

**Two new species of *Ischiopsopa* (s. str.) Gestro, 1874 from tiny, isolated islands of eastern part of Indonesia (Coleoptera: Scarabaeidae: Cetoniinae)**

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**Taxonomy, faunistics, new species, Coleoptera, Scarabaeidae, Cetoniinae, *Ischiopsopa*, Indonesia, Solomon Islands**

**Abstract.** *Ischiopsopa* (*Ischiopsopa*) *wangiensis* sp. nov. from Wangi Wangi Island in Tukangbesi Archipelago (SE of Sulawesi) and *Ischiopsopa* (*Ischiopsopa*) *keitanis* sp. nov. from Kei Tanimbar Island (SE Moluccas). Both new taxa are illustrated and compared with their congeners.

## INTRODUCTION

*Ischiopsopa* was established by Gestro in 1874. It was Schurhoff, who described genus *Homeopsopa* in 1934. *Homeopsopa* was declined from its full generic rank to the subgeneric level by Krikken in 1980. This concept has been accepted by all authors until now. Beside Krikken's revision, dealing only with *Homeopsopa* species, *Ischiopsopa* sensu stricto species were revised by (Mikšič, 1978) and a revision of both subgenera was provided by (Allard 1995). All other works (Willemstein 1971, Krikken 1983, Delpont 1995, 2009, Rigout & Allard 1997, Alexis & Delpont 2000, Audureau 2000, Krajičik & Jákł 2007, Devecis 2008, Mitter 2012, Jákł 2013) are just partial, usually adding new species in both subgenera. This paper has same purpose as mentioned above, descriptions of four new species, all from nominotypical subgenus.

All species described in the present study come from very tiny and remote islands. *Ischiopsopa wangiensis* sp. nov. comes from Tukangbesi Archipelago, laying in the westernmost edge of the *Ischiopsopa* distributional areal. We even already have another species, *Ischiopsopa tomiensis* Schurhoff, 1934, originating from the same archipelago; the new species is much more allied with the species flying in Seram, Ambon and Kelang islands in central Moluccas. The second new Indonesian species, *Ischiopsopa keitanis* sp. nov. was discovered in a very small island lying between Kei and Aru Archipelagos, respectively from Tanimbar Kei Island. The name of the island might be a bit confusing as the island lies far from the Tanimbar Archipelago, not between Kei and Tanimbars, how the logic can go, but east of Keys on the way to the Aru Islands.

Only 39 recently valid *Ischiopsopa* species is listed in (Schenkling 1921). Including species described in this study, recent number of taxa in both subgenus stays on 87 species and 19 subspecies. Due to fact, that even very small islands have endemic species, the total number will be surely rising in future, in author's personal opinion especially in a circle of islands around east parts of New Guinea Island and in all interconnecting islands between PNG and Solomons.

## MATERIAL AND METHODS

The following codens of institutional and private collections are used in the text:

- JLCP Jean-Philippe Legrand, private collection, Paris, France;  
KSCP Kaoru Sakai, private collection, Tokyo, Japan;  
NMPC National Museum (Natural History), Praha, Czech Republic;  
SJCP Stanislav Jákl, private collection, Praha, Czech Republic.

Specimens of the newly described species are provided with one printed, red label for HOLOTYPUS or yellow label for PARATYPUS, sex symbol, number of specimen and St. Jákl det. 2015. Exact label data are cited for the material examined, individual labels are indicated by a double slash (//), individual lines of every label by a single slash (/).

The following specimens were compared with the newly described species:

- Ischiopsopha (Ischiopsopha) arouensis* Thomson, 1857 - 15 ♂♂, 8 ♀♀ (Figs. 11-15);  
*Ischiopsopha (Ischiopsopha) ceramensis* Wallace, 1867 - 15 ♂♂, 18 ♀♀ (Figs. 16-20);  
*Ischiopsopha (Ischiopsopha) tomiensis* Schurhoff, 1934 - 2 ♀♀ (Figs. 21-23);  
*Ischiopsopha (Ischiopsopha) ritsemiae celebensis* Allard, 1995 - 7 ♂♂, 6 ♀♀.

## TAXONOMY

### *Ischiopsopha (Ischiopsopha) wangiensis* sp. nov.

(Figs. 1-5)

**Type locality.** Indonesia, SE Sulawesi, Tukangbesi Archipelago, Wangi Wangi Island.

**Type material.** Holotype (♂) labelled: INDONESIA, SE Sulawesi /TUKANG BESI IS. / Wangi Island/XI. 2014, local collector leg., (SJCP). Paratypes (Nos. 1-20 ♂♂, 21-40 ♀♀): same as holotype. Paratypes deposited in (SJCP, KSCP, NMPC, JLCP).

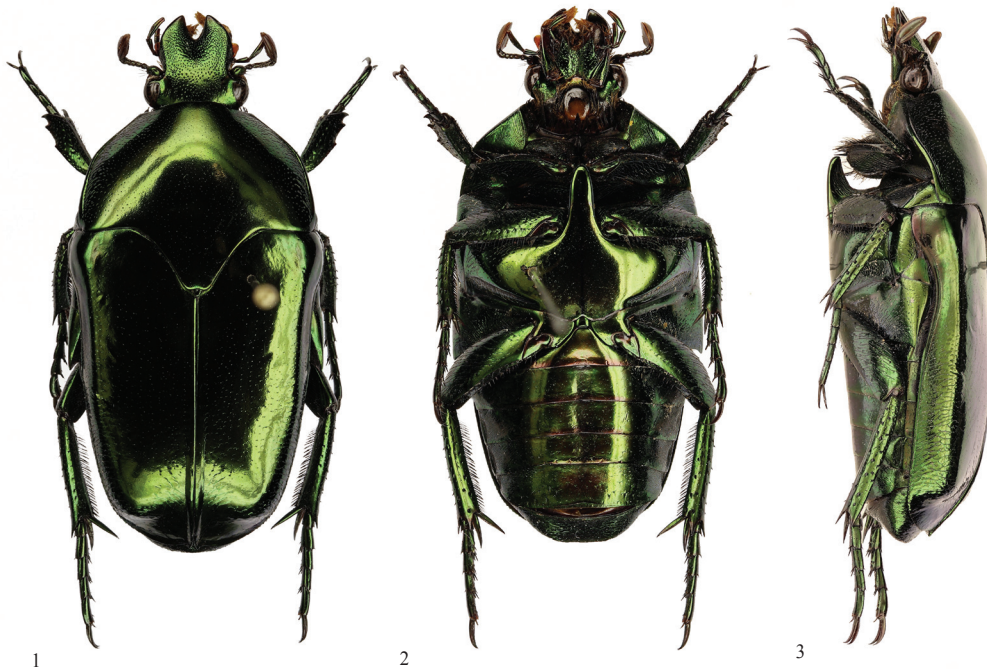
**Description of holotype.** Body elliptical, colouration grassy green with strong lustre. Size (excluding pygidium) 26.4 mm, maximum humeral width 12.0 mm.

Head. Frons green and shining, its punctation fine and simple, diameters of punctures circularly developed. Clypeus same coloured, punctation denser, diameters of punctures larger, sides with striolation. Apex of clypeus with typical deep incision, apical margin blackish. Setation absent. Antennae rather short, colouration of scape green, pedicel blackish, club brown with reflection.

Pronotum. Grassy green, reflected. Punctation very fine, several times thinner than punctation of head. Sides with thin and simple striolation, disc almost glabrous. Lateral margins bordered throughout total length. Setation absent.

Scutellar shield. Very small, green, impunctate, triangularly shaped.

Elytra. Green with light golden reflection, from base gently narrowing to apex. Punctation similarly developed as in pronotum, very fine, simple and thin. Two posterior thirds with lateral striolation, which is present also on humeral calli. Lateral ridge sharply developed. Subhumeral emargination mild. Apical calli flat, humeral calli obtuse with rather deep, but thin striolation. Sutural ridge in anterior half completely flat, its posterior half mildly elevated, protruding slightly over the elytra apex.



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

Pygidium. Grassy green with mild lustre. Circularly striolated throughout total length. Apex almost straight.

Ventrum. Green with reflection. Abdomen with rather deep and wide impression reaching 1st and 5th ventrites. Lateral sides of abdomen with fine, but dense striolation, disc with almost indistinct punctation. Metasternum green, shining, almost impunctate. Its posterior margins with striolated impression, sides also striolated. Midline of metasternum violet to blackish. Mesometasternal process green, narrow, apex rather sharp, reaching level of procoxae. Prosternum green, its whole surface striolated. Ventral setation absent.

Legs. Femurs green, striolated, pro- and mesofemurs with black setation on margins. Tibia and tarsi green, colouration of tarsi darker, clavus brownish. Protibia tridentate, posterior tooth approximately three times more distanced than first two anterior teeth. Meso- and metatibia not carinate. Inner side of meso- and metatibia with medially developed black setation, outer sides with 7-8 tiny, blackish spines.

Genitalia. (Figs. 4-5) Species with wide and robust male parameres throughout length, mid part with medially developed emargination.

**Variability.** Apart of size (24.4-26.4 mm) completely same.

**Sexual dimorphism.** Size of females 24.4-26.1 mm. Punctation of head, pronotum and elytra more developed. Protibia wider, shorter and more robust, teeth of protibia almost equidistant. Abdomen missing impression, its 5<sup>th</sup> segment with large punctures, each bearing blackish seta.

**Differential diagnosis.** This species is already a second *Ischiopsopha* found in the Tukangbesi Archipelago. From *Ischiopsopha (Ischiopsopha) tomiensis* Schurhoff, the male of which stays unknown, it can be distinguished by its general shape of body, which is broader and more parallel in *I. tomiensis*, but more elongate and narrower in the new species, by much denser dorsal and ventral punctation in *I. tomiensis*, by a more obtuse lateral ridge of elytra, which is almost vertical in the new species and by a very shallow subhumeral emargination of elytra, which is deeper in the newly described species. At first glance the newly described species more resembles *Ischiopsopha ceramensis*. Beside a very different structure of male parameres this species flying in central Moluccas, differs in very diminished or missing lateral striolation of the pronotum and in contrary by the presence of thin striolation of the elytra. Good character are also differently positioned teeth of male protibia, which are almost equidistant in *I. ceramensis*, but with posterior tooth far from two anterior ones in the new species. The ventral setation of both sexes is yellowish in *I. ceramensis*, but black in *I. wangiensis*.

**Etymology.** Named after the Wangi Wangi Island.

**Distribution.** Indonesia, SE Sulawesi, Tukangbesi Archipelago, Wangi Wangi Island.

***Ischiopsopa (Ischiopsopa) keitanis* sp. nov.**  
(Figs. 6-10)

**Type locality.** Indonesia, SE Moluccas, Kei Tanimbar Island.

**Type material.** Holotype (♂) labelled: INDONESIA, SE Moluccas / KEI TANIMBAR I., V. 2010 / (between Aru Is. and Kei Is.) / local collector leg., (SJCP). Paratypes (Nos. 1-4 ♂♂) labelled: same as holotype; (Nos. 5-22 ♂♂, No. 23-31 ♀) labelled: INDONESIA, S Moluccas / KEI TANIMBAR ISL. / local collector, 5/2000. Paratypes deposited in (SJCP, KSCP, NMPC, JLCP).

**Description of holotype.** Smaller, green-olive species with medially developed lustre. Size (excluding pygidium) 24.0 mm, maximum humeral width 11.3 mm.

**Head.** Frons green, punctation fine and simple. Clypeus with similar colouration and punctation, but density of punctures higher. Apex of clypeus typically deeply incised, its apical margins blackish with metallic lustre. Antennae short, colouration of scape dark green, rest of pedicel and club brownish. Setation of antennae whitish.

**Pronotum.** Green with medially developed lustre. Punctation fine and simple, its density lower than in head. Lateral sides with simple striolation. Border of lateral sides running throughout total length. Also lateral sides of anterior margin with vague border.

**Scutellar shield.** Green, tiny, triangularly shaped, impunctate.

**Elytra.** Colour little bit darker than in pronotum and head. Metallic lustre rather strong. Anterior half with simple and fine punctation. Striation of posterior half very dense in lateral ridge and humeral calli, beside sutural ridge and in apex finer. Lateral ridge rather obtusely developed. Apical calli present, but obtuse, humeral calli also flat with medially dense striolation. Sutural ridge flat, in its posterior third mildly elevated, only indistinctly protruding over elytra apex.

**Pygidium.** Dark green, semicircularly shaped, bearing rather deep and dense striolation throughout total length.

**Ventrum.** Dark green to olive, reflected. Abdominal impression rather wide and deep. Sides of each abdominal segment with dense, fine striolation, disc of abdomen almost impunctate. Metasternum green with blackish/violet midline. Sides of metasternum striolated, punctation of disc absent. Mesometasternal process narrow, rather long and sharp, its apex heading straight. Prosternum darker, deeply striolated. Dark brown setation present only around procoxae and posterior margin of mentum.

**Legs.** Short and rather robust. Femurs green, striolated. Tibia and tarsi green, tarsi darker, clavus brownish. Protibia tridentate, both posterior teeth obtuse. Distance between posterior tooth and two anterior teeth approximately triple than between two anterior teeth.

**Genitalia** (Figs. 9-10) Parameres medially wide, mid part rather deeply emarginated.

**Variability.** Size 22.2-24.0 mm. All males generally very similar to each other. Some with extremely reduced both posterior teeth of protibia.

**Sexual dimorphism.** Size of single available female 21.6 mm. Protibia shorter and more robust. Punctation of head more developed. Posterior ventrite with punctures, some bearing short setae. Other characters same as in males.



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Figs. 6-10. *Ischiopsopa (Ischiopsopa) keitanis* sp. nov.: 6- habitus dorsal aspect; 7- habitus ventral aspect; 8- habitus lateral aspect; 9- aedeagus; 10- aedeagus lateral aspect.



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Figs. 11-15. *Ischiopsopha* (*Ischiopsopha*) *arouensis* Thomson, 1857: 11- habitus dorsal aspect; 12- habitus ventral aspect; 13- habitus lateral aspect; 14- aedeagus; 15- aedeagus lateral aspect.



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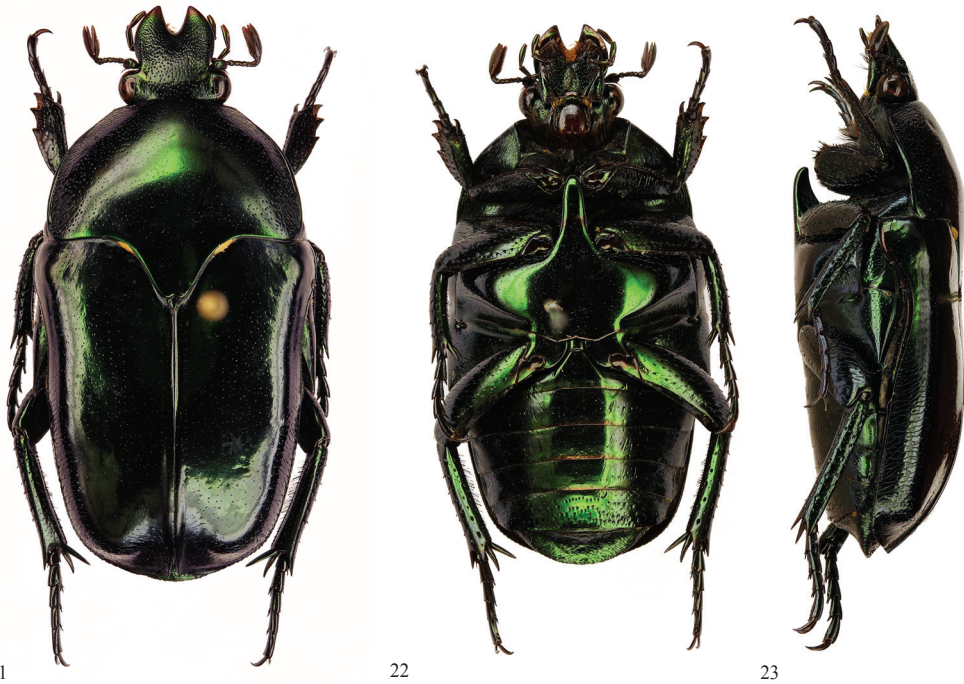
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Figs. 16-20. *Ischiopsopha (Ischiopsopha) ceramensis* Wallace, 1967:  
16- habitus dorsal aspect; 17- habitus ventral aspect; 18- habitus lateral  
aspect; 19- aedeagus; 20- aedeagus lateral aspect.





Figs. 21-23. *Ischiopsopha (Ischiopsopha) tomiensis* Schurhoff, 1934: 21- habitus dorsal aspect; 22- habitus ventral aspect; 23- habitus lateral aspect.

**Differential diagnosis.** The newly described species is closely allied to *Ischiopsopha arouensis* Thomson. Although both species are very similar to each other, there are some distinct characters separating them from each other. Punctuation of pronotum and elytra in the newly described species is fine and simple, but present throughout the total length, but missing in *Ischiopsopha arouensis* (except of micropunctuation of pronotum). Pronotal striolation in *I. arouensis* only indistinctly developed beside lateral margins, but rather broad in the new species. Green colouration in the newly described species lighter with stronger reflection than in *I. arouensis*. Male parameres of examined congeners distinctly different. In the new species, the parameres are broad, with a rather deep emargination approximately at basal third, but narrower, elongate and with a shallower emargination in *I. arouensis*.

**Etymology.** Consisting of the initial letters of the island - the type locality, Tanimbar Kei Island.

**Distribution.** Indonesia, SE Moluccas, Kei Tanimbar Island.

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