

Taxonomical notes on the genus *Anthaxia* Eschscholtz, 1829 (Coleoptera: Buprestidae) from Malaysia and Indonesia and a new record for Brunei

MIKULÁŠ PLACHETKA¹ & DANIEL RYDZI²

¹Letňanská 330/15, 190 00, Praha, Czech Republic

 nicolas.coleoptera@gmail.com;  <https://orcid.org/0009-0004-1246-1186>

²Luční 177, 267 01 Králov Dvůr, Czech Republic

 daniel@rydzi.cz;  <https://orcid.org/0009-0007-9940-6092>

Abstract

Two new species and one subspecies of the genus *Anthaxia* (*Haplanthaxia*) Reitter, 1911 are described, compared with the most similar species and illustrated here: *Anthaxia* (*Haplanthaxia*) *erjani* sp. nov. from Indonesia, *Anthaxia* (*Haplanthaxia*) *serramera* sp. nov. from Malaysia and *Anthaxia* (*Haplanthaxia*) *javanica continentalis* ssp. nov. from Malaysia, all belonging to the *Anthaxia* (*Haplanthaxia*) *aeneocuprea* species-group. *Anthaxia* (*Merocratus*) *priska* Bílý, 2019 is synonymized with *Anthaxia* (*Haplanthaxia*) *dayaka* Bílý, 1991. A lectotype is designated for *Anthaxia* (*Haplanthaxia*) *javanica* Obenberger, 1924 and new distributional records for this species are given.

Key words: Taxonomy, Oriental Region, Malaysia, Indonesia, Lectotype

Introduction

The *Anthaxia* (*Haplanthaxia*) *aeneocuprea* species-group was revised by Bílý (2015). Later, two additional Taiwanese species belonging to this group were described (Bílý 2020, Plachetka & Ong 2022). Recently, we were given an opportunity to study the collection of our colleague Martin Obořil, specialist in Anthaxiini, and the collection of our deceased colleague Svatopluk Bílý (deposited in NMPC). In these collections we found several new species and subspecies, and three of them are described in this paper. Because we are describing a new subspecies of *Anthaxia* (*H.*) *javanica* Obenberger, 1924, a lectotype of *A. javanica* Obenberger, 1924 had to be designated. During our study of the *Anthaxia* *aeneocuprea* species-group we realized that *Anthaxia* (*Merocratus*) *priska* Bílý, 2019 and *Anthaxia* (*Haplanthaxia*) *dayaka* Bílý, 1991, are conspecific, therefore *A. priska* Bílý, 2019 is hereby synonymized with *A. dayaka* Bílý, 1991.

Material and methods

A Canon 550D and Canon R5 digital cameras with attached Canon MP-E65mm f/2.8-5x macro lens were used to capture colour images. The body length was measured in the middle of the body following the elytral suture (the same for the pronotal and elytral length); width of the body means the maximum body width (usually the maximum span between lateral pronotal margins or span between outer margins of humeral callosities).

Double slash (//) is used for separation of data on different labels, square brackets ([]) for clarification of the text of the locality labels and single slash (/) for separation of lines of a text on a single label.

Used abbreviations of collections:

NMHUK	Natural History Museum, London, United Kingdom of Great Britain and N. Ireland
MOCO	Martin Obořil collection, Olbramovice, Czech Republic

MPCP	Mikuláš Plachetka collection, Prague, Czech Republic
NMPC	National Museum collection, Prague, Czech Republic

Taxonomy

Anthaxia (Haplanthaxia) javanica javanica Obenberger, 1924

(Figs. 3, 4, 6, 8, 11, 12, 31, 32)

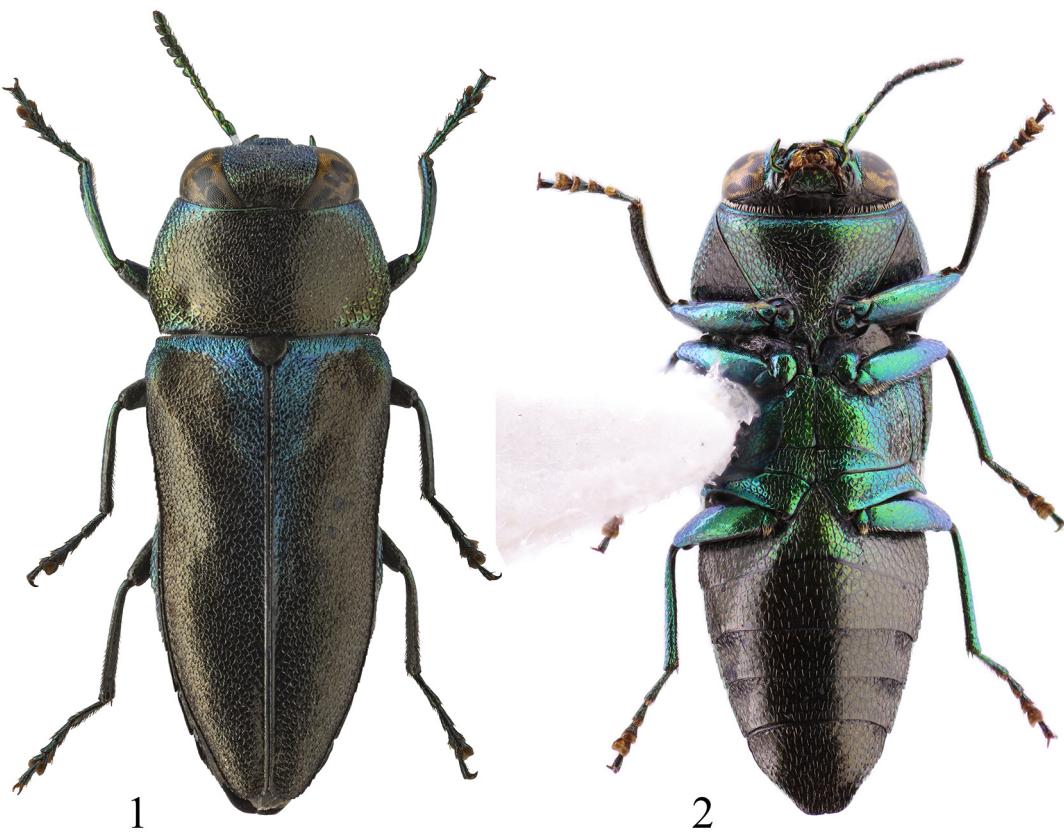
Anthaxia javanica Obenberger 1924: 106.

Type specimen. *Anthaxia (Haplanthaxia) javanica* Obenberger, 1924: Lectotype ♂ (NMPC): Java [handwritten] // TYPUS [red, black framed, printed] // Mus. Nat. Pragae / Inv. 22 533 [orange paper, all except number is printed] // Anthaxia / javanica m. / Type / Det. Dr. Obenberger [handwritten except “Det. Dr. Obenberger”] // ANTHAXIA / (Haplanthaxia) / ST [vertically] javanica / Obnb., 1924 / Sv. Bílý det., 2015 [all except “ST, javanica, Obnb., 1924” is printed]. New labels: LECTOTYPE / Anthaxia (Haplanthaxia) / javanica / Obenberger 1924 / des. M. Plachetka & D. Rydzi 2025 [printed on red paper] // Anthaxia (Haplanthaxia) / javanica javanica / Obenberger 1924 / det. M. Plachetka 2025.

Additional specimens examined. Indonesia: 1♂ (NMPC): I-W. Sumatra 600m / Payakumbuh 6.–10. i. / Harau vill. env. / St. Jákl lgt. 1991 // ex coll. S. Bílý / National Museum / Prague, Czech Republic // Anthaxia / (Haplanthaxia) / javanica / Obenberger, 1924 / Sv. Bílý det. 2015; 1♀ (NMPC) W Sumatra [handwritten by Svatopluk Bílý] // ex coll. S. Bílý / National Museum / Prague, Czech Republic // Anthaxia / (Haplanthaxia) / javanica / Obenberger, 1924 / Sv. Bílý det. 2015; 1♂ (NMPC): W Sumatra / Padang, Java / 1995, Jákl leg. [handwritten by Svatopluk Bílý] // ex coll. S. Bílý / National Museum / Prague, Czech Republic // Anthaxia / (Haplanthaxia) / javanica / Obenberger, 1924 / Sv. Bílý det. 2015; 6♂, 2♀ (NMPC, MPCP, MOCO): Indonesia, West Sumatra / MT. SANGGUL 1250–1400m alt / cca 35 km N of Payakumbuh / vi. 2010 Landai vill env / St. Jakl lgt // ex coll. S. Bílý / National Museum / Prague, Czech Republic // Anthaxia / (Haplanthaxia) / javanica / Obenberger, 1924 / Sv. Bílý det. 2015; 1♂ (NMPC): Indonesia, West Sumatra / HARAU VALLEY env. 500–800m / cca 20 km N of Payakumbuh / iv.–v. 2006 St. Jakl lgt. // ex coll. S. Bílý / National Museum / Prague, Czech Republic // Anthaxia / (Haplanthaxia) / javanica / Obenberger, 1924 / Sv. Bílý det. 2015; 1♀ (MOCO): Indonesia, W Sumatra / Harau Valley env. 500–800m / cca 20 km N of Pay / akumbuh 2006 St. Jakl; 1♀ (NMPC): Indonesia, W Sumatra / HARAU VALLEY env. iii. 2013 / cca 20 km N of Payakumbuh / 600–800m alt, St. Jakl lgt. // ex coll. S. Bílý / National Museum / Prague, Czech Republic // Anthaxia / (Haplanthaxia) / javanica / Obenberger, 1924 / Sv. Bílý det. 2015; 1♂ (NMPC): Indonesia, West Sumatra / Mt Sanguul, 1200m alt / cca 25 km N of Payakumbuh / iv. 2007 St. Jakl leg. // ex coll. S. Bílý / National Museum / Prague, Czech Republic; 1♂ (NMPC): Indonesia West / Sumatra Mt Sanguul / 1250m Landal env. / S. Jakl lgt; 2♀ (MPCP): Indonesia W Sumatra / Harrau valley env. 5.–20. iv. 2013 / cca 20 km N of Payakumbuh / 600–800 m alt. S. Jakl lgt. **Brunei:** 1♀ (NMHUK): 125W m. v. light / BRUNEI: Temburong / District, ridge NE / of Kuala Belalong, // approx. 300 m alt. / October 1992 / J H Martin coll. / B M 1992-172 // 1024 [pink label, printed] // Anthaxia / (Haplanthaxia) / javanica / Obenberger, 1924 / Sv. Bílý det. 2014. All specimens mentioned above bear new label: Anthaxia (Haplanthaxia) / javanica javanica / Obenberger 1924 / det. M. Plachetka 2023.

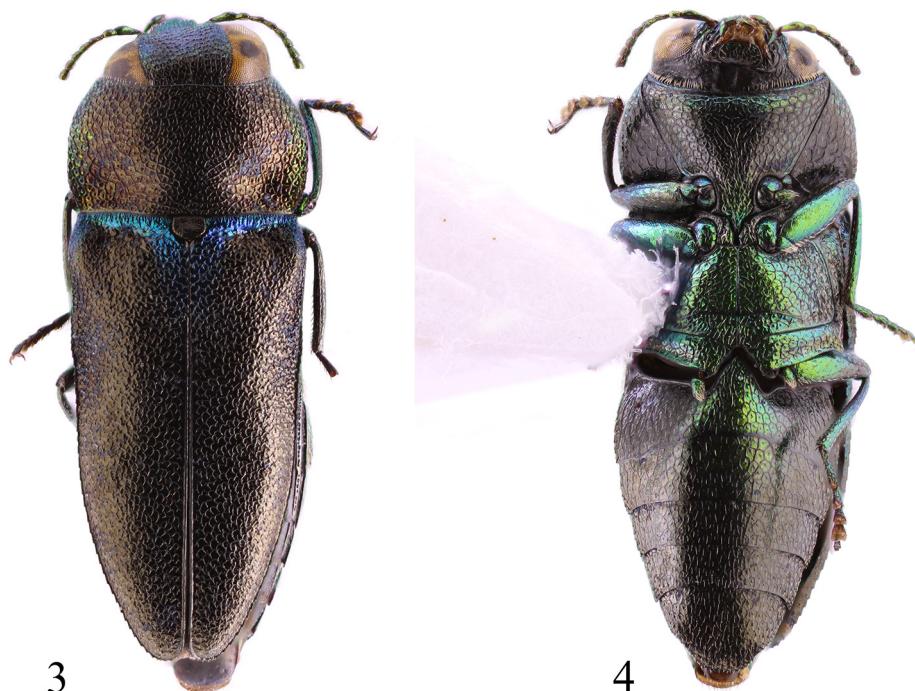
Unverified specimens. 1♀ (NMPC): Indonesia, West Sumatra / MT. SANGGUL 1250–1400m alt / cca 35 km N of Payakumbuh / vi. 2010 Landai vill env / St. Jakl lgt // ex coll. S. Bílý / National Museum / Prague, Czech Republic // Anthaxia / (Haplanthaxia) / javanica / Obenberger, 1924 / Sv. Bílý det. 2015; 1♀ (NMPC): Indonesia, West Sumatra / MT. SANGGUL 1200–1500m alt / cca 35 km N of Payakumbuh / ix. 2012, local collector leg // ex coll. S. Bílý / National Museum / Prague, Czech Republic, 1♀ (NMPC): Indonesia West / Sumatra Mt. Sanggul / 1250m Landai env. / S. Jákl leg. // ex coll. S. Bílý / National Museum / Prague, Czech Republic; 1♀ (NMPC): Indonesia, W Sumatra / Harau Valley env. iii. 2013 / cca 20 km N of Payakumbuh / 600–800 m alt. St. Jakl lgt // ex coll. S. Bílý / National Museum / Prague, Czech Republic // Anthaxia / (Haplanthaxia) / javanica / Obenberger, 1924 / Sv. Bílý det. 2015.

Remarks. Obenberger’s description does not state the number of syntypes, however, the only type specimen subsequently noted is a syntype from NMPC (Bílý 2015), labeled only as “typus” by Obenberger. We failed to find any other syntype, so the only known specimen is designated as lectotype by present designation (Figs. 6, 31, 32). Male and female specimens of *Anthaxia javanica javanica* are illustrated in Figs. 3, 4, 8, 11 and 12.



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FIGURES 1–4. 1, *Anthaxia (Haplanthaxia) javanica continentalis* ssp. nov., holotype, dorsal view; 2, *A. (H.) javanica continentalis* ssp. nov., holotype, ventral view; 3, *A. (H.) javanica javanica* Obenberger, 1924, male, dorsal view; 4, *A. (H.) javanica javanica* Obenberger, 1924, male, ventral view.



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FIGURES 5–8. 5, *Anthaxia (H.) javanica continentalis* ssp. nov., paratype, aedeagus; 6, *A. (H.) javanica javanica* Obenberger, 1924, lectotype, aedeagus; 7, *A. (H.) javanica continentalis* ssp. nov., holotype, parameres and median lobe; 8, *A. (H.) javanica javanica* Obenberger, 1924, parameres and median lobe.

Obenberger (1931) mentioned another specimen of *Anthaxia javanica* from Indonesia, Java, Mont Tjampea. Unfortunately, we failed to trace it.

The specimen from Brunei deposited in NMHUK is a female and despite the fact that the holotype of *Anthaxia (Haplanthaxia) billbarri* Bílý, 2014 was collected on the same day and at the same locality, this specimen does really represent *Anthaxia javanica javanica* Obenberger, 1924, and it is a new country record for Brunei. Although determined by Bílý in 2014, this record is not mentioned in his later revision of the *Anthaxia aeneocuprea* species-group (Bílý 2015).

Unfortunately, we failed to find a specimen from Bali, Indonesia mentioned by Bílý (2015), even though it should be deposited in NMPC, hence we are unable to confirm the presence of *A. javanica javanica* in Bali, although it possibly occurs there. Bílý (2015: 75) also includes Sarawak, Malaysia in the distribution for this species, but without any record of a specimen in the list of examined specimens on page 27. We failed to find any specimen from Borneo except the one from Brunei. Nevertheless, based on this record the presence of *Anthaxia javanica javanica* in Borneo is highly likely.

Within study material deposited in NMPC of *Anthaxia javanica* specimens we found four females from Mt. Sanggul and Harau Valley, Indonesia. Two of those females were determined by Bílý as *Anthaxia javanica*. However, after remounting and studying the ventral side of those specimens we could not confirm the correctness of this determination.

Anthaxia (Haplanthaxia) javanica continentalis ssp. nov.

(Figs. 1, 2, 5, 7, 9, 10)

Type locality: Malaysia, Pahang, Cameron Highlands, Tanah Rata

Type specimens. Holotype ♂ (NMPC): MALAYSIA W Pahang / Cameron Highlands, 2004 / Tanah Rata, 1500–1800m / P. Pacholátko lgt. 2.–26. iii // Anthaxia / (Haplanthaxia) // javanica Obnb. [handwritten] Sv. Bílý det. [printed] 2014 [handwritten] // cum typo / comparavit / Sv. Bílý 2014; Allotype ♀ (NMPC): Fraser's Hill [handwritten] // Malaya / 16. iv 1980 / H. F. Yui [handwritten except "Malaya" and "19"] // ex coll. S. Bílý / National Museum / Prague, Czech Republic // Anthaxia / (Haplanthaxia) / javanica/ Obenberger, 1924 / Sv. Bílý det. 2015; Paratypes: 2♂, 1♀ (MPCP, NMPC): same data as allotype; 3 ♀ (MOCO, MPCP): same data as holotype; 2 ♂ (MOCO, MPCP): Malaysia, Pahang, 2000 / Cameron Highlands / Tanah Rata, 1600m / Pacholátko P. leg. 11.–27. ii; 1♀ (MOCO): Malaysia–Pahang, alt. 1200m, / Cameron Highlands 3km SW of / Ringlet, N 04° 24' 26"E 101° 22' 38" / 9.–13. iii. 2013 M. Štrba leg.; 5♂ (MOCO, MPCP): 27.–31. iii. 2017 Malaysia / Tanah Rata / SE of town / T. Tichý; 1500m / Pahang [vertically, on right edge of label]; 1♂ (MOCO): 4.–6. iv. 2014 Malaysia / Tanah Rata / SE of town / T. Tichý, 1500m / Pahang [vertically, on right edge of label]; 1♀ (MOCO): MALAYSIA. Pahang 1500m / Cameron Highlands, Tanah / Rata. Robinson Waterfall env. / 4°27'52" N, 101°23'30" E / L. Dembický lgt. 7.–28. iv. 2013. Type specimens bear a red label with printed text: HOLOTYPE [ALLOTYPE, PARATYPE respectively] / Anthaxia / (Haplanthaxia) / javanica continentalis ssp. nov. / det M. Plachetka & D. Rydz 2025.

Description of holotype. Holotype male (Figs. 1, 2, 7). Head slightly retracted into prothorax, frons blue-green, with shallow, triangular depression in the centre. Vertex black, slightly depressed, as wide as eye. Structure of frons consists of polygonal cells with central grains which bear a short, white seta. Eyes large, reniform, slightly projecting beyond outline of head. Inner margin slightly S-shaped, narrower at vertex. Antennae obtusely serrate (without typically acute angle of apex of trapezoidal antennomeres), green to golden-green, rather short, extending to half of the length of lateral pronotal margins when laid alongside. Scape long, about 2.2 times as long as wide, claviform; pedicel oval, 1.9 times as long as wide; third and fourth antennomeres claviform, twice as long as wide; antennomeres 5–10 obtusely rounded, trapezoidal; terminal antennomere long, triangular. Antennae green, apex of terminal antennomere brown.

Pronotum convex, 1.9 times as wide as long, with wide, deep posterolateral depressions; lateral margins rounded, slightly serrate, slightly swollen before elytra. Maximum pronotal width at the third quarter. Anterior margin slightly bisinuate. Sculpture of pronotum homogenous, consisting of polygonal cells with central grains that bear a very short, white seta. Pronotum black with wide blue-green stripe along lateral margins, including posterolateral depressions and narrow stripe along anterior margin. Scutellum black, flat, cordiform, as long as wide, with few spots of blue-green tint, with small asymmetrical polygonal cells without central grains. Many cells wider than longer, some almost rectangular.



FIGURES 9–12. 9, *Anthaxia (H.) javanica continentalis* ssp. nov., allotype (dorsal view); 10, *Anthaxia (H.) javanica continentalis* ssp. nov., allotype (ventral view); 11, *A. (H.) javanica javanica* Obenberger, 1924, female (dorsal view); 12, *A. (H.) javanica javanica* Obenberger, 1924, female (ventral view).



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FIGURES 13–16. 13, *Anthaxia (H.) serramera* sp. nov., holotype, dorsal view; 14, *Anthaxia (H.) serramera* sp. nov., holotype, ventral view; 15, *Anthaxia (H.) serramera* sp. nov., allotype, dorsal view; 16, *Anthaxia (H.) serramera* sp. nov., allotype, ventral view.

Elytra 1.9 times as long as wide, with short, very sparse white setae, wedge-shaped, with apices very finely laterally serrate, lustrous black. Humeral callosities, transverse basal depression and long postscutellar triangle blue-green. Transverse basal depression deep, wide, extending from anterior margin of humeral callosities to scutellum. Elytron depressed along lateral margin, depression extending to half of elytral length, narrower towards anterior and posterior margins.

Ventral surface lustrous black-green. Surface consists of polygonal (mostly pentagonal) cells with central grains with long white setae; setae are longest in the centre of the body, shortening towards lateral margins. Prosternum black, with blue-green tinge; ventral side of pronotum black, with blue-green margins. Meso- and metasternum blue-green, only with a few black areas. Metacoxae blue-green, strongly curved, with distinct, obtusely rounded spine on posterolateral angle. Sternites lustrous black, first and second sternites with blue-green tinge, last sternite bisinuate with small notch. Legs black with strong blue-green tinge, adhesive pads and tarsal claws brown. Meso- and metatrochanters and meso- and metafemora with row of white setae on posterior margins. All tibiae smoothly serrate on inner margins; protibiae with pale setae on inner margins and with a small spine on outer margin near apex. Mesotibiae slightly serrate with darker, brown setae on inner margins. Metatibiae slightly serrate on inner margins with dark, brown setae on both margins. Aedeagus spindle-shaped (Fig. 5), well sclerotized; parameres not enlarged. Lateral margins near apex of parameres with several long, yellow setae. Median lobe spindle shaped, serrate at last third along lateral margins; tip 4 times longer than wide (tip is considered to be the part between the last tooth of serration and apex of median lobe).

Sexual dimorphism. The most distinct is the difference in the shape of the elytra (wedge-shaped in male, subparallel in female, while the last ventrite is depressed around a deeper notch). Another difference is in the colour of the frons (blue-green in male, black-green in female). In the female, the ventral side is black with only very weak dark green tinge and weak dark green or blue tinge on legs (Figs. 9, 10). In the male, the ventral side is lustrous black with a strong green tinge, legs almost blue-green in ventral view (Figs. 1, 2).

Variability. Greatest variability is in size, while variability to some extent is also visible in the shape of the pronotum. Some specimens have the pronotum widest at the middle, some at the second third. There is also variability in colouration; some specimens are more greenish, some more bluish.

Measurements. Length: 3.4–4.6 mm (holotype 4.2 mm), width: 1.2–1.8 mm (holotype 1.5 mm).

Differential diagnosis. From the nominotypical subspecies *A. javanica continentalis* can be distinguished by its narrower vertex: as wide as the eye in *A. j. continentalis* in comparison to 1.4 times as wide as the eye in *A. j. javanica*, and by the different shape of the last sternite in the male: bisinuate in *A. j. continentalis* (Figs. 1, 2), while obtusely rounded to straight in *A. j. javanica* (Figs. 3, 4). The shape of the aedeagus is also different: the parameres of the nominotypical subspecies are widened near the apex, and the median lobe is short, subparallel, the tip is only 2–2.5 times as long as wide (Figs. 6, 8), while in *A. j. continentalis* the parameres are not widened and the median lobe has the tip distinctly longer (4 times as long as wide and parallel-sided (Figs. 5, 7). The tip is considered to begin at the end of serration of median lobe.

In general, the appearance of *A. j. continentalis* looks more colourful and shinier. Females (Figs. 9, 10, 11, 12) can be distinguished by a deeper, narrower notch at the apex of last sternite in *A. j. continentalis*, compared to a more shallow but wider notch in *A. j. javanica*.

Bionomy. Unknown. Some specimens from Tanah Rata were collected on flowering trees.

Distribution. Malaysia: Pahang, Selangor.

Etymology. The name “continentalis” for this subspecies has been chosen to reflect the known distribution in the continental part of Malaysia.

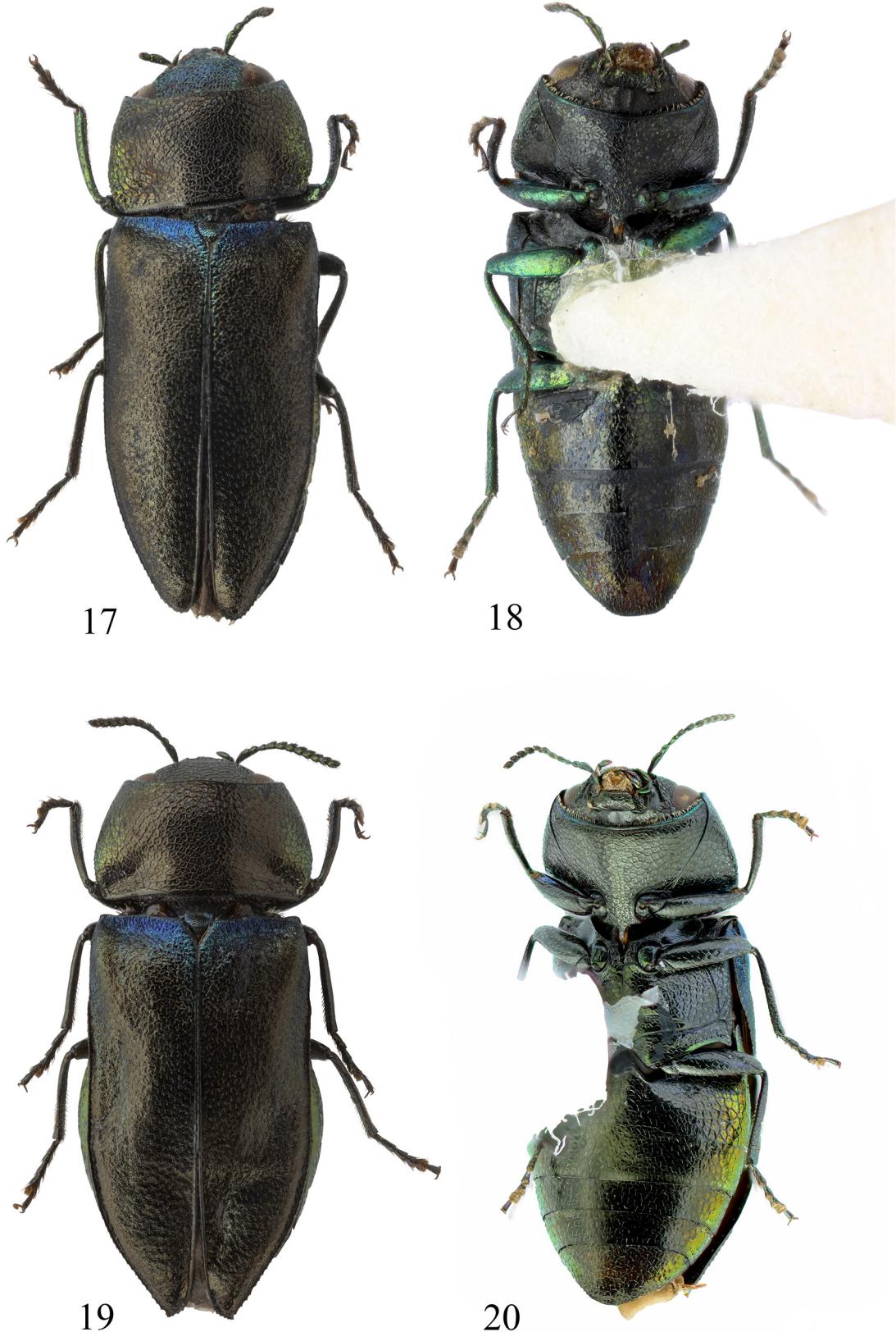
Anthaxia (Haplanthaxia) erjani sp. nov.

(Figs. 17, 18, 19, 20, 22)

Type locality: Indonesia, Mentawai Islands, Siberut.

Type specimens. Holotype: ♂ (NMPC): Indonesia Mentawai / isls. Siberut Bojakan / 100m i. 2005 Jákl leg; Allotype: ♀ (NMPC): Indonesia, Mentawai Islands / N. SIBERUT Isl. 150m / BOJAKAN vill. env. 5. 2004. Paratypes: 3♂ (NMPC, MPCP) same data as holotype, but written in different order on some of the labels; 1♂ (MPCP), 2 ♀ (NMPC, MPCP) Indonesia vi. 2018 / SW Kalimantan / Singkawang reg. Mt. / Bawang, Madi vill.

[local collector]. All specimens except the allotype bear a white label with printed text: ex coll. S. Bílý / National Museum / Prague, Czech Republic. Type specimens bear red label with printed text: HOLOTYPE [ALLOTYPE, PARATYPE respectively] / Anthaxia / (Haplanthaxia) / erjani sp. nov. / det M. Plachetka & D. Rydzi 2025.



FIGURES 17–20. 17, *Anthaxia (H.) erjani* sp. nov., holotype, dorsal view; 18, *Anthaxia (H.) erjani* sp. nov., holotype, ventral view; 19, *Anthaxia (H.) erjani* sp. nov., allotype, dorsal view; 20, *Anthaxia (H.) erjani* sp. nov., allotype, ventral view.

Description of holotype. Holotype male (Figs. 17, 18, 22). Head strongly retracted into prothorax, frons wide with shallow, postclypeal depression. Vertex retracted into prothorax. Frons green with strong blue tinge at the centre (vertex black in paratypes, not visible in holotype). Structure of frons consists of polygonal cells with central grains that bear a short, white seta. Eyes large, reniform, slightly projecting beyond outline of head; inner margin very slightly S-shaped, narrower at vertex. Antennae serrate, green, very short, not extending over half of the length of lateral pronotal margins when laid alongside. Scape long, about 3 times as long as wide, claviform; pedicel barrel-shaped, twice as long as wide; third antennomere claviform, 2.2 times as long as wide; fourth to sixth antennomeres triangular, as long as wide; antennomeres 7–10 trapezoidal with smooth, almost rounded angles; terminal antennomere rhomboid (slightly triangular); tip brown. Apex of triangular and trapezoidal antennomeres brown; entire antennomeres covered with dense, long white setae (antennal description based on a paratype from Mt. Bawang, as holotype antennae are incomplete).

Pronotum weakly convex, 1.8 times as wide as long with wide, deep posterolateral depressions; lateral margins irregularly rounded. Maximum pronotal width at posterior third. Maximum pronotal length at tips of lateral anterior margins. Anterior and posterior margins of pronotum bisinuate. Sculpture of pronotum homogenous, consisting of polygonal cells with central grains, most of which bear a short, white seta. Pronotum black with green stripes along lateral margins. Scutellum flat, cordiform, 0.8 times as long as wide, with small, asymmetrical, polygonal cells. Colour blue, only a small part of scutellum black.

Elytra 1.8 times as long as wide, almost parallel-sided at anterior two thirds, black with bronze or golden-green tinge (depending on angle of light). Transverse basal depression and postscutellar stripe blue. Posterior third tapering; apices narrowly, separately rounded, very finely laterally serrate. Transverse basal depression deep, extending from inner margin of humeral callosities to scutellum; elytral surface blue within depression. Elytron depressed along lateral margin, depression reaching first third of elytron, widest at anterior third, narrower towards anterior and posterior margins. Shallow depression present along suture.

Ventral surface lustrous, black with dark green tinge. Whole surface consists of irregular, sometimes blending, polygonal cells, mostly with central grains, most of which bear a white seta. Prosternum black with green anterior margin; ventral side of pronotum black with green tinge on lateral margins. Meso- and metasternum black with green tinge. Last sternite obtusely rounded, without notch, with small, short denticulations on lateral margins near apex.

Legs thin, rather long, partly covered with long, white setae. Femora, tibiae and tarsi green, partly black with strong green tinge; adhesive pads and tarsal claws brown. All tibiae with microdenticulations, with short dark setae on inner margins.

Aedeagus (Fig. 22) well sclerotized, brown, spindle-shaped, slightly swollen at the middle; parameres serrate near apex, with several long setae and with depression on inner margins. Median lobe broad, microsculptured, with serrate lateral margins, tapering from inner paramere depressions towards apex. Apex obtusely pointed, without serration.

Sexual dimorphism. The most distinct is the difference in the shape of the elytra (wedge-shaped in male, subparallel in female), colour of frons (green in male, black-green in female) and distinct iridescent red or green stripe (depending on angle of light) on lateral margins of sternites in female. In female apex of each elytron slightly pointed; this character is quite rare within the genus *Anthaxia* (Figs. 19, 20).

Measurements. Length: 3.3–4.2 mm (holotype 3.6 mm), width: 1.2–1.6 mm (holotype 1.5 mm).

Differential diagnosis. The most similar species is *Anthaxia (Haplanthaxia) javanica* Obenberger, 1924 (Figs. 3, 4, 6, 8, 11, 12, 31, 32) from Indonesia and Brunei. *Anthaxia (Haplanthaxia) erjani* sp. nov. can be distinguished by its wider body, colour of scutellum (in both sexes scutellum is black in *A. javanica*, while at least partly blue in *A. erjani* sp. nov.) and by the different aedeagus, which is similar in shape, but parameres are serrate near apex in *A. erjani* sp. nov. (Fig. 22) in comparison to non-serrate parameres in *A. javanica* (Figs. 7, 8). Females can be distinguished by the different shape of the last sternite which is 1.6 times as wide as long in *A. javanica*, while it is 2.2 times as wide as long in *A. erjani*. Furthermore, the last sternite of *A. javanica* is deeply depressed around a very distinct apical notch, while there is only an indistinct depression near the apex of last sternite with a very small apical notch in *A. erjani*. Lastly, the lateral margins of abdominal sternites are shiny, with a colourful stripe in *A. erjani*, while the sternites are black in *A. javanica*.

Bionomy. Unknown. Specimens from Siberut were beaten from an unknown flowering tree (S. Jákl pers. comm.).

Distribution. Indonesia, Mentawai Islands, Siberut, and Kalimantan, Mt. Bawang. This species could probably be found in Sumatra as well; however, we failed to discover any other specimen in available collections.

Etymology. Because we have to synonymize *A. priska* Bílý, 2019, which was named after the wife of our colleague, friend and expert in Cetoniidae, Stanislav Jákl, we decided to name this new taxon after her, Priska Erjani Jákl, using her second name as a noun in apposition.

***Anthaxia (Haplanthaxia) serramera* sp. nov.**

(Figs. 13, 14, 15, 16, 21)

Type locality. Malaysia, Taman Negara, Kuala Tahan.

Type specimens. Holotype: ♂ (MPCP): 26. ii.–1. iii. 2016 Malaysia / Taman Negara / Kuala Tahan / T. Tichý; 60–750m / Pahang [vertically, on right edge of label]. Allotype: ♀ (MPCP) same data. Paratypes: 1♂ (MOCO) same data, 1♂ (MOCO) MALAYSIA—Perak / Banjaran Bintang / Bukit Berapit (Talping) / 11.–12. iii. 1997 / Ivo Jeniš leg. Type specimens bear red label with printed text: HOLOTYPE [ALLOTYPE, PARATYPE respectively] / *Anthaxia* / (*Haplanthaxia*) / *serramera* sp. nov. / det M. Plachetka & D. Rydzi 2025.

Description of holotype. Holotype male (Figs. 13, 14, 21). Head slightly retracted into prothorax, frons with shallow, circular depression in the centre. Vertex deeply depressed, with longitudinal groove in the centre, very narrow, only 0.7 times as wide as eye. Structure of frons consists of polygonal cells with central grains which bear short, white setae. Eyes large, reniform, very weakly projecting beyond outline of head; inner margin slightly S-shaped, narrower at vertex. Antennae obtusely serrate, green or black-bronze with green tinge, rather short, extending to half of the length of lateral pronotal margins when laid alongside. Scape long, about 2.5 times as long as wide, claviform; pedicel oval, 1.3 times as long as wide; third antennomere claviform, twice as long as wide; antennomeres 4–10 very obtusely trapezoidal; terminal antennomere rounded, rhomboid.

Pronotum weakly convex, 2 times as wide as long, with wide, deep posterolateral depressions. Lateral margins rounded, slightly serrate near posterolateral angles. Maximum pronotal width at the middle. Anterior and posterior margins very slightly bisinuate. Sculpture of pronotum homogenous, consisting of polygonal cells with central grains that bear short, white setae. Pronotum black with blue-green lateral margins and small area of deep depressions. Scutellum black with blue-green tinge, flat, cordiform, as long as wide, with asymmetrical, small polygonal cells without central grains. Elytra 1.9 times as long as wide, asetose, wedge-shaped, very finely serrate laterally, black with slight bronze tinge, with apices narrowly, separately rounded. Humeral callosities, transverse basal depression and short postscutellar triangle blue-green. Transverse, basal depression deep, extending from anterior margin of humeral callosities to scutellum; elytral surface blue-green in this depression. Elytron narrower towards anterior and posterior margin, depressed along lateral margin, depression reaching half of elytral length.

Ventral surface lustrous black. Surface consists of polygonal cells with central grains with setae, except for abdomen, where border of cells are less visible and central grains almost invisible, yet still with long white setae (longer than setae at dorsal side). Prosternum black with blue-green tinge; ventral side of pronotum black with blue-green tinge and blue-green margins. Meso- and metasternum black with blue-green tinge. Metacoxae black with blue-green tinge, with short, distinct spine on posterolateral angle. Sternites lustrous black and with very weak blue-green tinge (colour depends on angle of light). Last sternite missing in holotype, in both paratypes very obtusely rounded, along whole margin slightly depressed. Legs black with blue tinge; adhesive pads and tarsal claws brown. All tibiae unmodified, with long setae on inner margins; metatibiae with setae also on outer margins.

Aedeagus widest at second third, then narrower; parameres distinctly serrate along both lateral margins (Fig. 21). Serration ends at the beginning of the tip. Median lobe spindle shaped with very fine serration along lateral margins; tip obtusely pointed (description of median lobe is based on paratype, because tip is broken in holotype).

Sexual dimorphism. The most distinct is the difference in the shape of the elytra (wedge-shaped in male, subparallel in female) and in the shape of the last ventrite (more pointed, with “W” shaped apical depression in female). Another difference is in the colour of the frons (green in male, black-green in female) and in the colour of ventral side of the body and legs (black with blue-green tinge in male, black without tinge in female, Figs. 15, 16).

Measurements. Length: 3.4–3.6 mm (holotype 3.4 mm), width: 1.2–1.3 mm (holotype: 1.2 mm).

Differential diagnosis. The most similar species is *Anthaxia (Haplanthaxia) javanica continentalis* from Malaysia. *Anthaxia (Haplanthaxia) serramera* can be easily distinguished by having the vertex narrower than the width of an eye (0.7 times as wide as eye) in contradiction to having the vertex as wide as an eye in *A. javanica continentalis*, and especially by the completely different shape of the aedeagus, which is unique within the entire *Anthaxia (Haplanthaxia) aeneocuprea* species-group (Fig. 21). Females can be distinguished by the different shape of the scutellum (in *A. javanica continentalis* the scutellum is wider than longer, in *A. serramera* the scutellum is as wide as long) and by the different last sternite, which is obtusely rounded, without a notch in *A. serramera*, while notched in *A. javanica continentalis*.

Bionomy. Unknown. All specimens from Taman Negara were found in pupal cells in twigs of an unknown broadleaf tree (T. Tichý pers. comm.).

Distribution. Malaysia: Pahang, Perak.

Etymology. The species epithet is a shortened combination of the Latin word “serratus” and the term “paramere”, and was chosen in order to stress the unique shape of aedeagus.

Anthaxia (Haplanthaxia) dayaka Bílý, 1991

(Figs. 23–30)

Anthaxia (Haplanthaxia) dayaka Bílý 1991: 128.

Anthaxia (Merocratus) priska Bílý in Bílý & Plachetka 2019: 87, **syn. nov.**

Type specimens examined. *Anthaxia (Haplanthaxia) dayaka*: **Malaysia:** Holotype ♂ (NMPC): Quop, / W. Sarawak / G. E. Bryant. / 30. iii. [19]14 // ex coll. S. Bílý / National Museum / Prague, Czech Republic // HOLOTYPE ♂ / Anthaxia / Haplanthaxia / dayaka sp. nov. / Sv. Bílý det., 1990. [red label, handwritten except “Holotypus, Sv. Bílý det., 19”].

Anthaxia (Merocratus) priska: **Indonesia:** Holotype ♂ (NMPC): INDONESIA, Kalimantan Barat pr. / SW Kalimantan, 1000–1500 m alt. / Singkawang region, i. 2018 / MT. BAWANG, Madi vill. env. / local collectors leg. // HOLOTYPE ♂ / Anthaxia / Merocratus / priska sp. nov. / Sv. Bílý det., 2019. [red label, printed]. Allotype ♀ (NMPC): same data as holotype. Paratypes: 5 ♂ (MOCO, NMPC, MPCP): same data as holotype. All mentioned specimens bear a new label: *Anthaxia (Haplanthaxia) / dayaka / Bílý, 1991 / det. M. Plachetka & D. Rydz 2025*.

Additional specimens examined. Indonesia: 1 ♂ (NMPC): Bukit Soeharto / Kalimanatan Timur / Indonesia / 3.–9. ii. 1998 // Malaise Trap def. 3 // ex coll. S. Bílý / National Museum / Prague, Czech Republic // Anthaxia / (Haplanthaxia) / dayaka / Bílý, 1990 / Sv. Bílý det. 2015; 1 ♂ (NMPC): same data and labels except “31. iii.–6. iv. 1998 and Malaise Trap Nat—1”; 2 ♂, 1 ♀ (MPCP): same data as holotype of *A. priska*.

Remarks. During our preparation of this paper, we had an opportunity to study the holotype of *Anthaxia (Haplanthaxia) dayaka* Bílý, 1991, two specimens determined by Svatopluk Bílý as *Anthaxia dayaka* (Figs. 23, 25, 26), and the holotype and some paratypes of *Anthaxia priska* Bílý, 2019 (Figs. 24, 27, 28, 29, 30), a species described in Bílý & Plachetka (2019). We failed to find any substantial difference among these specimens, except for minor variability in size and colouration, present also among specimens determined as *A. dayaka*. Therefore, we consider *Anthaxia priska* Bílý, 2019 to be a junior synonym of *Anthaxia dayaka* Bílý, 1991. The exact position of this species within the subgenera *Haplanthaxia* Reitter, 1911 or *Merocratus* Bílý, 1989 can be debated, but in our opinion, it does not bear several important *Merocratus* characters. These include the structure of the pronotum which should be at least partly with wrinkles and without cells with a central grain and also the shape of the anal sternite should be slightly different. Furthermore, the shape of the aedeagus in *A. priska* is different from all known *Merocratus* species. Based on this evaluation we believe that *Anthaxia dayaka* Bílý, 1991 belongs to the subgenus *Haplanthaxia*. Its position in the *A. aeneocuprea* species-group is also unique, but we believe that attribution of this species to this species-group is correct, especially because of the general shape of body.



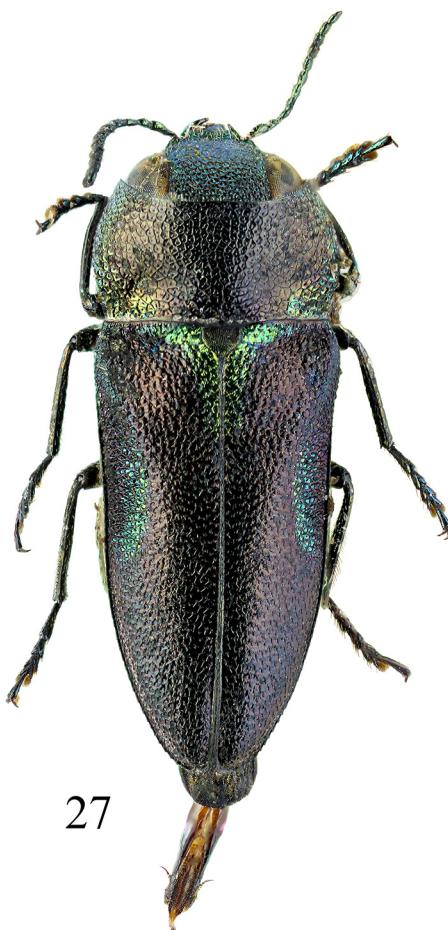
FIGURES 21–24. 21, *Anthaxia (H.) serramera* sp. nov., holotype, aedeagus; 22, *Anthaxia (H.) erjani* sp. nov., holotype, aedeagus; 23, *Anthaxia (H.) dayaka* Bílý, 1991, holotype, aedeagus; 24, *Anthaxia (H.) priska* Bílý, 2019, paratype, aedeagus.



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FIGURES 25–28. 25, *Anthaxia (H.) dayaka* Bily, 1991, male, dorsal view; 26, *Anthaxia (H.) dayaka* Bily, 1991, male, ventral view; 27, *Anthaxia (H.) priska* Bily, 2019, holotype, dorsal view; 28, *Anthaxia (H.) priska* Bily, 2019, paratype, ventral view.



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FIGURES 29–32. 29, *Anthaxia (H.) priska* Bily, 2019, female, dorsal view; 30, *Anthaxia (H.) priska* Bily, 2019, female, ventral view; 31, *A. (H.) javanica javanica* Obenberger, 1924, lectotype, dorsal view; 32, *A. (H.) javanica javanica* Obenberger, 1924, lectotype, ventral view.

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