

**Taxonomical notes about *Miksicus* Özdikmen & Turgut, 2009 and
Miksicoprottaetia Legrand & Chew Kea Foo, 2010, subgenera of *Protaetia*
Burmeister, 1842, with descriptions of new species
(Coleoptera: Scarabaeidae: Cetoniinae)**

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**Taxonomy, redescription, new species, new synonymy, new combination, new status, *Protaetia*, *Miksicus*,
Miksicoprottaetia, *Lawangia*, Oriental Region, Australian Region**

Abstract. Similarly looking representatives of *Miksicus* Özdikmen & Turgut, 2009 and *Miksicoprottaetia* Legrand & Chew Kea Foo, 2010, subgenera of *Protaetia* Burmeister are studied. Study of approximately 400 specimens of *Protaetia* (*Miksicus*) *acuminata* Fabricius, 1775 revealed that populations flying across its large distributional area are not conspecific. Distribution of this species is here corrected and two new species are described, *Protaetia* (*Miksicus*) *oceanica* sp. nov. from isolated Enggano Island (Indonesia) and *Protaetia* (*Miksicus*) *austrosundana* sp. nov. from Sumba and Sumbawa Islands in Lesser Sundas (Indonesia). *Protaetia* (*Miksicus*) *acuminata* *baveanica* Mikšič, 1965 and *Protaetia* (*Miksicus*) *acuminata* *freudei* Mikšič, 1962 are raised to species level. *Lawangia* Schenkling, 1921 is withdrawn from synonymy with *Protaetia* Burmeister, 1842 and it is here considered as a valid subgenus of *Protaetia* Burmeister, 1842. *Protaetia* (*Miksicoprottaetia*) Legrand & Chew Kea Foo, 2010 is synonymised with *Protaetia* (*Lawangia*) Schenkling, 1921. *Protaetia* (*Miksicus*) *binghami* Arrow, 1910 is transferred to *Protaetia* (*Lawangia*) Schenkling, 1921 and description of its male is given. New replacement name *Protaetia* (*Miksicus*) *kaorusakii* nom. nov. is proposed for *Protaetia* (*Miksicus*) *sakaii* Jákł, 2011 due to homonymy. Five species of *Miksicus* Özdikmen & Turgut, 2009 and one species of *Lawangia* Schenkling, 1921 are pictured, including aedeagi of males and compared with their relatives. New distributional records for several species are given.

INTRODUCTION

Urbania Mikšič, 1963 was established as a subgenus of *Protaetia* Burmeister, 1842 with the type species *Cetonia acuminata* Fabricius, 1775. At the time of description author placed 5 species into newly described subgenus, two species from the Philippines and three from Indo-Malay region, Andaman and Nicobar Islands and part of continental Asia. Same author raised subgenus to generic level in 1979. Krajčič (1998) lists 7 species and two subspecies in his catalogue. Özdikmen & Turgut (2009) proposed replacement name *Miksicus* due to homonymy (nec Hampson, 1901) and listed 7 species and three subspecies. Later Krajčič (2011) treated *Miksicus* Özdikmen & Turgut, 2009 as a subgenus of *Protaetia* Burmeister, 1842. This concept is used until now.

Eight species and three subspecies is currently recognised, with distribution encompassing large part of continental southeast Asia (NE India, Myanmar, Thailand, Laos, Vietnam, Cambodia, Malaysia), Andaman and Nicobar Islands in Indian Ocean, Indonesian Great Sundas, western part of Lesser Sundas and the Philippines. Excepting *Protaetia* (*Miksicus*) *acuminata* Fabricius, 1775, which distribution is extremely large, all other species are endemic usually to

one island. Mikšič (1982) recorded commonest species *P. (Miksicus) acuminata* Fabricius, 1775 from continental Asia (NE India, Myanmar, Thailand, Laos, Vietnam, Cambodia, Malaysia), Great Sundas and part of Lesser Sundas with three subspecies occurring in Bawean Island (between Java and Kalimantan), in Java, and in Andaman and Nicobar Islands. Author of this article examined approximately 400 specimens of *Miksicus* Özdikmen & Turgut, 2009 collected across the whole distribution including some new localities, especially some isolated islands in Indonesia. This study revealed that populations of *Miksicus acuminata* Fabricius, 1775 flying in continental Asia and part of Indonesian Great Sundas are conspecific, but specimens from part of Great Sundas and whole Lesser Sundas (Indonesia) are significantly different. Partial results of this study are published in taxonomical part of this paper.

Protaetia (Miksicus) binghami Arrow, 1910 is extremely rare species and its male stays unknown. The study of the type (female) from Tenasserim and additional male collected in Thailand revealed that the species belongs to subgenus *Lawangia* Schenkling, 1921 and it is thus transferred to this subgenus with description of the male.

Replacement name *Protaetia (Miksicus) kaorusakii* nom. nov. is proposed for *Protaetia (Miksicus) sakaii* Jákl, 2011 (nec Kobayashi, 1994).

MATERIAL AND METHODS

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

- BMNH British Museum Natural History, London, United Kingdom;
- CNHM Hrvatski Prirodoslovni Muzei, Zagreb, Croatia;
- RMNH Rijksmuseum van Natuurlijke Historie, Leiden, The Netherland;
- SJCP Stanislav Jákl private collection, Praha, Czech Republic;
- ZMHB Museum für Naturkunde, Leibniz-Gemeinschaft, Berlin, Germany;
- ZSMC Zoologische Staatssammlung München, Germany.

Specimens of newly described species 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

Protaetia (Miksicus) Özdikmen & Turgut, 2009

Protaetia (Urbania) Mikšič, 1963: 359 (original description), 1965: 91.

Urbania Mikšič: Mikšič, 1979: 232, 221 (generic key), 1982: 86 (monograph); Krajčák, 1998: 50 (catalogue); Sakai & Nagai, 1998: 291 (iconography); Legrand & Chew Kea Foo, 2010: 35 (Cetoniidae of Sabah).

Miksicus Özdikmen & Turgut, 2009: 227 [*Urbania* Mikšič, 1963 = junior homonym of *Urbania* Hampson, 1901 (Lepidoptera)].

Protaetia (Miksicus) Özdikmen & Turgut: Krajčák, 2011: 38 (Cetoniidae of China); Jákl, 2020: 20 (*Protaetia* of Indochina).

Protaetia (Miksicia) Özdikmen & Turgut: Jákl, 2018: 294 (Cetoniidae of Lesser Sundas).

Type species *Cetonia acuminata* Fabricius, 1775 (designated by Mikšič, 1963: 359).

***Protoaetia (Miksicus) acuminata* (Fabricius, 1775)**

(Figs. 1-5)

Cetonia acuminata Fabricius, 1775: 50 (original description), 1781: 58; Olivier, 1789: 41, pl. 8, fig. 42; Gmelin, 1790: 1573; Herbst, 1790: 259, pl. 32, fig. 8; Illiger, 1802: 160; Sturm, 1803: 77, pl. 83, fig. 7; Schonherr, 1817: 137; Gory & Percheron, 1833: 203, pl. 37, fig. 1; MacLeay, 1838: 47.

Protoaetia acuminata (Fabricius): Burmeister, 1842: 479 (monograph); Schaum, 1849: 277; Schoch, 1895: 115; Arrow, 1910: 155 (monograph); Schenkling, 1921: 251 (catalogue); Paulian, 1960: 73, fig. 319 (monograph), 67 (key); Mikšič, 1962: 33.

Protoaetia (Urbania) acuminata (Fabricius): Mikšič, 1963: 359.

Protoaetia (Urbania) acuminata (Fabricius): Mikšič, 1965: 91, 268.

Urbania acuminata (Fabricius): Mikšič, 1980: 371, 1982: 89, figs. A-B (monograph); Krajčák, 1998: 50 (catalogue); Sakai & Nagai, 1998: 291, pl. 96, fig. 1048-1 male, 1048-2 female (iconography); Legrand & Chew Kea Foo, 2010: 36, figs. 86-87 (Cetoniidae of Sabah).

Miksicus acuminatus (Fabricius): Özdikmen & Turgut, 2009: 227 (replacement name).

Protoaetia (Miksicia) acuminata acuminata (Fabricius): Jákl, 2018: 294, figs. 178-185 (Cetoniidae of Lesser Sundas).

Protoaetia (Miksicus) acuminata acuminata (Fabricius): Jákl, 2020: 23, figs. 12a-12m (Protoaetia of Indochina).

Cetonia daldorffi Schonherr, 1817: 138 (original description).

Protoaetia daldorffi (Schonherr): Burmeister, 1842: 480 (= *C. acuminata* Fabricius).

Cetonia marmorata Fabricius, 1801: 154 (original description).

Protoaetia marmorata (Fabricius): Burmeister, 1842: 480 (= *C. acuminata* Fabricius); Schaum, 1849: 277 (= *C. acuminata* Fabricius).

Cetonia marmorea Weber, 1801: 69 (original description).

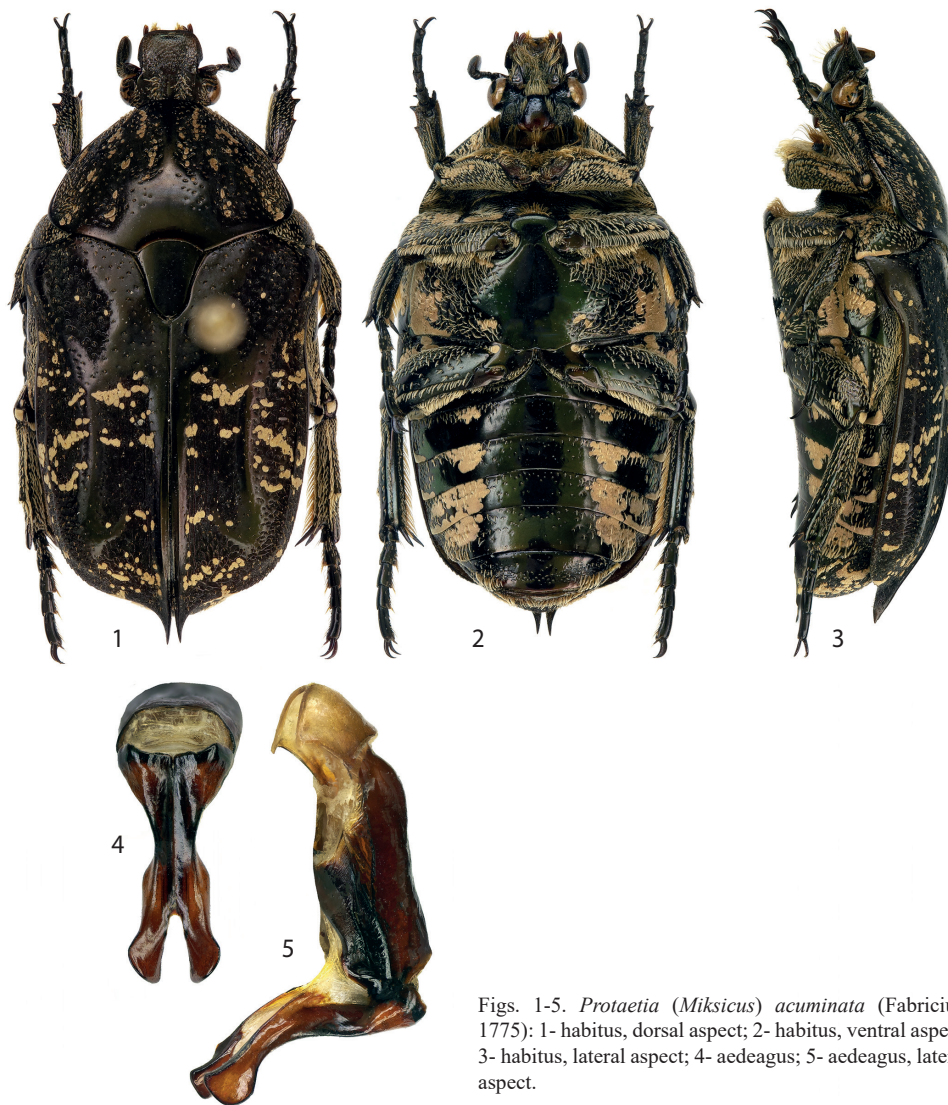
Protoaetia marmorea (Weber): Burmeister, 1842: 479; Schaum, 1844: 382, 1849: 277 (= *C. acuminata* Fabricius).

Type locality. „Habitat ad Cap. B. S.“.

Type material. Not traced.

Additional material examined: 5 ♂♂, 3 ♀♀ (SJCP) labelled: NW THAILAND, 25.IV.- / Chiang Mai prov., - 7.V. / BAN SAN PAKIA 1996 / Sv. Bílý leg., 1700 m; 1 ♀ (SJCP) labelled: Thai, Samui Isl. / 8.-20. 9. 1998 / J. Pecina; 1 ♂ (SJCP) labelled: Cambodia, Sihanoukville / h=5 m, 1.-13. I. 2009 / S. & M. Murzin leg; 1 ♂ (SJCP) labelled: Viet Nam / NHA-TRANK / leg Králík; 1 ♂ (SJCP) labelled: MALAYSIA / Cameron Highlands / V. 2010 / local collector leg; 1 ♂, 2 ♀♀ (SJCP) labelled: MALAYSIA, 6.-10.2. 1999 / Kalimantan, Kota Kinabalu / lgt Mráček; 25 ♂♂, 15 ♀♀ (SJCP) labelled: I.-W. Sumatra 600 m / Payakumbuh 6.-10.1. / Harau vill. env. / St. Jákl lgt, 1991; 2 ♂♂, 2 ♀♀ (SJCP) labelled: Indonesia, S. Sumatra / MT. DEMPO / IV. 2006 / local collector lgt; 1 ♂, 1 ♀ (SJCP) labelled: East Sumatra / BANGKLINANG env. / 4. 1999, loc. col.; 5 ♂♂, 2 ♀♀ (SJCP) labelled: WEST SUMATRA / Annai Valley-Lapai vill. / 600-700 m, 1999, 5.-6. / native collectors lgt; 7 ♂♂, 4 ♀♀ (SJCP) labelled: INDONESIA, XI. 2011 / W. Kalimantan, Pontianak / reg., MT. AMBAWANG / local collector leg; 10 ♂♂, 10 ♀♀ (SJCP) labelled: INDONESIA, SW Kalimantan / MT. BAWANG, 1000-1500 m / Singkawang reg., Madi v. env. / IV. 2019, local collector leg; 18 ♀♀ (SJCP) labelled: INDONESIA, N Sumatra / NIAS I. / III. 1993 / local collector leg; 1 ♂, 1 ♀ (SJCP) labelled: Indonesia, S Sumatra / BELITUNG ISL. / MT. TAJAM, 50-500 m / 5. 2005, local collector lgt; 1 ♂, 2 ♀♀ (SJCP) labelled: INDONESIA, C BALI I. / 400-800 m, I. 2018 / 10 km N of Negara / local collector leg.

Distribution. Northeastern India: West Bengal, Assam; Myanmar; Thailand; Laos; Vietnam; Cambodia, Malaysia; Singapore; Indonesia: Sumatra, Nias, Banka, Belitung, Kalimantan, Krakatau, Java, Bali Islands (**new island record**).



Figs. 1-5. *Prottaetia (Miksicus) acuminata* (Fabricius, 1775): 1- habitus, dorsal aspect; 2- habitus, ventral aspect; 3- habitus, lateral aspect; 4- aedeagus; 5- aedeagus, lateral aspect.

***Prottaetia (Miksicus) baveanica* (Mikšič, 1965) stat. nov.**
(Figs. 6-10)

Prottaetia (Urbania) acuminata baveanica Mikšič, 1965: 94 (original description).

Urbania acuminata baveanica (Mikšič): Mikšič, 1982: 87 (key, 92 monograph); Sakai & Nagai, 1998: 291, fig. 1048-3 male, 1048-4 female (iconography); Krajčič, 1998: 50 (catalogue).

Miksicus acuminatus baveanicus (Mikšič): Özdikmen & Turgut, 2009: 228 (nom. nov., comb. nov.).

Type locality. Insel Bawean (nordlich von Java) (= Bawean Island, north of Java).

Type material. Holotype ♂ and Allotype ♀ (ZMHB). Paratypes 10 ♂♂, 8 ♀♀ (ZMHB, RMNH, CNHM).

Additional material examined: 8 ♂♂, 4 ♀♀ (SJCP) labelled: Indonesia, BAWEAN ISL. / N of Madura Isl. / 11. 2005. local collectors lgt.

Redescription of male. Black, with sparse white ornament. Body size 15.5-18.0 mm (excluding pygidium).

Head. Black with mild lustre. Punctuation of frons semicircularly shaped and rather dense, punctures in clypeus also dense, but more or less simple. Lateral declivities clearly visible. Apex of clypeus straight and bordered. Antennae brownish, antennal club shorter than stalk. Clypeus with cover of white setation.

Pronotum. Black to dark brown, broad sides with few, tiny, whitish maculae. Punctuation in sides with dense, circularly shaped punctures bearing white setae. Punctuation of pronotal rest much sparser. Inner line and large part of base immaculate and impunctate. Glabrous inner line and part of base shining, rest of pronotum matte, with cover of tomentum. Lateral border developed throughout total length.

Scutellum. Black, impunctate and immaculate. Apex broadly rounded.

Elytra. Black with numerous tiny, white maculae distributed mainly in posterior half. Sutural ridge, elytral ribs, subscutellar area, humeral and apical calli impunctate, immaculate, without cover of tomentum, moderately shining. Rest of elytra matte, with cover of blackish tomentum. Each elytron with numerous, more or less circularly shaped tiny, whitish maculae, present mainly in posterior half. Disc of elytron with 5-6 striolae lines. Punctuation of lateral sides and apex rather dense, horse-shoe shaped. Posterolateral angles striolated. Sides and apex with short and rather sparse setation.

Pygidium. Black, with very dense and rather deep striolation. Anterolateral sides with large macula or with numerous tiny maculae. Setation short, yellowish, moderately dense.

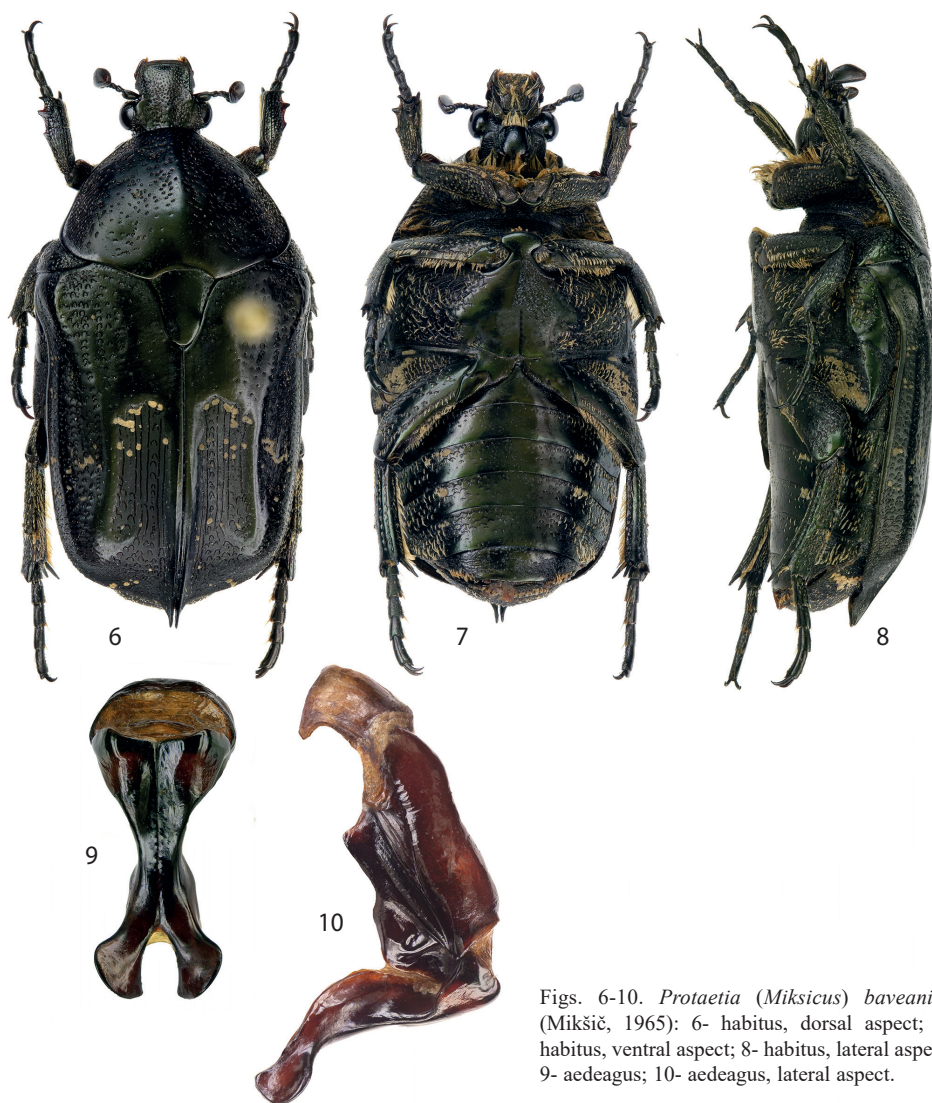
Ventrum. Black, usually with metallic green tinge. Abdominal segments 3rd-5th with ochre to beige macula or maculae placed laterally. Abdominal sides setose. Abdominal impression not developed, but constriction of abdomen clearly visible. Abdominal punctuation horse-shoe shaped in sides, in disc sparser with more simply developed punctures, anal ventrite striolated. Metasternum with cover of beige ornament in sides, rest immaculate. Metasternal sides striolated and shortly setose, metasternal plate impunctate, shining. Mesometasternal process wider than long, in apex very obtusely rounded. Prosternum and mentum striolated and covered with rather dense setation.

Legs. Femora, tibiae and tarsi black, setose. Protibia with three equidistant teeth. Meso- and metatibia carinate, in inner sides with brush of whitish setation.

Genitalia. (Figs. 9-10).

Variability. Except of differences in size, pattern of elytral and pronotal maculation different in every specimen, but generally maculation always rather sparse.

Sexual dimorphism. Size of females 16.0-18.0 mm. Elytral maculation more expressed than in males. Punctuation of head and especially pronotum deeper and denser than in males. Protibia tridentate, but shorter and wider. Abdomen arched. Antennae shorter.



Figs. 6-10. *Prottaetia (Miksicus) baveanica* (Mikšič, 1965): 6- habitus, dorsal aspect; 7- habitus, ventral aspect; 8- habitus, lateral aspect; 9- aedeagus; 10- aedeagus, lateral aspect.

Differential diagnosis. Comparing with *Prottaetia (Miksicus) acuminata* Fabricius, 1775 species from Bawean Island 1-3 mm larger and its coloration is black with very sparse white ornament, especially in elytra. In *P. acuminata* Fabricius is whitish maculation of elytra much more abundant, body size distinctly smaller and coloration bronze to olive or dark brownish. Teeth of protibia nearly equidistant in species from Bawean Island, but not equidistant in *P. acuminata* Fabricius, 1775. Body opaque in species from Bawean Island, but shining in *P. acuminata* Fabricius, 1775. Anal ventrite with striolation in species from

Bawean Island but with punctures in *P. acuminata* Fabricius. Apical fork of aedeagus nearly parallel running in *P. acuminata* Fabricius, but open to sides in species from Bawean Island.

Distribution. Indonesia: Bawean Island.

Note. For reasons already given in differential diagnosis population from Bawean Island can't be considered as a subspecies of *P. acuminata* Fabricius, 1775 and it is here treated as a valid species occurring in Bawean Island (Indonesia).

***Protaetia (Miksicus) freudei* Mikšič, 1962 stat. nov.**

(Figs. 11-15)

Protaetia freudei Mikšič, 1962: 30, figs. 27-28 (original description).

Protaetia (Urbania) acuminata freudei Mikšič: Mikšič, 1965: 269, 136 (key).

Urbania acuminata freudei (Mikšič): Mikšič, 1982: 92, figs. 16C-D (monograph, aedeagus), 88 (key); Krajčik, 1998: 50 (catalogue).

Miksicus acuminatus freudei (Mikšič): Özdişmen & Turgut, 2009: 228 (nom. nov., comb. nov.).

Type locality. „Andamanen“ (= Andaman Islands, India).

Type material. Holotype ♂ and Allotype ♀ (ZSMC).

Additional material examined: 1 ♂ (SJCP) labelled: Andamans / (Roepstorff) // Urbania / fraterna / Mikšič / J. Ph. Legrand det. VIII. 2008 // Urbania / acuminata / freudei Mikšič / St. Jákł det. 2010.

Redescription of male. Body size 19.1 mm. Black to dark brown with rich beige dorsal and ventral ornament.

Head. Black, frons with few beige maculae and whitish setation, clypeus immaculate and glabrous. Clypeus with purpureous lustre. Punctuation rather dense, punctures in frons larger and deeper. Apex of clypeus straight, bordered. Antennae brownish to black, length of antennal club and stalk nearly same.

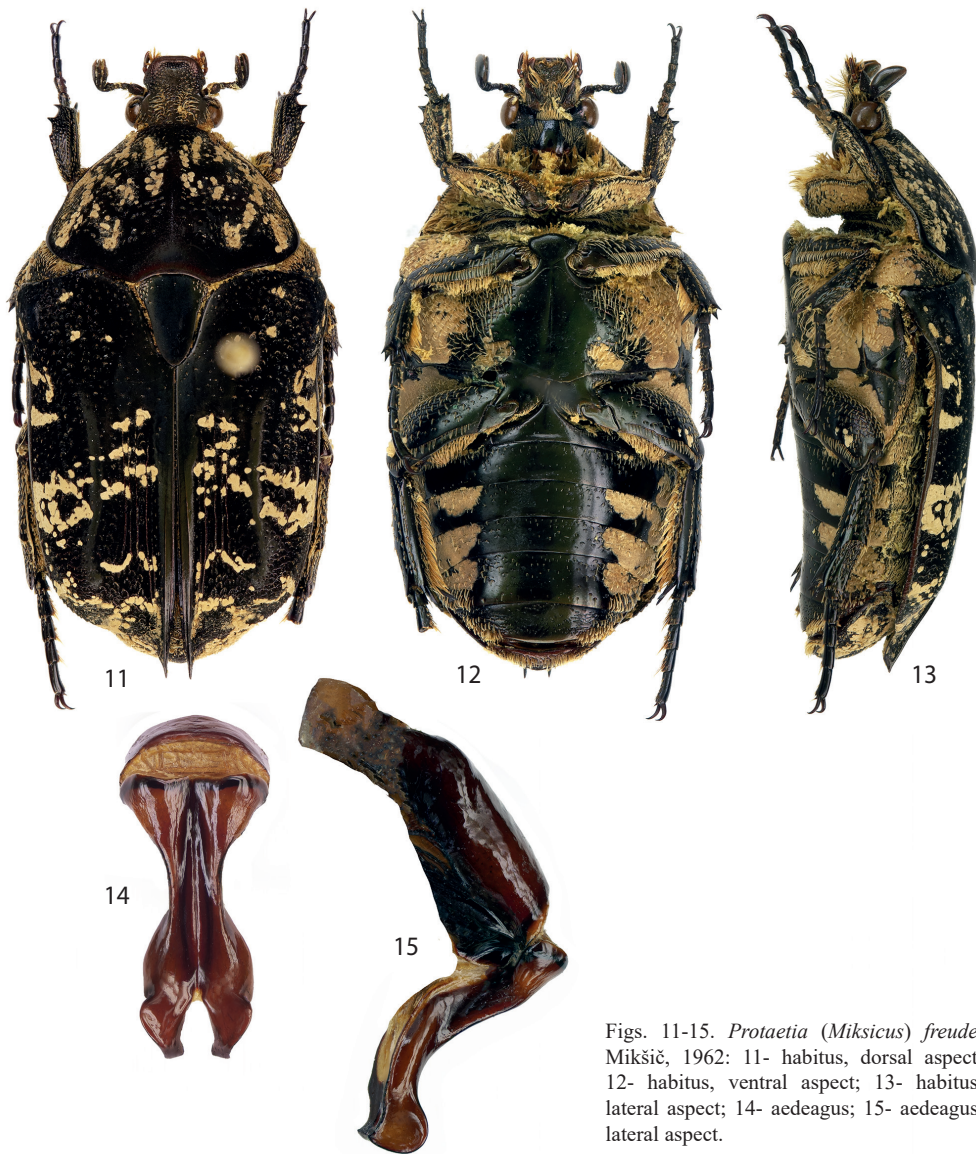
Pronotum. Black to dark brown, completely covered with tomentum, opaque. Excepting pronotal base and part of disc with abundant, beige ornament. Punctuation sparse, sides striolated. Lateral sides with border.

Scutellum. Anterolateral margins with setose punctures, rest impunctate. Apex sharply rounded.

Elytra. Dark brown to black, excepting sutural ridge and lateral ribs, completely covered with tomentum. Both sides with rich beige ornament, in apical half more abundant. Punctuation more or less horse- shoe shaped, posterolateral margins and apex striolated. Disc of each elytron with four longitudinally running striolae lines. Humeral and apical calli obtuse. Sutural ridge elevated in apical fourth, its termination very sharp and long.

Pygidium. Black with dense striolation. Except of disc with dense beige to brownish ornament.

Ventrum. Black, sides of abdomen, metasternum and prosternum with broad, beige ornament. Abdominal impression absent. Punctuation in abdomen more or less simple and



Figs. 11-15. *Protactia (Miksicus) freudei* Mikšič, 1962: 11- habitus, dorsal aspect; 12- habitus, ventral aspect; 13- habitus, lateral aspect; 14- aedeagus; 15- aedeagus, lateral aspect.

rather sparse, metasternal plate impunctate. Mesometasternal process simply punctured, same wide as long, its apex rounded. Sides of abdomen, broad sides of metasternum and nearly whole prosternum with cover of moderately long, white setation.

Legs. Femora, tibiae and tarsi black, setose, moderately long. Ventral side of profemora with cover of beige to ochre ornament. Protibia tridentate, teeth nearly equidistant. Meso- and metatibia carinate, in inner sides with brush of yellowish setation.

Genitalia. (Figs. 14-15).

Sexual dimorphism and variability. Redescription of this species is based on single available male.

Differential diagnosis. *Protaetia (Miksicus) freudei* Mikšič, 1962 differs clearly from *Protaetia (Miksicus) acuminata* Fabricius, 1775 in several characters. I. Size distinctly larger, 19 mm, but 15-18mm in *P. acuminata* Fabricius. II. Whole pronotum and elytra with cover of tomentum, but only entirely covered with tomentum in *P. acuminata* Fabricius. II. Nearly whole pronotum and both sides of elytra with rich beige ornament, but with distinctly sparser ornament in its congener. III. Teeth of protibia nearly equidistant, but not equidistant in *P. acuminata* Fabricius. IV. Ventrums with rich cover of ornament in abdominal sides, broad sides of metasternum and nearly whole prosternum, but with much sparser ornament in its congener. V. Scutellum with setose punctures in anterolateral margins, but with completely impunctate scutellum in *P. acuminata* Fabricius. VI. Mesometasternal apex same long as wide, but wider than long in *P. acuminata* Fabricius. VII. Male parameres differently structured, especially in shape of apical fork (Figs. 14-15).

Distribution. India: Andaman and Nicobar Islands.

Note. Allotype female comes from Nicobar Islands. In author opinion it might belong to completely different species as it is in other groups of insects.

***Protaetia (Miksicus) oceanica* sp. nov.**
(Figs. 16-20)

Type locality. Indonesia, Bengkulu Province, Enggano Island.

Type material. Holotype (♂) (SJCP) labelled: Indonesia, Bengkulu Province / ENGGANO ISL. / 0-100 m / cca 120 km of Sumatra / 4. 2005, local collectors lgt. Paratypes: (No. 1 ♂, No. 2 ♀ (SJCP) labelled: same as holotype; (No. 3 ♀) (SJCP) labelled: Indonesia / Enggano Is. / 2. 1994 / native collectors.

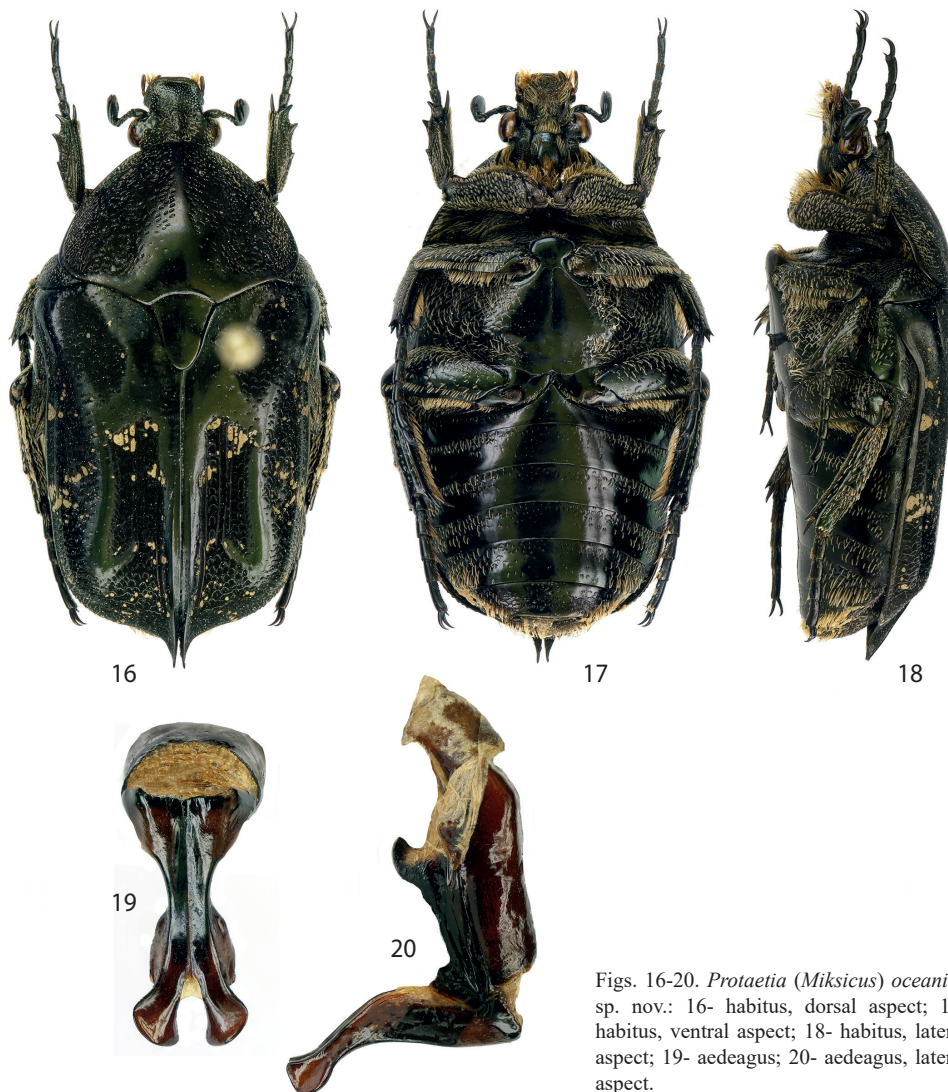
Description of holotype. Black, opaque, dorsum with considerably reduced ochre to beige ornament, ventrum immaculate. Body size 17.2 mm (excluding pygidium).

Head. Black, immaculate, frons with white setation, clypeus with mild reflection. Punctuation simple, punctures in frons larger, but sparser. Part of frons with blackish tomentum. Clypeal apex bordered, straight. Antennae black, antennal club shorter than stalk.

Pronotum. Middle line, base and posterior part of pronotal disc glabrous, mildly reflected and impunctate, rest of pronotum with cover of tomentum, opaque. Whitish ornament very reduced, with few minute maculae placed between disc and lateral margins. Sides with moderately dense horse-shoe shaped punctures, some with whitish setae, especially beside pronotal margins. Lateral sides with low border.

Scutellum. Black, opaque, impunctate and immaculate. Scutellar apex rounded.

Elytra. Black with reduced ochre to beige ornament in both elytral halves. Subscutellar area, sutural ridge, lateral ribs and calli impunctate, immaculate, glabrous and mildly



Figs. 16-20. *Prototaetia (Miksicus) oceanica* sp. nov.: 16- habitus, dorsal aspect; 17- habitus, ventral aspect; 18- habitus, lateral aspect; 19- aedeagus; 20- aedeagus, lateral aspect.

reflected, rest of elytra with cover of blackish tomentum. Tiny, irregularly shaped, beige to ochre maculae distributed in both elytral halves. Disc of elytron with five differently long striolae lines. Punctures large, mostly horse-shoe shaped, posterolateral margins and part of apex striolated. Humeral and apical calli very obtuse. Sutural ridge elevated in apical third, its protrusion over elytral apex long and sharp.

Pygidium. Black, opaque, with dense striolation. Ornament absent. Pygidial apex and parts of sides with short yellowish setation.

Ventrum. Black, white ornament completely missing. Abdomen and metasternum moderately shining. Abdomen with setiferous, fine, horse shoe-shaped punctation present mainly in sides. Metasternal sides striolated and covered with moderately long and dense white setae. Metasternal plate impunctate, shining. Mesometasternal process wider than long, its apex obtusely rounded. Prosternum and mentum with dense striolation and cover of white setation. Mesepimeron with setiferous horse-shoe shaped punctures.

Legs. Legs completely black, femora with striolation and white setae. Protibia tridentate, teeth nearly equidistant. Meso- and metatibia with obtuse carina in posterior half and rather dense setiferous punctures.

Genitalia. (Figs. 19-20).

Variability. Second available male smaller, 16.2 mm. In other aspects same as holotype (excepting slightly different pattern of elytral and pronotal ornament).

Sexual dimorphism. Size of females 17.1 and 17.2 mm. Elytral ornament slightly more developed than in males. Pronotal and elytral punctation deeper and denser. Abdomen more arched. Protibia wider and shorter.

Differential diagnosis. Resembling *Protaetia (Miksicus) baveanica* Mikšič, 1965. Also completely black with reduced pronotal and elytral ornament, but in new species ornament of ventral side completely absent (present in abdomen and metasternum of *P. baveanica* Mikšič). Size of new species slightly smaller. Mesometasternal process more circularly shaped in *P. baveanica* Mikšič. Although mislabelled females can be hard to separate, structure of male aedeagus of newly described species is of diagnostic importance (Figs. 19-20).

Etymology. Refers to position of Enggano Island, laying rather far in Indian Ocean.

Distribution. Indonesia: Enggano Island.

***Protaetia (Miksicus) austrosundana* sp. nov.**
(Figs. 21-25)

Type locality. Indonesia, Lesser Sundas, Sumba Island, Lewa District, south of Langgarilu village.

Type material. Holotype (♂) (SJCP) labelled: INDONESIA, Lesser Sundas / SUMBA I., Lewa District / S of Langgarilu vill., VI. / 2016, local collector leg. Paratypes: (Nos. 1-2 ♂♂, No. 3 ♀) (SJCP) labelled: same as holotype; (Nos. 4-6 ♂♂, No. 7 ♀) (SJCP) labelled: same as holotype, but I. 2016; (No. 8 ♂, No. 9 ♀) (SJCP) labelled: same as holotype, but VIII. 2016; (No. 10 ♀) (SJCP) labelled: same as holotype, but I. 2017; (No. 11 ♀) (SJCP) labelled: same as holotype, but XII. 2016; (No. 12 ♀) (SJCP) labelled: same as holotype, but XII. 2015; (Nos. 13-19 unsexed specimens) (SJCP) labelled: same as holotype, but I. 2016; (Nos. 20-21 unsexed specimens) (SJCP) labelled: same as holotype, but III. 2016; (Nos. 22-23 unsexed specimens) (SJCP) labelled: same as holotype, but VII. 2016; (Nos. 24-27 unsexed specimens) (SJCP) labelled: same as holotype, but VI. 2016. *Protaetia (Miksicus) austrosundana* sp.n. - PT Nos. 28-33 males and No. 34 female (SJCP) labelled: INDONESIA, Lesser/Sundas, SUMBAWA IS./ IV. 2007/ local collector leg.

Description of holotype. Bronze to brownish with rich dorsal and ventral ornament and strong purpureous lustre, especially in pronotum. Body size 16.5 mm (excluding pygidium).

Head. Bronze with strong purpureously green lustre. Punctuation deep and dense, punctures large, especially in frons. Clypeal apex very obtusely rounded and bordered. Setation and ornament missing. Antennae short, club shorter than antennal stalk. Coloration of antennal club and part of stalk blackish, scapus brownish.

Pronotum. Brownish to bronze, with abundant white ornament and strong purpureous to green reflection. Most of maculae running longitudinally. Simply developed punctures in pronotal disc with strong green lustre. Sides with striolation and few horse-shoe shaped punctures. Short, white setae present mainly beside pronotal margins.

Scutellum. Bronze with strong purpureous to metallic reflection, impunctate and immaculate. Apex rather sharp.

Ventrum. Bronze to brownish with strong metallic lustre. Sides of abdomen, metasternum and prosternum with rather broad whitish ornament. Sides of abdomen with large and rather dense horse- shoe shaped punctures and setation, disc of ventrites with minute and sparse horse-shoe shaped punctures. Metasternum striolated, excepting glabrous metasternal plate. Mesometasternal process oval shaped, wider than long, its apex rounded. White setation of metasternal sides and prosternum longer and denser than in abdomen. Meso- and metepimeron punctured, parts of margins with cover of ornament.

Legs. Bronze, femora and tibia with purpureous lustre. Femora with striolation, smaller parts with cover of ornament. Tibiae and tarsi bronze, moderately long. Protibia bidentate. Carina of meso- and metatibia very obtuse.

Genitalia. (Figs. 24-25).

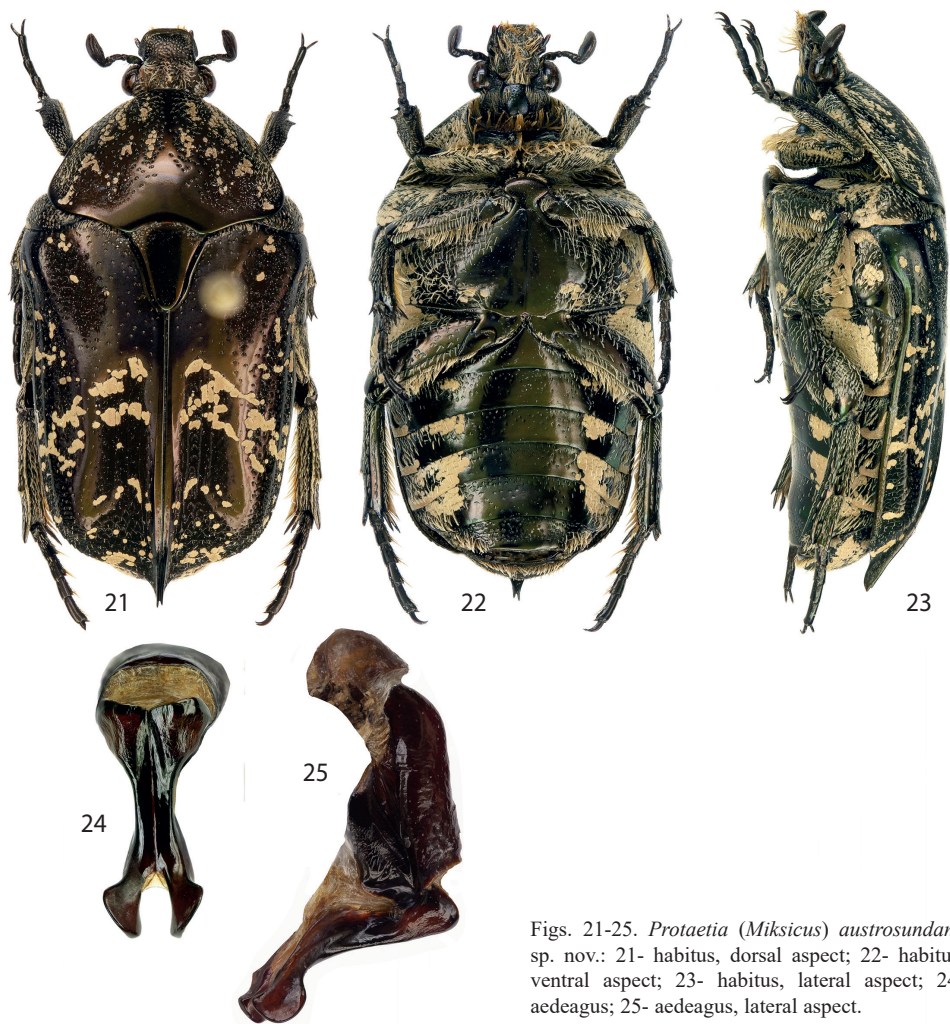
Variability. Size 15.2-17.5 mm (excluding pygidium). In other respects same or very similar.

Sexual dimorphism. Size of females 15.0-17.0 mm (excluding pygidium). Protibia bidentate, but in two females tridentate (posterior tooth very obtuse). Elytral and entirely also pronotal ornament more expressed. Punctuation and striolation more dense and deep. Legs shorter. Abdomen more arched.

Differential diagnosis. Newly described species differs from *P. acuminata* Fabricius, 1775 in lighter coloration of body with strong purpureous to green reflection, especially in head, pronotum and legs. Coloration of pronotal punctures in disc green, shining. Glabrous and impunctate pronotal middle line and part of pronotal disc very reduced. Protibia in males always bidentate. Punctuation of head much coarser. Male aedeagus differently shaped (Figs. 24-25).

Etymology. Refers to fact that Lesser Sunda Islands belong to transition zone between Oriental and Austro-Papuan regions.

Distribution. Indonesia: Lesser Sundas, Sumba and Sumbawa Islands.



Figs. 21-25. *Prottaetia (Miksicus) austrosundana* sp. nov.: 21- habitus, dorsal aspect; 22- habitus, ventral aspect; 23- habitus, lateral aspect; 24- aedeagus; 25- aedeagus, lateral aspect.

Note. Figures in Jákl 2020: 21, figs. 12a-12e and 2020: 22, figs. 12f-12h belong to this newly described species from Sumba and Sumbawa Islands (Indonesia).

***Prottaetia (Miksicus) kaorusakii* (Jákl, 2011) nom. nov.**

Miksicus sakii Jákl, 2011: 208, figs. 1-5 (original description).

Note. Krajčák (2011) declined genus *Miksicus* Özdikmen & Turgut, 2009 to subgenus of *Prottaetia* Burmeister, 1842. Due to this taxonomical step *Prottaetia (Miksicus) sakii* Jákl, 2011 fell into homonymy with *Prottaetia (Calopotosis) orientalis sakii* Kobayashi, 1994, therefore replacement name *Prottaetia (Miksicus) kaorusakii* nom. nov. is proposed here.

Protaetia (Lawangia) Schenkling, 1921 stat. nov.

Lawangia Schenkling, 1921: 264 (replacement name for *Hybothorax* Kraatz, 1898); Mikšič, 1979: 232, 1982: 14 (key), 126 (monograph); Legrand, 2018: 3 (= *Protaetia*).

Protaetia (Miksicoprotaetia) Legrand & Chew Kea Foo, 2010: 29 (original description); type species *Protaetia acutissima* Mohnike, 1871 (designated by Legrand & Chew Kea Foo, 2010: 29); Bezděk in Löbl & Löbl 2016: 378 (catalogue); Jákl, 2020: 24 (*Protaetia* of Indochina) **syn. nov.**

Type species *Hybothorax convexicollis* Kraatz, 1898 (= *Protaetia acutissima* Mohnike, 1871).

Note. Genus *Lawangia* Schenkling, 1921 is withdraw from synonymy with *Protaetia* Burmeister, 1842 and here considered as a subgenus of *Protaetia* Burmeister. *Protaetia (Miksicoprotaetia)* Legrand & Chew Kea Foo, 2010 is synonymised with *Protaetia (Lawangia)* Schenkling, 1921. All currently known species belonging to *Protaetia (Miksicoprotaetia)* Legrand & Chew Kea Foo, 2010 are transferred to subgenus *Lawangia* Schenkling, 1921 with following new combinations: *Protaetia (Lawangia) acutissima* Mohnike, 1871; *Protaetia (Lawangia) bruvieri* Legrand, 2018; *Protaetia (Lawangia) gillesi* Legrand, 2013 and *Protaetia (Lawangia) laotica* Legrand, 2013.

***Protaetia (Lawangia) binghami* Arrow, 1910 comb. nov.**

(Figs. 26-30)

Protaetia binghami Arrow, 1910: 156 (original description).

Urbania binghami (Arrow): Mikšič, 1982: 105 (monograph); Krajčák, 1998: 50 (catalogue).

Type locality. Tenasserim.

Type material. Holotype (♀) (BMNH).

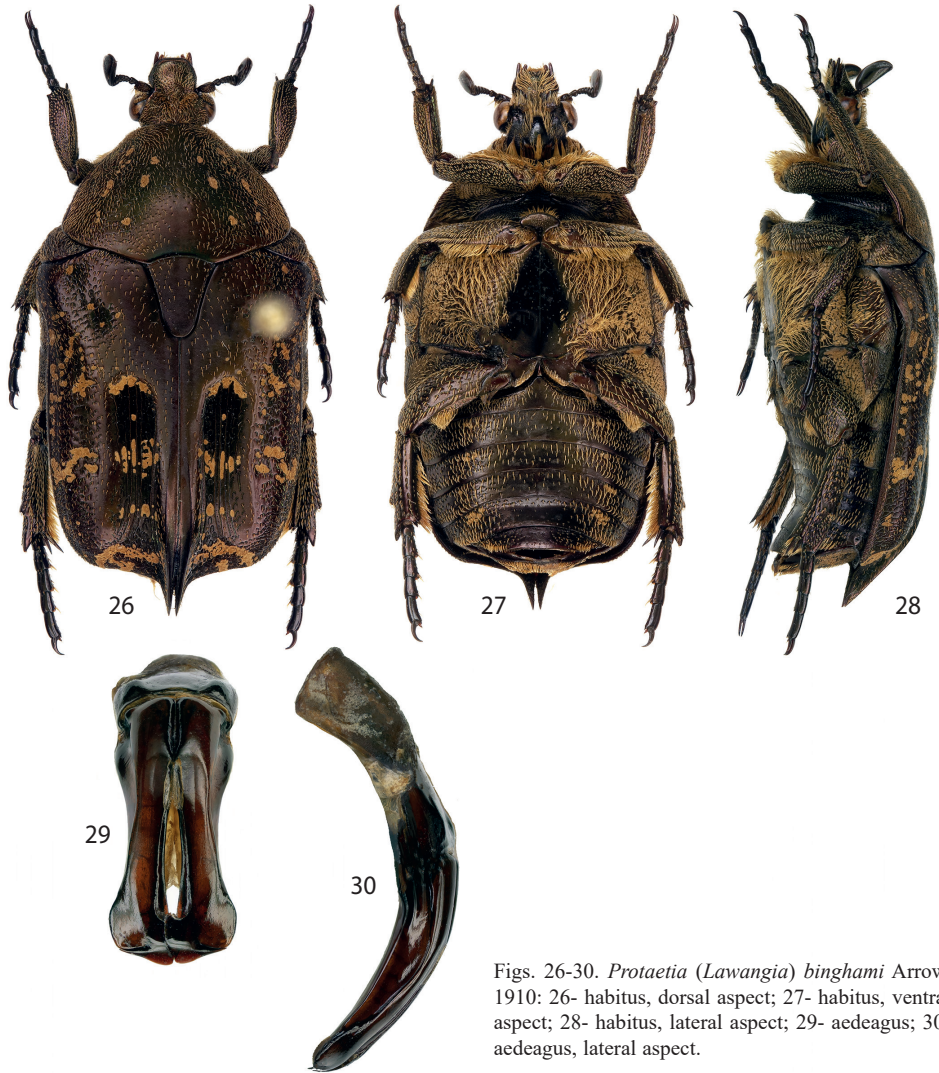
Additional material examined: 1 ♂ (SJCP) labelled: NW THAILAND, 1600 m / Mae Hong Son pr. / BAN HUI PO, 15.-19.V. / Sv. Bílý leg, 1996 // *Urbania / binghami* Arrow, 1910 / St. Jákl det. 2000.

Description of male. Body size 17.7 mm (excluding pygidium). Dark brown to black with olive tinge and medially developed coppery lustre.

Head. Black with green lustre in clypeus. Punctuation fine and simple but rather dense. Frons setose, setation in clypeus much sparser, but also present. Apex of clypeus and part of clypeal sides bordered. Clypeus circularly shaped without visible lateral declivities. Antennae black, scapus with yellowish dense setation, length of antennal club and stalk same.

Pronotum. Dark olive to dark brown. Excepting posterior half of middle line, with yellow setation. Setation in sides denser and longer than in rest of pronotum. Sides with two pairs of three light brown maculae running longitudinally. Most of rather dense punctures horse-shoe shaped, lateral margins with striolation. Sides with obtuse border which doesn't reach anterolateral angles.

Scutellum. Black with metallic lustre and few setose, simple punctures throughout total length.



Figs. 26-30. *Protactia (Lawangia) binghami* Arrow, 1910: 26- habitus, dorsal aspect; 27- habitus, ventral aspect; 28- habitus, lateral aspect; 29- aedeagus; 30- aedeagus, lateral aspect.

Elytra. Dark brown to nearly black, some parts with coppery lustre. Subscutellar area, lateral ribs and sutural ridge glabrous, rest of elytra opaque with cover of tomentum and ochre to brownish ornament. Elytral ornament rich in both elytral halves. Opaque parts with dense horse-shoe shaped punctation, apex and posterolateral margins striolated. Glabrous parts with simple and sparse punctation. Ochre setation rather dense, especially in sides. Disc of each elytron with 6 longitudinally running striolae lines. Humeral and apical calli very obtuse. Sutural ridge sharply elevated in apical half, its termination sharp and long.

Pygidium. Dark brown, striolated. Ochre ornament rich, especially in sides and apex. Setation moderately long and dense.

Ventrum. Abdomen and metasternum black, metasternal plate with coppery reflection. Abdominal impression present, but very shallow. Constriction of abdomen very sharp. Abdominal sides with few minute, ochre maculae. Setation of abdomen rather long and dense, especially in sides. Abdominal punctation dense, horse- shoe shaped. Sides of metasternum with dense and deep striolation and cover of long, white to yellowish setation. Mesometasternal process distinctly wider than long, its apex broadly rounded. Meso- and metepimeron striolated and setose. Setation and punctation of prosternum and mentum not that expressed as in metasternum.

Legs. Dark brown to black. Femora and tibiae striolated and setose. Protibia bidentate. Carina of meso- and metatibia obtuse. Inner sides of meso- and metatibia with dense, ochre setation.

Genitalia. Similar with other continental species (Figs. 29-30).

Sexual dimorphism. Holotype female very similar to male but abdomen arched and not sharply constricted. Termination of sutural ridge more robust and shorter. In other aspects same or very similar with second sex.

Distribution. Myanmar, Thailand.

Note. Study of holotype female from British Museum (London) revealed that species belongs to subgenus *Lawangia* Schenkling, 1921 not to subgenus *Miksicus* Özdikmen & Turgut, 2009. This species stays very close to *Protaetia (Lawangia) gillesi* Legrand, 2013 and *Protaetia (Lawangia) laotica* Legrand, 2013.

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