does not seem referable to *A. solata* (Figs 1-2), which has spines analogue to those of *A. bolanica* (Fig. 3). Hence, such character should be referred only to *A. convexa*, corresponding to Pascoe's descriptions.

Thirdly, all females of *A. solata* (Fig. 2) have antennae 1.75 times as long as body (or less), the last four antennomeres surpassing the elytral apex. Pascoe did not mention antennal characters regarding such species but he stated that the female of *A. convexa* had antennae "twice longer than body". The same character is present in *A. bolanica* (Fig. 3), where the last five antennomeres surpass the elytral apex.

Fourthly, the male of *A. solata* (Fig. 1) has antennae evidently shorter than "3 times as long as body", as Breuning stated for the male of *A. convexa*.

Fifthly, the pattern *A. solata* (Figs 1-2) is extremely similar to that of *A. bolanica* (Fig. 3), which superficially differs in two fairly visible dark transversal bands on the elytra. This is just the only character that Kriesche noticed in the description of the subspecies *nodias*.

Actually, Kriesche was not very aware of the descriptions of other species: in the same paper he also described *D. lupinus* (synonym of *Niphohammus korolensis* Matsushita, 1932), *D. tavura* (synonym of *D. blairi* Breuning, 1935) and *D. tuttul* (synonym of *D. griseofasciatus* Breuning, 1935).

Sixthly, by analysing the chorology of these taxa, *A. bolanica* is isotopotypical with *A. solata nodias*, besides having the same characters, while *A. convexa* and *A. solata* are present in split islands, besides having different characters. Both are missing in New Guinea, where only *A. bolanica* is widespread.

Moreover, according to biogeographical studies (Boer & Duffels, 1996), Kai Islands and North Moluccas belong to different geographical regions; hence, it is improbable that the same species can colonise both regions in relatively recent times. Unfortunately, I did not manage to observe specimens of *A. convexa*; nonetheless, the characters provided by all authors regarding such species do not fit with the specimens from Halmahera, which Pascoe had already described as *A. solata*. Possibly, further investigations on a large number of specimens will lead to make finer the systematics of the mentioned species; however on the basis of the provided arguments the following conclusions can be drawn:

***Acalolepta bolanica*** (Aurivillius, 1926)

= *Dihammus bolanicus* Aurivillius, 1926 orig. comb.

= *Dihammus solatus nodias* Kriesche, 1936 **syn. nov.**

***Acalolepta solata*** (Pascoe, 1866) **revalidated, comb. nov.**

= *Monochamus solatus* Pascoe, 1866 orig. comb.

= *Dihammus convexus* (Pascoe) Breuning, 1943-44 partim

***Acalolepta convexa*** (Pascoe, 1866)

= *Monochamus convexus* Pascoe, 1866 orig. comb.

= *Dihammus convexus* (Pascoe) Breuning, 1943-44 partim

The previously mentioned species can be separated according to the following schema:

	<i>A. solata</i>	<i>A. bolanica</i>	<i>A. convexa</i>
Male ratio antennae/body	2	> 2	3
Female ratio antennae/body	< 1.75	2	2
Pronotal bulges	3	3	1
Elytral pattern	spotted	spotted with 2 transversal bands	spotted
Elytral spines	long	long	short
Distribution	Halmahera, Makian, Bacan	New Guinea	Kai

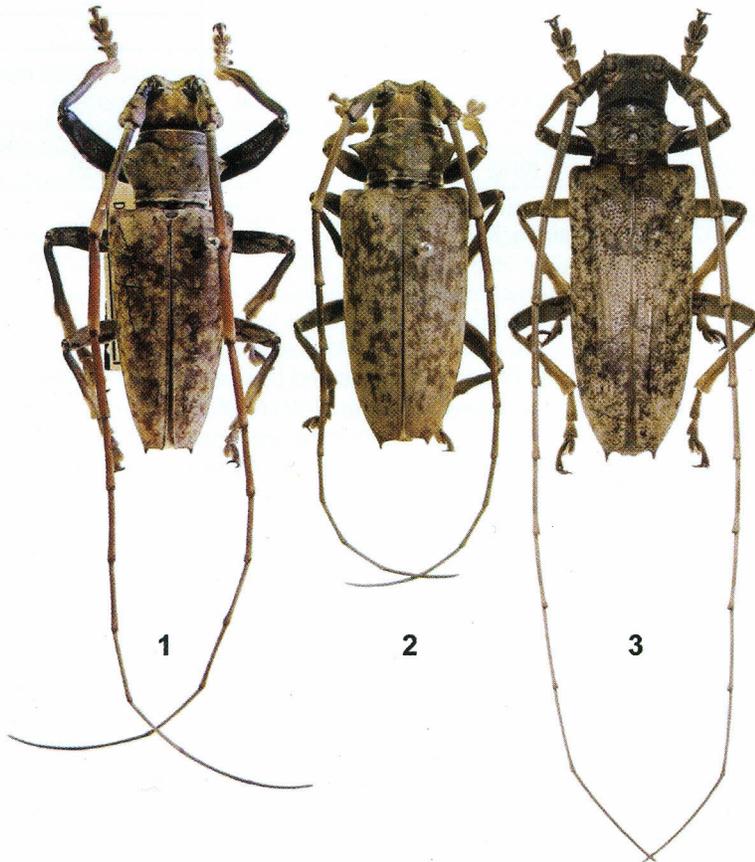
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**Fig. 1.** *Acalolepta solata* (Pascoe, 1866), male, Halmahera, MNHNL. **Fig. 2.** ditto, female, Halmahera, MNHNL. **Fig. 3.** *Acalolepta bolanica* (Aurivillius, 1926), female, Wamena, coll. F. Vitali.