

First record of *Morokia* Janson, 1905 outside of New Guinea Island with description of a new species (Coleoptera: Scarabaeoidea: Cetoniinae: Schizorhinini)

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Abstract. The cetoniine genus *Morokia* Janson, 1905 is firstly recorded outside of the New Guinea mainland, from Bacan Island lying in northern part of the Indonesian Moluccas. A still unknown and unexpected species is described as *Morokia moluccana* sp. nov., and is illustrated and compared with its congeners.

INTRODUCTION

The genus *Morokia* was established by Janson in 1905 for its type species *Morokia meeki* Janson, 1905 distributed in Papua New Guinea. Only three species have been added since that time, all also distributed in the Papua New Guinea mainland. A second added species was *Morokia viridiaenea* Moser, 1907, described from east part of Papua New Guinea. The distributional area of this species was recently enlarged (Rigout & Allard, 1997) and now the species is also known from western part of Indonesian West Papua (former Irian Jaya). Thereafter, *Morokia bennigseni* Heller, 1911, a historically third species of the genus was described; the insect is distributed in both parts of Papua New Guinea Island and seems to be the commonest in the group. The smallest species of the group, *Morokia antoinei* Allard, 1995, was added recently. It was described based on one male (Allard, 1995) and its female stays still undescribed. All the species were also pictured for the first time in the Allard's revisional work mentioned above.

It was rather surprising to see *Morokia* specimens outside of Papua New Guinea Island, from Bacan Island, lying in northern part of the Indonesian Moluccas. After examination and dissection of the male specimen, it became clear that the species is new to science. This new record dramatically changes the distributional area of the genus. In general, Cetoniine beetles recorded from Bacan belong to the typical Austro-Papuan fauna. Most genera recorded from the island have large distributional areas, stretching thousands of kilometres from the west Moluccas to Solomon Islands. Ten genera or subgenera of Cetoniinae are recently recorded from Bacan as follows: *Dilochrosis* Thomson, 1878, *Glycyphana* (*Caloglycyphana*) Mikšič, 1968, *Glycyphana* (*Euglycyphana*) Mikšič, 1968, *Glycyphana* (*Glycyphaniola*) Mikšič, 1968, *Protaetia* (*Netociomima*) Mikšič, 1963, *Ixorida* (*Mecinonota*) Kraatz, 1892, *Ischiopsopa* (s.str.) Gestro, 1874, *Lomaptera* (s.str.) Gory et Percheron, 1833, *Lethosesthes* Thomson, 1880 and *Poecilopharis* Kraatz, 1880. Except of *Lethosesthes*, which is endemic to the north part of the Moluccas (Bacan I., Halmahera I., Morotai I.) all other genera or

subgenera have large distributional areas - in *Poecilopharis*, *Ischiopsopha*, *Mecinonota*, *Netociomima*, *Glycyphaniola*, *Caloglycyphana* stretching from the Moluccas (or even more to west in *Glycyphaniola*, *Euglycyphana*, *Caloglycyphana*, *Mecinonota* and *Ischiopsopha*) to islands east of Papua New Guinea mainland, the Solomons or Vanuatu. Only *Euglycypha* does not reach Papua New Guinea, but is widely distributed in the Philippines and central to eastern parts of Indonesia. Beside *Tafaia* Valck Lucassen, 1939 and *Schochidia* Berg, 1898, representatives of *Morokia* have been regarded as genera endemic to the Papuan mainland. The endemic nature was supported by the fact that all the three discussed genera occur at high or very high altitudes of Papua New Guinea. Therefore record of *Morokia* from one of Moluccas islands is extremely interesting and can lead to a new theory and new distribution model. Unfortunately, the locality label of *Morokia moluccana* sp. nov. does not bear any information about the altitude. With a high probability, the insect was collected at a very high altitude of Mt. Sibela. This is also supported by fact, that all other Cetoniinae species native to Bacan are annually collected by local collectors operating only on lower slopes of the volcano, but all catches never contained any *Morokia* specimens. A theory might go that genera of high altitude Cetoniinae of Papua New Guinea might have also representatives occurring in highest peaks of Moluccan volcanoes of Bacan, Halmahera, Obi, Seram or other few other islands with enough high mountains. But of course especially due to extreme isolation of such places, except of commercial day butterflies, very few insects are known from peaks of Moluccan volcanoes.

MATERIAL AND METHODS

Body length was measured from the anterior margin of the clypeus to the apex of the elytra.

The holotype of the newly described species is provided with a red printed label bearing the name of the taxon, HOLOTYPE, sex symbol and St. Jákł det. 2014. Paratype is provided with a yellow label similar to that of the holotype, except PARATYPE instead of HOLOTYPE, the respective sex symbol and a collection number. Genitalia of single available male were dissected.

The type material is deposited in the following collections:

KSCP private collection of Kaoru Sakai, Tokyo, Japan;

SJCP private collection of Stanislav Jákł, Praha, Czech Republic.

TAXONOMY

Morokia moluccana sp. nov.

(Figs 1-5)

Type locality. Indonesia, N Moluccas, Bacan Island, Mt. Sibela.

Type material. Holotype (♂) labelled: Sibela/Bacan Is./Indonesia/III.1991, (SJCP). Paratypes: (No. 1, ♀): labelled same as holotype, (SJCP); (Nos. 2-5, ♂♂, Nos. 6-9, ♀♀): labelled same as holotype, (KSPC).



Figs 1-5. *Morokia moluccana* sp. nov.: 1- habitus dorsal aspect; 2- habitus ventral aspect; 3- habitus lateral aspect; 4- aedeagus; 5- aedeagus lateral aspect.

Description of holotype. Length (excluding pygidium) 29.5 mm, maximum humeral width 15.2 mm. Large and robustly looking, completely black (including legs). Dorsally with strong lustre, especially in costate elytra.

Head. Black, parallel. Lustre very strong, especially in frons. Punctuation moderately developed, frons with deep, circular punctures, punctuation of clypeus more or less with ovaly or semicircularly shaped punctures. Lateral margins parallel, lateral borders high and moderately sharp. Lateral declivities rather wide, with finer punctuation. Apical margin of clypeus very deeply incised, similarly shaped as other representatives of genus. Antennae

long, their setation reddish to brown, colouration of stalk blackish, pedicle dark brown to black.

Pronotum. Completely black, from base sharply narrowing to apex. Lateral sides with border, except of its anterior and posterior margins. Punctuation composed of fine, thin and circular punctures and much denser, simply developed micropunctuation. Near lateral margins, especially in postero- and anterolateral angles with few larger punctures, some of them horse shoe shaped. In front of anterolateral margins with shallow emargination. Large, basal lobe with fine micropunctuation, its apex incised.

Scutellar shield. Clearly developed, black, tiny, sharply triangular, impunctate.

Elytra. Completely black, metallic lustre stronger than in pronotum. Apex of elytra indistinctly brownish. Both elytra with typical costae running from base to level of humeral calli. Elytra intervals formed by mostly horse shoe shaped punctures in anterior half and more or less wavy shaped punctures in posterior half. Sutural ridge wider, but flat in anterior half, moderately elevated and narrower in posterior half. Termination of sutural ridge obtuse, not protruding over elytra apex. Apical calli missing, humeral calli present, but small and obtuse. Last apical fifth with dense and deep striolation.

Pygidium. Black to dark brown with mild lustre. Circularly shaped striolation present uniformly throughout total length. Mid part of apex rather deeply constricted.

Ventrum. Abdomen black, shining. Each segment of abdomen laterally striolate, its mid part almost impunctate. All segments with thinly distributed ochre to reddish setation, mainly near lateral sides. Medial impression wide, but rather shallow. Metasternum densely wrinkled laterally, its mid part with fine micropunctuation and strong lustre. Ochre to reddish setation of lateral margins longer than in abdomen, mid part almost impunctate, shining. Mesometasternal process very long, slender, in front of apex with constriction, apex rounded. Direction of mesometasternal process heading downwards, its apical third more sharply. Mesocoxae glabrous, with strong lustre, rounded, not adjoining. Prosternum and mentum very densely wrinkled, their setation very long and darker than in abdomen and metasternum.

Legs. Femurs, tibiae and tarsi black, claws and spurs brownish. Protibia unidentate. Metatibia simple, slender, inner part with moderately long reddish setation. Also anterior margins of profemora and posterior margins of meso- and metafemora with reddish setation.

Genitalia. Parameres completely symmetrical, with lobes in front of apex (Figs 4-5).

Variability. Size 28.3-30.4 mm. In other aspects similar to each other.

Sexual dimorphism. Females (Size 27.8-30.3 mm) available for study similar to males, except of structure of protibiae, which are tridentate, shorter and generally more robust than in males and except of abdominal impression, which is not present. Constriction in front of apex of mesometasternal process is not clear as in males.

Differential diagnosis. *Morokia moluccana* sp. nov. can be easily distinguished from its congeners by the following complex of characters:

- I. mesometasternal process of male with constriction in front of its apex,
- II. distinctly developed scutellum,

III. first interval of each elytron indistinctly developed,
IV. reddish setation of ventrum, femora and inner sides of meta- and mesotibia,
V. symmetrically shaped male parameres.
Completely different distributional area must be also considered.

Name derivation. Derived from the name of the Indonesian archipelago, lying between Sulawesi and Papua New Guinea.

Distribution. Indonesia, N Moluccas, Bacan Island, Mt. Sibela.

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