

Results of entomological expeditions to Misool Island, Part I. (Coleoptera: Scarabaeidae: Cetoniinae)

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Abstract. First flower beetles from remote Misool Island in the eastern part of the Indonesian Moluccas were collected. In the genus *Ischiopsopha* Gestro, 1874, two different taxa have been discovered, both new to science. Both belong to the nominotypical subgenus. The first of them, *Ischiopsopha (Ischiopsopha) misoolica* sp. nov. is compared with its close and single congener *Ischiopsopha (Ischiopsopha) lata* Jákl, 2013. The second taxon belongs to *Ischiopsopha (Ischiopsopha) nigriroba* Ritsema, 1879 known from mainland of New Guinea Island. Population from Misool Island is significantly different and it is compared here with the nominotypical population and described as *Ischiopsopha (Ischiopsopha) nigriroba insularis* ssp. nov. Both species are illustrated and their differential diagnoses with closest congeners are provided.

INTRODUCTION

Misool Island (formerly Mysol) is laying in eastern part of Indonesian Moluccas, east of the Weber line. Therefore the type of fauna is predominantly of Papuan origin. Only very few beetles is recorded from Misool, in Cetoniinae there are virtually no records, excepting *Glycyphana (Euglycyphana) lateralis perviridis* Wallace, 1867, which record is very questionable. Although approximately 20 species (450 specimens) of flower beetles have been recently collected in island, there is no single *Euglycyphana* among all specimens.

The results will be presented in several parts. In this first part author provides description of two new taxa in genus *Ischiopsopha* Gestro. The first one is a tiny, red-golden *Ischiopsopha misoolica* sp. nov. resembling *Ischiopsopha lata* Jákl from mainland New Guinea Island. The second one is an interesting population of *Ischiopsopha nigriroba* Ritsema, which is described as a new subspecies.

MATERIAL AND METHODS

The following codens of institutional and private collections are used in the text:
RMNH Rijksmuseum van Natuurlijke Historie, Leiden, the Netherland;
SJCP Stanislav Jákl, private collection, Praha, Czech Republic.

Specimens of the newly described species or subspecies are provided with red and yellow printed labels, red for HOLOTYPUS, yellow for PARATYPUS. Each holotype or paratype label is provided with sex symbol, number of paratype (in paratype label) and words St. Jákl det. Label data are cited for the material examined, individual labels are indicated by a double slash (//), individual lines by a single slash (/).

RESULTS

Ischiopsopa (Ischiopsopa) misoolica sp. nov.

(Figs. 1-5)

Type locality. Indonesia, West Papua Province, East Moluccas, Misool Island.

Type material. Holotype (♂) labelled: INDONESIA, West Papua / pr., MISOOL ISLAND / IV. 2016 / local collector Igt., (SJCP).

Description of holotype. Bright green with extreme golden-red lustre. Body size 19.5 mm (excluding pygidium).

Head. Rather long and narrow, coloration green with bright golden reflection. Clypeus slightly more than twice longer than frons. Shape of clypeus elliptical. Lateral declivities of clypeus hardly visible. Punctuation fine and simple, in clypeus denser, base of frons nearly impunctate. Incision of clypeus deep. Antennae reddish, length of club and stalk same.

Pronotum. Pronotal coloration bright green with extreme golden lustre. Sides narrowing gradually to apex. Lateral border moderately developed, excepting in posterolateral margins. Broad disc and basal lobe nearly impunctate, sides simply punctured, lateral margins with mixture of punctures and short striolate lines.

Scutellum. Tiny, triangularly shaped, coloration green.

Elytra. Rather wide, short. Its coloration bright green with extreme golden lustre. Subhumeral emargination shallow. Punctuation of disc very simple, each elytron with few irregularly running punctures lines. Posterior half of elytra and part of elytral apex with transversal striolation. Humeral calli almost obtuse, apical calli more developed. Apical third of sutural ridge elevated, but not protruding over elytral apex. Apex of each elytron straight.

Pygidium. Reddish to green with extreme golden lustre. Pygidial apex very obtusely rounded. Not very deep striolation present throughout whole length.

Ventrum. Green, strongly reflected. Abdomen with broad and moderately deep impression. Abdominal sides with very fine striolation. Metasternum glabrous, anterolateral margins finely striolate. Metasternal plate with black central line and long, narrow mesometasternal process, which is slightly pointed in apex. Prosternum and mentum green, strongly reflected, bearing reddish setation.

Legs. Femurs green to reddish with strong lustre. Tibia reddish with greenish reflection. Protibia bidentate. Tarsi blackish with reflection.

Genitalia. Basal half of parameres parallel, in apical half sharply narrowing to apex. Each paramere approximately of same width throughout its whole length (Figs. 4-5).

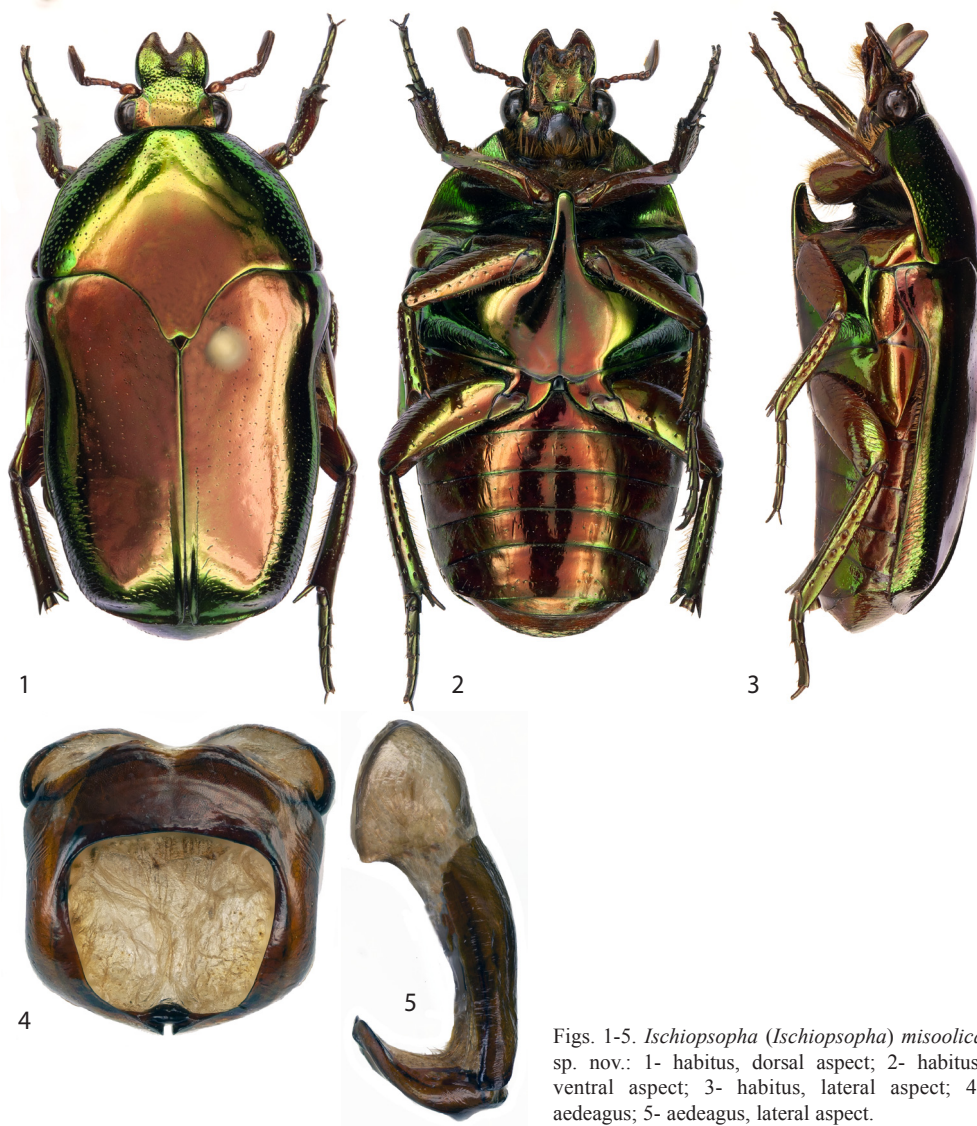
Variability and sexual dimorphism. Female unknown.

Differential diagnosis. In size, body shape (wide and short) and coloration similar with *Ischiopsopa* (s. str.) *lata* Jákl, 2013, described from the Nabire area in Indonesian New Guinea. New species *Ischiopsopa (Ischiopsopa) misoolica* sp. nov. differs in the following characters: I. Head elliptical in newly described species but parallel in its congener. II.

Sutural ridge not protruding over elytral apex in the newly described species, but with short protrusion in its congener. III. Coloration green with extreme golden lustre in sp. nov. but red, also extremely shining in its congener. IV. Parameres in sp. nov. rather narrow with same width throughout total parameral length, but much wider in apical half in its congener.

Etymology. Named after Misool Island, the type locality of the newly described species.

Distribution. INDONESIA: Eastern Moluccas, Misool Island.



Figs. 1-5. *Ischiopsopha (Ischiopsopha) misoolica* sp. nov.: 1- habitus, dorsal aspect; 2- habitus, ventral aspect; 3- habitus, lateral aspect; 4- aedeagus; 5- aedeagus, lateral aspect.

***Ischiopsopa (Ischiopsopa) lata* Jákl, 2013**

(Figs. 6-10)

Ischiopsopa (Ischiopsopa) lata Jákl, 2013: 460, figs. 6-10 (original description).

Type locality. Indonesia, West Papua, Kaladiri env., cca 20 km S of Nabire.

Type material. Holotype (♂) labelled: Indonesia, West Papua / KALADIRI env., cca 20 km S / of Nabire, 300 m alt./ I. 2009, local collector lgt., (SJCP).

Additional material examined. None.

Distribution. INDONESIA: West Papua Province, Nabire Region.

***Ischiopsopa (Ischiopsopa) nigriloba nigriloba* Ritsema, 1879**

(Figs. 11-15)

Ischiopsopa nigriloba Ritsema, 1879: 185 (original description); Mikšič 1978: 243 (in key), : 276 (in revision); Krajčik 1999: 23 (catalogue); Allard 1995: 36, pl. 13, fig. 6 (in French); 123 (in English) [monograph] ; Ritsema 1997: 37 (variability).

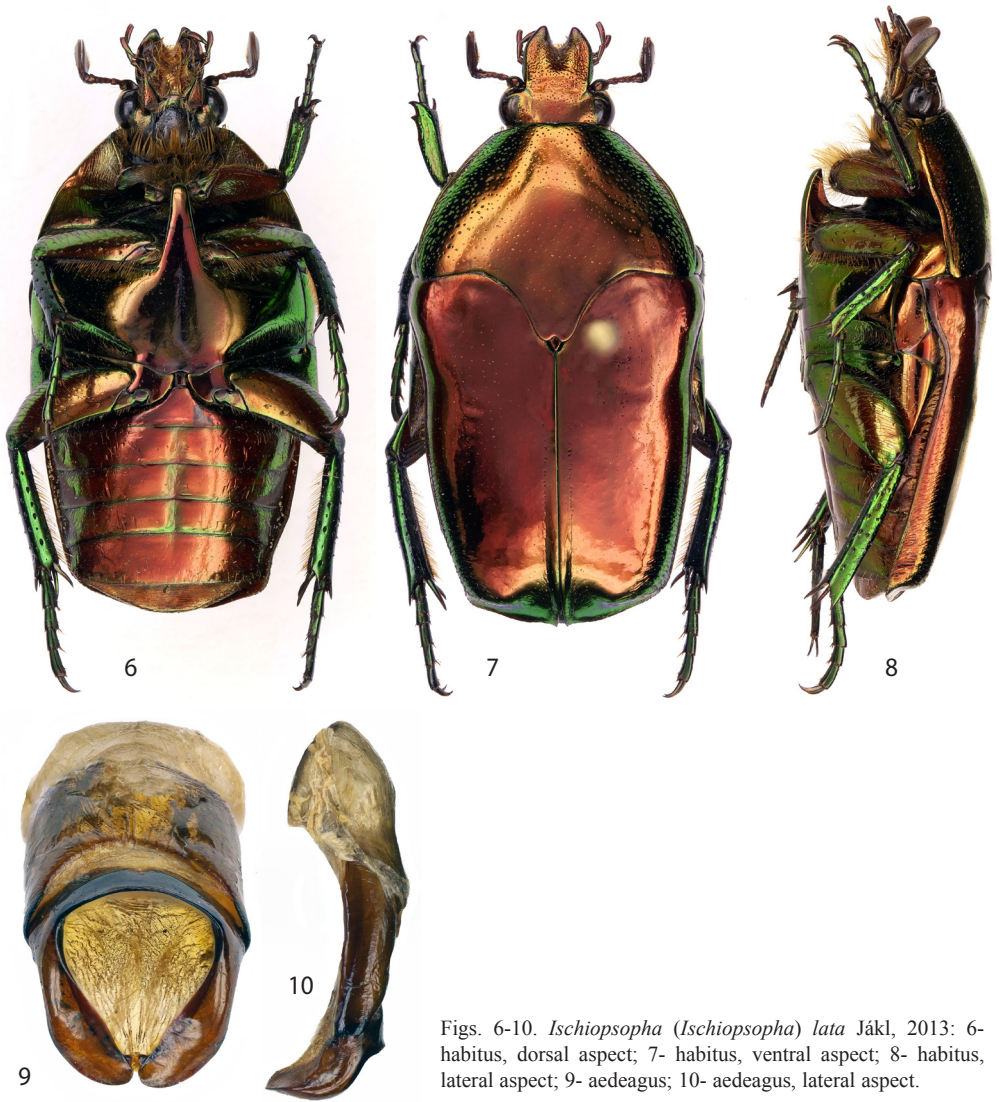
Type locality. “Doreh (New Guinea)” (= Arfak Mountains, West Papua Province, Indonesia).

Type material. Holotype (♀), (RMNH).

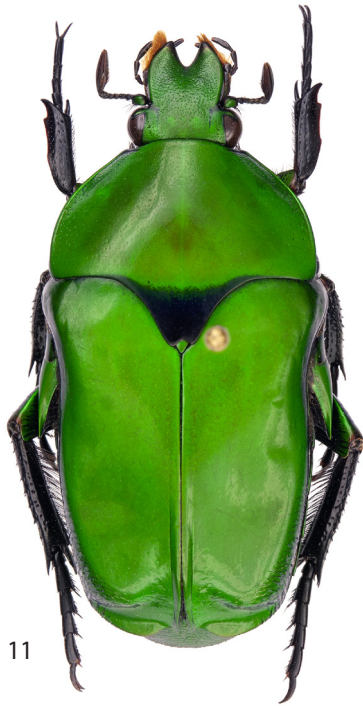
Additional material examined: 2 ♂♂, 2 ♀♀ labelled: Indonesia, W Iriyan Jaya / ARFAK MTS., PRAFI vill. / Local collectors, 12. 1999, (SJCP); 1 ♂, 2 ♀♀ labelled: Indonesia, SW Iriyan Jaya / FAK DISTR., 6. 2002 / Local collectors, (SJCP); 2 ♂♂, 1 ♀ labelled: INDONESIA, W. Papua pr. / KAIMANA env./ XI.2011 / local collector leg., (SJCP); 5 ♂♂, 2 ♀♀ labelled: Indonesia, West Papua pr. / KALADIRI ENV., 150-400 m/ cca 25 km S of Nabire / 12. 2007, local collector lgt., (SJCP); 3 ♂♂, 3 ♀♀ labelled: Indonesia, WEST PAPUA prov. / GORAS ENV., 12. 2007 / local collectors lgt., (SJCP).

Distribution. INDONESIA: West Papua province.

Note. In Sakai & Nagai (1998) species was incorrectly attributed to *Ischiopsopa (Ischiopsopa) dives* Gestro, 1876.



Figs. 6-10. *Ischiopsopa (Ischiopsopa) lata* Jákl, 2013: 6- habitus, dorsal aspect; 7- habitus, ventral aspect; 8- habitus, lateral aspect; 9- aedeagus; 10- aedeagus, lateral aspect.



11



12



13



14



15

Figs. 11-15. *Ischiopsopha (Ischiopsopha) nigriloba* Ritsema, 1879: 11- habitus, dorsal aspect; 12- habitus, ventral aspect; 13- habitus, lateral aspect; 14- aedeagus; 15- aedeagus, lateral aspect.

***Ischiopsopa (Ischiopsopa) nigriroba insularis* ssp. nov.**
(Figs. 16-20)

Type locality. Indonesia, West Papua Province, Eastern Moluccas, Misool Island.

Type material. Holotype (♂) labelled: INDONESIA, West Papua / pr., Misool Island / XI. 2016 / local collector leg., (SJCP). Paratypes: (Nos. 1-8 ♂♂, No. 9 ♀) labelled: same as holotype, (SJCP); (No. 10 ♂, No. 11 ♀) labelled: same as holotype, but XII. 2017, (SJCP).

Description of holotype. Grassy green with black pronotal basal lobe and elytral base. Size 23.1 mm (excluding pygidium).

Head. Parallel-sided, anterior third of clypeus gradually narrowing to apex. Coloration green, clypeus slightly longer than frons. Punctuation rather dense, in clypeus diameters of punctures larger than interspaces, in frons punctuation finer. Antennae black, scape greenish, club shorter than stalk.

Pronotum. Grassy green with moderate lustre, basal lobe and pronotal base black. Lateral border present, except of posterolateral margins. Punctuation fine and simple, disc nearly impunctate. Tiny green, approximately triangular.

Elytra. Slightly narrowing from base to apex. Coloration green with moderately developed lustre, base of elytra black. Punctuation very fine or nearly impunctate. Lateral sides striolate in posterior half. Apex of each elytron with emargination beside sutural ridge. Humeral calli absent, apical calli moderately developed, striolate. Sutural ridge slightly elevated in posterior half, its protrusion over elytral apex moderately present.

Pygidium. Green, dorsal side with dense striolation, striolation in ventral side thinner.

Ventrum. Green with black margins and sides of abdominal segments. Abdominal impression deep. Abdomen and mesosternum glabrous, prosternum and mentum striolate. Mesometasternal process long, apically obtusely pointed.

Legs. Femurs green with striolation and black setation in posterior margins. Tibia black with metallic lustre. Tarsi black. Protibia bidentate with third very obtuse and reduced tooth.

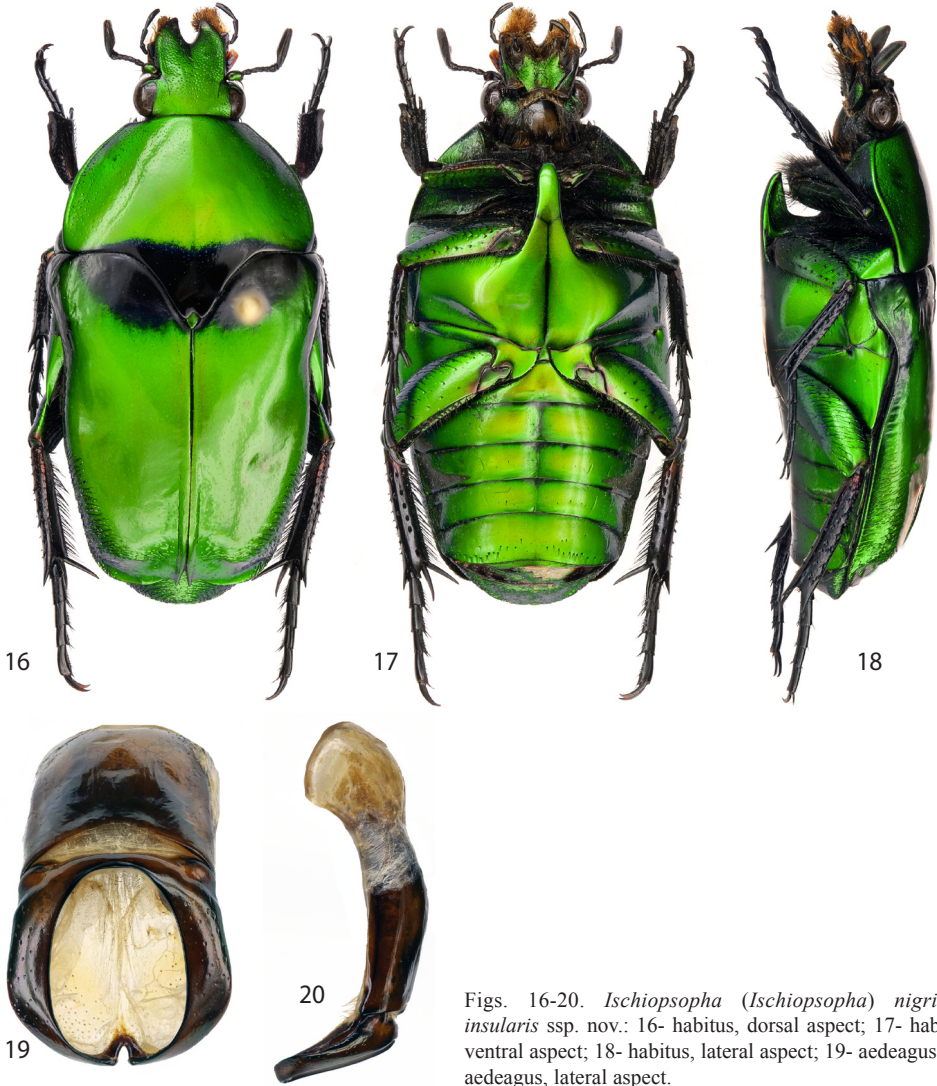
Genitalia. Nearly parallel, in apical part sharply narrowing (Figs. 19-20).

Variability. Size 21-24 mm. In other characters without variability.

Sexual dimorphism. Size 22-23 mm. Protibia more robust, tridentate, teeth sharp. Abdomen arched, missing impression. In other characters similar to males.

Differential diagnosis. The new taxon differs from the nominotypical subspecies in enlarged black parts of the pronotum and elytra. In the nominotypical subspecies usually only with black pronotal lobe and sometimes also with black part of pronotal base, in the newly described subspecies with broad black area covering base of pronotum, pronotal lobe and base of elytra. Average size smaller in the newly described subspecies. Genitalia similar (Figs. 14-15).

Etymology. The name *insularis* taken from Latin (island)



Figs. 16-20. *Ischiopsopa (Ischiopsopa) nigriroba insularis* ssp. nov.: 16- habitus, dorsal aspect; 17- habitus, ventral aspect; 18- habitus, lateral aspect; 19- aedeagus; 20- aedeagus, lateral aspect.

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