ANNALS OF THE UPPER SILESIAN MUSEUM IN BYTOM
ENTOMOLOGY
Vol. **30 (online 001)**: 1–9 ISSN 0867-1966, eISSN 2544-039X (online) Bytom, 29.01.2021

Jarosław Kania[1], Roman Borovec[2]

Two new species of *Antinia* Pascoe from Malaysia and some notes on *Dermatodina* Faust from Japan (Coleoptera: Curculionidae: Entiminae)

http://zoobank.org/References/9DFA99B3-49D7-4889-8B4A-3BBC92901040
http://doi.org/10.5281/zenodo.4478289

[1] Zoological Institute, University of Wrocław, ul. Przybyszewskiego 63/77, 51-148 Wrocław, Poland, e-mail: jaroslaw.kania@uwr.edu.pl

[2] Sloupno 64, 503 53 Smidary, Czech Republic, e-mail: romanborovec@mybox.cz

Abstract: *Antinia bella* **sp. n.** and *A. luna* **sp. n.** from Malaysia are described, figured and compared with the most related species. Key to genus *Antinia* is provided. The right transfer of *Antinia ashizuriana* Morimoto, 2015, *A. awana* Morimoto, 2015, *A. awajiana* Morimoto, 2015, *A. inuyamana* Morimoto, 2015, *A. iseana* Morimoto, 2015 and *A. kongosana* Morimoto, 2015 to *Dermatodina* Faust, 1895 made by Alonso-Zarazaga (2017) is confirmed.

Key words: taxonomy, weevils, new species, Oriental region, species discovery.

INTRODUCTION

The genera *Antinia* Pascoe and *Dermatodina* Faust were created at the end of the 19th century (Pascoe 1871, Faust 1895). Half a century later, *Dermatodina* was classified as the subgenus of *Antinia* (Emden 1936, 1944, Emden & Emden 1939). Since then, 10 species from South-East Asia have been described as new for science (Kania 2003, Kania & Piwnik 2017, Kania & Stojczew 2001, Kania & Wiater 2006, Kojima & Idris 2003, Voss 1958). The genus *Antinia* has been also revised (Kania & Dąbrowska 1995). In 2015, Morimoto and co-workers described 6 species of the genus *Antinia* originating from Japan. A few years later, Kania & Piwnik (2017) restored the generic rank for *Dermatodina* Faust, giving diagnoses of both genera. According to Morimoto, all *Antinia* species from Japan described by him are characterized by the following features: rostrum wider than long, pronotum almost straight and not bisinuate at basal margin, elytra ovate, without setae along basal margin, scutellum absent, claws symmetrical, male aedeagus without parameres on tegmen, with a small round sclerite at gonopore in internal sac, antennae robust with stout clubs, and elytra with transverse bands. Therefore, we believe that all species of *Antinia* described by Morimoto *et al*. (2015) as new for science should be transferred to *Dermatodina* as proposed by Alonso-Zarazaga (Alonso-Zarazaga *et al*. 2017) (see the checklist below). In this work, we describe two species *Antinia bella* and *A. luna* from Malaysia.

MATERIAL AND METHODS

Body length of all specimens was measured in dorsal view from the anterior border of the eyes to the apex of the elytra, excluding the rostrum. Width/length ratio of the rostrum was measured at the maximum width at base versus maximum length to the base of the mandibles. Width/length ratios of pronotum, elytra, antennal segments and tarsomeres were taken at the maximum width and length of the respective parts in dorsal view; length of onychium was taken as exceeding part from the outline of tarsal segment 3. Dissected male and female genitalia were studied in glycerine. Habitus images were taken with a Canon EOS 5D mark II in combination with a Canon MP-E65 1-5x macro lens. Images were stacked by Zerene Stacker and edited in Adobe Photoshop CC 2015. The terminology of the rostrum and the terminalia follows Oberprieler *et al.* (2014).

Checklist of *Antinia* and *Dermatodina*

Antinia Pascoe, 1871 (type species: *Antinia eupleura* Pascoe, 1871 by monotypy)

1. ***eupleura*** Pascoe, 1871

Malaysia (Penang), Thailand (Khao Chong)

2. ***bella*** **sp. nov.**

Malaysia (Johor, Gunung Panti Forest)

3. ***luna*** **sp. nov.**

Malaysia (Kampung Ulu Dong)

4. ***pendleburyi*** Marshall, 1932

Malaysia (Malay Peninsula: Langkawi Is., West Coast)

5. ***viridis*** Kojima & Idris, 2003

Malaysia (Cameron Highlands)

Dermatodina Faust, 1895 (type species: *Dermatodina vitiosa* Faust, 1895 by monotypy)

1. ***ashizuriana*** (Morimoto, 2015)

Japan (Cape Ashizuri, Shikoku)

2. ***awana*** (Morimoto, 2015)

Japan (Tokushima Pref. Naruto City and Itano-cho)

3. ***awajiana*** (Morimoto, 2015)

Japan (Awaji-shima I.)

4. ***boroveci*** Kania & Piwnik 2017

Thailand (Nan Prov., Ban Huay Kon env.)

5. ***holynskiorum*** (Kania & Stojczew, 2001)

Vietnam (Tam Dao)

6. ***inuyamana*** (Morimoto, 2015)

Japan (Aichi Pref.: Inuyama)

7. ***iseana*** (Morimoto, 2015)

Japan (Mie Pref.: northern district)

8. ***kadeji*** (Kania & Wiater, 2006)

China (Canton, Ting-wŭ-Asi)

9. ***kongosana*** (Morimoto, 2015)

Japan (Nara Pref. : Mt. Kongosan; Osaka Pref. : Mt. Iwawaki)

10. ***szelagowiczi*** (Kania & Wiater, 2006)

China (Junh Fa Tam)

11. ***szypulai*** (Kania, 2001)

Burma (SW Shan State, Taunggyi)

12. ***variegata*** (Voss, 1958)

China (Shaowu, Kwangtseh)

13. ***vitiosa*** Faust, 1895

Indonesia (Java, Tjisarua and Tjibulan ad Bogor)

Antinia bella **sp. n.**

http://zoobank.org/NomenclaturalActs/1BAE77D7-9006-4C1E-9214-1C46DDD4907E

(Figs. 1, 3-5, 9-13)

Etymology. The Latin name *bellus*, meaning nice, pretty, refers to attractive vestiture of the species.

Diagnosis. *Anthinia bella* sp. n. belongs to *A. eupleura* Pascoe, 1871 species group, as defined by Kania & Wiater (2006), by distinct scutellum, margin of elytral base bordered with dense, anteriorly prominent setae, elytral striae punctate with fine setae inside each puncture and elytra long oval. From all the three species included, *A. eupleura*, *A. pendleburyi* Marshall, 1932 and *A. viridis* Kojima & Idris, 2003, *A. bella* is easily distinguishable by long erect elytral setae, elytra at base obliquely subtruncated and in basal two thirds subparallel-sided, epifrons with median longitudinal elevation and pro- and mesotibiae distinctly curved inside.

Description. Body length, except of rostrum: 5.28 mm; width of body 2.13 mm.

Body long oval, blackish (Fig. 1).

Body regularly densely covered by small, rounded, weakly imbricated appressed scales, 4-5 across width of one interval. Scales on elytra greyish; intervals 1 and 2 except of short apical part blackish, inner nine intervals with wide blackish interval transverse stripe at posterior declivity; vestiture contrastly coloured. Pronotum greyish with wide middle and slender lateral longitudinal blackish stripes. Head with rostrum and legs greyish. Elytra at inner six intervals with conspicuous, erect, slender, parallel-sided setae, slightly longer than width the interval, forming dense regular row on each interval, distance between two setae about equall to length of one seta; setae greyish and blackish. Pronotum, head with rostrum, femora and tibiae irregularly densely scattered by about identical erect setae as elytra, blackish, on pronotum about half as long as elytral ones, on the other parts even slightly shorter than setae on pronotum. Apical part of antennal scapes and funicle with short, semierect setae. Clubs densely squamose.

Head weakly constricted behind eyes, separated from rostrum by deep transverse sulcus. Median longitudinal furrow on vertex reaching from transverse sulcus to posterior eye

margin; eyes large, excentrically convex, widest behind midlength. Rostrum 1.05 × longer than wide, at basal two thirds weakly enlarged apicad with slightly concave sides, widest at apex; in lateral view almost flat (Fig. 3). Epifrons hidden basal third of rostrum in dorsal view; in basal half with weakly concave sides, at apical half slightly enlarged apicad, with straight sides; surface of epifrons with slender longitudinal median prominence at basal half; margins rised, middle part longitudinally shallowly depressed. Antennal scrobes in dorsal view invisible; in lateral view well edged, furrow-shaped, weakly curved and enlarged posteriad, directed against ventral border of eye.

Antennae short; scapes short, 0.9 × as long as funicle, weakly curved and evenly weakly enlarged apicad, at apex 0.8 × as wide as clubs. Segment 1 the biggest, conical, 1.1 × longer than wide and 1.4 × longer than isodiametric segment 2; segments 3 and 4 1.3 × wider than long; segment 5 and 6 1.5 × wider than long; segment 7 slightly longer than previous ones, 1.4 × wider than long; club short oval, 1.4 × longer than wide (Fig. 4).

Pronotum narrow, 1.07 × wider than long, at basal half subparallel-sided, at apical half weakly tapered apicad, behind anterior margin weakly constricted; anterior margin distinctly narrower than posterior margin. Disc of pronotum with slender median longitudinal elevation, laterally framed by longitudinal, ill-defined, shallow groves; lateral parts of pronotum with hardly visible, flat, ill-defined granules. Pronotum in lateral view weakly convex.

Scutellum small, rounded, densely squamose.

Elytra long oval, 1.72 × longer than wide, from base obliquely subtruncated, at basal two thirds subparallel-sided, apically evenly narrowly subtruncated. Intervals flat, equally wide; striae narrow, with slender, elongated punctures; each puncture with short and fine seta inside. Elytra in lateral view distinctly convex.

Legs moderately long and slender; pro- and mesotibiae distinctly curved inside at apical third, at apical half at inner side denticulate with 5-6 small and short, brownish spines; metatibiae almost straight, at apical two thirds denticulate with 7 light brownish spines of unequal size, middle four spines moderately large. Protibiae apically rounded, fringed densely by short yellowish setae. Metatibial corbels wide, densely squamose, fringed laterally and mesally by dense, short, yellow setae. Tarsi short and wide (Fig. 5). Segment 2 1.6 × wider than long; segment 3 1.5 × wider than long and 1.5 × wider than segment 2; onychium 0.6 × as long as segment 3; claws solidly fused at basal half, slightly divaricate.

Male terminalia as in Figs 9-13. Aedeagus with parameres on tegmen, with sclerites at gonopore in internal sac.

Type material.

Holotype (male): MALAYSIA, Johor, Gunung Panti Forest, N 1.866 E 103.88, 23.-27.v.2013, 40 m, E. Jendek & O. Šauša lgt.; preserved in coll. J. Kania (Wrocław, Poland).

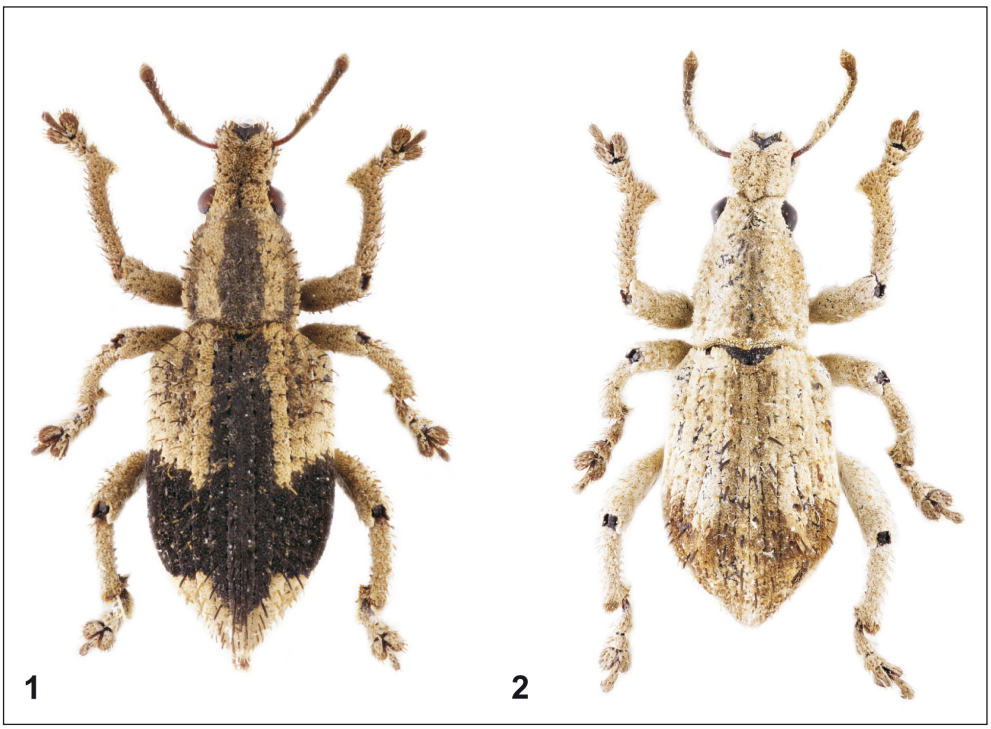
***Anthinia luna* sp. n.**

http://zoobank.org/NomenclaturalActs/B2F01911-8952-4B9E-BDFC-68D4969E0C0C

(Figs. 2, 6-8, 14-17)

Etymology. The name comes from the color of the moon (in the Latin *luna*).

Diagnosis. *Anthinia luna* **sp. n.** also belongs to *A. eupleura* Pascoe, 1871 species group, and here is the most similar to above described *A. bella*, by the same characters as stated above for distinguishing of *A. bella*. *A. luna* is easily distinguishable from *A. bella* by distinct



Figs. 1–2. Body in male, dorsal view. 1. *Antinia bella* **sp. nov.**; 2. *A. luna* **sp. nov.** (photo Pavel Krásenský).

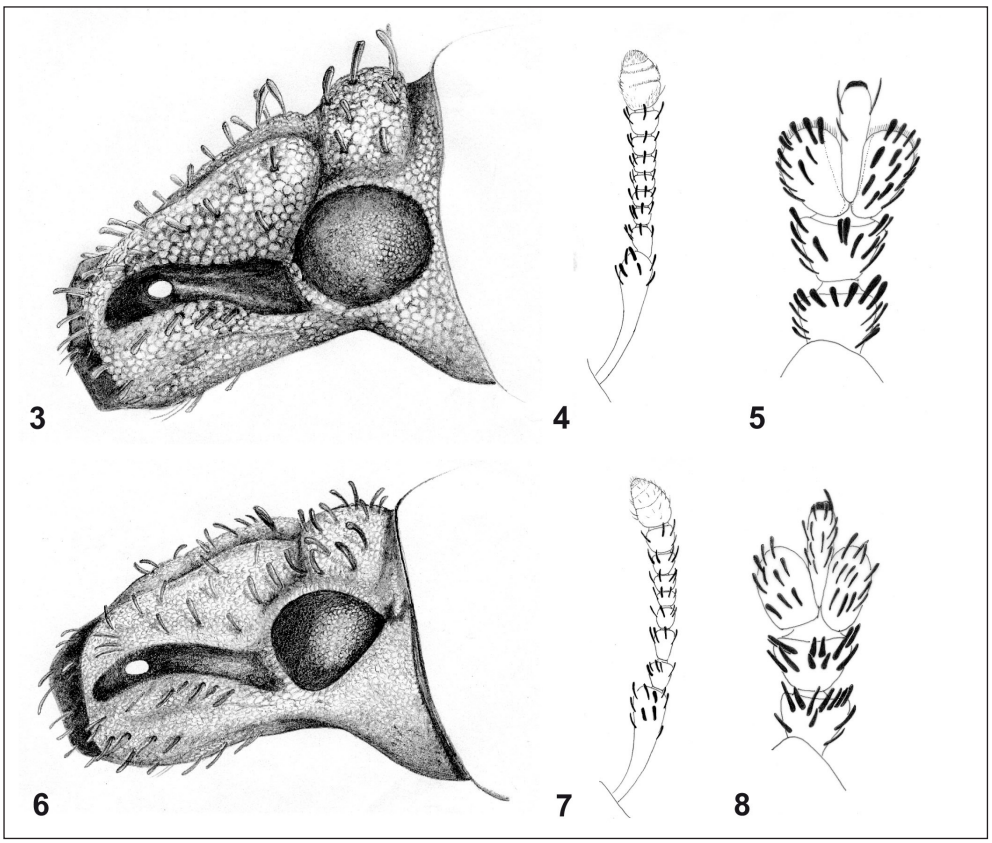
longitudinal bumps at elytral posterior declivity on intervals 3 and also widened and elevated intervals 1 and 5 in the same place, elytra in lateral view angle shaped at apical third, pronotum with longitudinal median furrow and pro- and mesotibia denticulate at apical two thirds.

Description. Body length, except of rostrum: 6.88 mm; width of body 2.81 mm.

Body longly egg-shaped, blackish (Fig. 2).

Body regularly densely covered by small, rounded, weakly imbricated, finely setose appressed scales, 5-7 across width of one interval. Elytra with scales whitish grey, with inconspicuous and ill-defined, light brownish longitudinal stripe on intervals 1 and 2 along the whole length and with well visible irregular, moderately wide, brownish transverse stripe at elytral posterior declivity at inner 6 intervals. Pronotum, head with rostrum, legs and antennae except of apical funicle segments whitish grey, only pronotum with hardly visible three slender, light brownish longitudinal stripes, at middle and in lateral parts. Elytra at inner five intervals with erect, conspicuous, slender, almost parallel-sided setae, whitish and blackish, almost as long as length of one interval, forming one regular row on each interval, distance of two setae weakly longer than length of one seta; setae form a sparse tuft on humps of interval 3 at posterior declivity. Pronotum, head with rostrum, femora with tibiae and tarsi, apical part of scapes and funicle with short, semierect slender whitish setae, about as long as third to fourth of length of elytral setae; clubs densely finely setose.

Head wide and short, weakly constricted behind eyes and distinctly separated from rostrum by transverse sulcus, in middle archedly interrupted by rostral median elevation (Fig. 6); vertex with longitudinal median groove along the whole eye length. Rostrum 1.08 × longer



Figs. 3–8. 3–5. *Antinia bella* **sp. nov.**; 6–8. *A. luna* **sp. nov.** 3, 6. head with rostrum in lateral; 4, 7. antenna; 5, 8. fore tarsus.

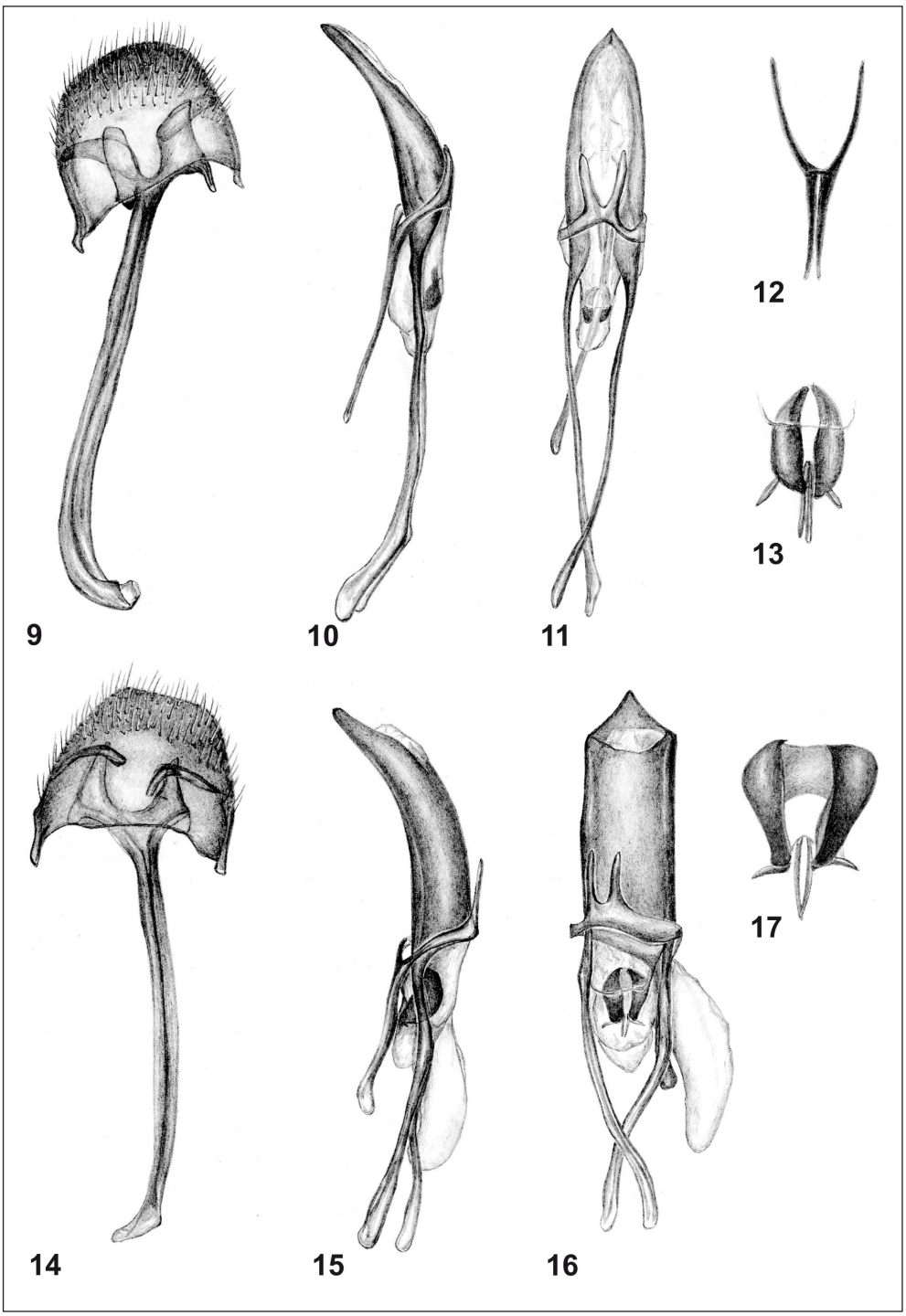
than wide, at apical half widened apicad with convex sides, widest before apex. Epifrons at basal half hidden rostrum in dorsal view, evenly tapered apicad with straight sides. Disc with slender longitudinal median elevation, reaching from basal part of epistomal keel to anterior portion of head; margins of epifrons rised, middle part longitudinally shallowly depressed. Antennal scrobes in dorsal view invisible; in lateral view well edged, furrow-shaped, weakly curved at apical part, directed against ventral border of eye.

Antennal scape short, 0.7 × as long as funicle, gradually enlarged apicad, at apex slightly clavate, 0.8 × as wide as clubs; funicle with segment 1 1.3 × longer than wide and 0.9 × shorter than segment 2, which is 1.3 × longer than wide; segments 3-6 1.3 × wider than long; segment 7 1.4 × wider than long; clubs short oval, 1.5 × longer than wide (Fig. 7).

Pronotum narrow, 1.02 × longer than wide, at posterior half subparallel-sided, at apical half narrowed apicad, apical margin narrower than posterior margin. Disc with shallow, ill-defined furrow from base to almost anterior margin, with irregular row of small, sparse granules along the whole length; lateral parts of pronotum with another shallow longitudinal furrow, shallowly punctured; lateral parts with hardly visible, flat, ill-defined granules. Pronotum in lateral view almost flat.

Scutellum small, slightly wider than long, densely squamose.

Elytra long oval, 1.59 × longer than wide, at base shortly obliquely subtruncated; at basal



Figs. 9–17. 9–13. *Antinia bella* **sp. nov.**; 14–17. *A. luna* **sp. nov.**; 9, 14. spiculum gastrale; 10, 19. aedeagus and tegmen in lateral view; 11, 16. aedeagus and tegmen in dorsal view; 12, 13, 17. sclerites in internal sac of aedeagus.

two thirds weakly enlarged posteriad with straight sides; apical third narrowly regularly tapered. Intervals flat; interval 1 at apical half enlarged and weakly elevated; interval 3 at apical declivity with distinct elongated bump and here enlarged; interval 5 at apical declivity slightly enlarged and elevated. Striae narrow, delicately punctured, punctures elongated with short and fine seta inside. Elytra in lateral view angle-shaped at apical declivity.

Legs moderately long and slender; pro- and mesotibiae distinctly curved inside at apical third, at apical two thirds at inner side denticulate with 8-9 small and short, brownish spines; metatibiae almost straight, at apical two thirds denticulate with 6 light brownish, moderately large spines of equal size. Protibiae apically rounded, fringed densely by short yellowish setae. Metatibial corbels wide, densely squamose, fringed laterally and mesally by dense, short, yellow setae. Tarsi short and wide (Fig. 8); tarsal segment 2 1.5 × wider than long; segment 3 1.5 × wider than long and 1.4 × wider than segment 2; onychium 0.9 shorter than segment 3; claws solidly fused at basal half, slightly divaricate.

Male terminalia as in Figs 14-17. Aedeagus with parameres on tegmen, with sclerite at gonopore in internal sac.

Type material. Holotype (male): Malaysia, KAMPUNG ULU DONG, 25 KM NE RAUB, 26.-31.03.2001, A. KUDRNA Jr. LGT.; preserved in coll. J. Kania (Wrocław, Poland).

Key to *Antinia*

1. Elytra with conspicuous erect setae, almost as long as width of one interval to slightly longer. Elytra at base obliquely subtruncated and in basal two thirds subparallel-sided or with straight sides. Epifrons with median longitudinal elevation. Pro- and mesotibiae distinctly curved inside **2**

–. Elytra with inconspicuous short, semiappressed setae, at most as long as half the width of one interval. Elytra at base regularly rounded with regularly rounded sides along the whole length. Epifrons dorsally flat or shallowly deepened. Pro- and mesotibiae straight **3**

2. Elytra with all intervals equally flat and wide. Funicle segment 1 1.4 × longer than segment 2, which is isodiametric. Pronotum with slender median longitudinal elevation. Pro- and mesotibia denticulate at apical half. Onychium 0.6 × shorter than tarsal segment 3. Male terminalia as in Figs. 9–13 ..... ***A. bella* sp. n.**

–. Elytra at posterior declivity with intervals 3 with conspicuously elevated longitudinal bump and with intervals 1 and 5 weakly elevated and enlarged. Funicle segment 1 0.9 × shorter than segment 2, which is 1.3 × longer than wide. Pronotum with longitudinal median furrow. Pro- and mesotibia denticulate at apical two thirds. Onychium 0.9 × shorter than tarsal segment 3. Male terminalia as in Figs. 14–17 ..... ***A. luna* sp. n.**

3. Elytra covered by green appressed scales. Male terminalia as in Figs. 6–10 in Kojima & Idris (2003) ..... ***A. viridis***

–. Elytra covered by light brown appressed scales **4**

4. Elytral striae formed by large, shallow foveolate with densely arranged punctures inside. Eyes unevenly convex, widest before midlength. Intervals 1 and 2 at basal third with dark brown scales, in posterior part with an oblique band which on interval 3 passes through tubercles covered with thicker and closer arranged setae. Penis with apex distinctly narrowed and tapered, with long sclerites (see Figs. 9 and 10 in Kania & Dąbrowska 1995) .... ***A. eupleura***

–. Elytral striae formed by fine, elongate punctures. Eyes unevenly convex, widest behind midlength. Interval 1 at basal third with dark brown scales, behind midlength from interval 2 with a dark band, lacking tubercles. Penis with apex narrowed but distinctly bluntly terminated, with sclerites short (see Figs. 18–20 in Kania & Dąbrowska 1995) .... ***A. pendleburyi***

REFERENCES

Alonso-Zarazaga M.A., Barrios H., Borovec R., Bouchard P., Caldara R., Colonnelli E., Gültekin L., Hlavác P., Korotyaev B., Lyal C.H.C., Machado A., Meregalli M., Pierotti H., Ren L., Sánchez-Ruiz M., Sforzi A., Silfverberg H., Skuhrovec J., Trýzna M., Velázquez de Castro A.J. & Yunakov N.N. 2017. Cooperative Catalogue of Palaearctic Coleoptera Curculionoidea. *Monografías electrónicas S.E.A* 8: 729 pp. (records)

Emden F.I. van 1936. Die Anordnung der Brachyderinae-Gatungen im Coleopterorum Catalogus. *Stettiner Entomologische Zeitung* 97: 66–99, 211–239.

Emden F.I. van 1944. A key to the genera of Brachyderinae of the world. *Annals and Magazine of Natural History*, Series 11(XI): 503–532, 559–586.

Emden M. van, Emden F.I. van 1939. Curculionidae: Brachyderinae III, pp. 197–327 + 1–59, In: Schenkling S. (Ed.), *Coleopterorum Catalogus auspiciis et auxilio W. Junk*, Pars 164 (Index Brachyderinarum).

Faust J. 1895. Rüsselkäfer aus dem Malayischen Archipel. *Stettiner Entomologische Zeitung* 56: 81–114.

Kania J. 2003. A new species of *Antinia* Pascoe from Burma (Coleoptera: Curculionidae: Entiminae). *Genus* 14(3): 413–418.

Kania J., Dąbrowska A. 1995. Revision of the genus *Antinia* Pascoe, 1871 (Coleoptera: Curculionidae: Brachyderinae). *Genus* 6(3–4): 493–518.

Kania J., Piwnik A. 2017. Notes on the genera *Antinia* Pascoe, 1871 and *Dermatodina* Faust, 1895 with description of *D. boroveci* sp. nov. from Thailand (Coleoptera: Curculionidae: Entiminae). *Zootaxa* 4232(3): 322–330. https://doi.org/10.11646/zootaxa.4232.3.2.

Kania J., Stojczew A. 2001. *Antinia holynskiorum* sp. nov. from Vietnam (Coleoptera: Curculionidae: Entiminae: Dermatodini). *Annales Zoologici* 51(1): 89–94.

Kania J., Wiater J. 2006. Two new species of the genus *Antinia* Pascoe, 1871 from China (Coleoptera: Curculionidae: Entiminae). *Genus* 17(3): 381–389.

Kojima H., Idris A.B. 2003. A peculiar new species of the genus *Antinia* Pascoe (Coleoptera: Curculionidae: Entiminae) from Malaysian moss forests, with notes on the sympatric weevils and beetle of similar appearance. *Serangga* 8(1–2): 73–82.

Morimoto K. 2015. In: Morimoto K, Nakamura T, Kannô K. Curculionidae: Entiminae (Part 2) (Coleoptera). The Insects of Japan, Vol. 4. Fukuoka, Touka Shobo [3] + 758 + [1] pp. [18-IX-2015]

Oberprieler R.G., Anderson R.S., Marvaldi A.E. 2014. 3. Curculionoidea Latreille, 1802: Introduction, Phylogeny, pp. 285–300, In: Leschen R.A.B., Beutel R.G. (Eds.), Handbook of Zoology, Arthropoda: Insecta; Coleoptera, Beetles, Vol. 3: Morphology and systematics (Phytophaga). Walter de Gruyter, Berlin/Boston.

Pascoe F.P. 1871. On the Curculionidae. *Journal of the Linnaean Society of London* 11: 154–218. https://doi.org/10.1111/j.1096-3642.1871.tb01661.x.

Accepted: 8 January 2021; published: 29 January 2021