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O. G. Gorbunov. A NEW SPECIES OF THE GENUS *ANTHEDONELLA* O. GORBUNOV ET ARITA, 1999 (LEPIDOPTERA, SESIIDAE) FROM THE ISLAND OF SIBERUT, MENTAWAI, INDONESIA. – Far Eastern Entomologist. 2015. N 299: 11-17.

A.N. Severtsov Institute of Ecology and Evolution, Russian Academy of Sciences, Leninsky prospekt 33, 119071 Moscow, Russia. E-mail: gorbunov.oleg@mail.ru

Summary. *Anthedonella siberutica* O. Gorbunov, **sp. n.** is described and figured from the island of Siberut, Mentawai, Indonesia. Holotype of new species is deposited in the collection of Zoological Institute, Russian Academy of Sciences, St. Petersburg, Russia.

Key words: Lepidoptera, Sesiidae, *Anthedonella*, new species, Indonesia, Siberut.

О. Г. Горбунов. Новый вид рода *Anthedonella* O. Gorbunov et Arita, 1999 (Lepidoptera, Sesiidae) с острова Сиберут, Ментаваи, Индонезия // Дальневосточный энтомолог. 2015. N 299. С. 11-17.

Резюме. С острова Сиберут, Ментавайские острова (Индонезия) описан *Anthedonella siberutica* O. Gorbunov, **sp. n.** Голотип нового вида хранится в коллекции ЗИН РАН в Санкт Петербурге.

The genus *Anthedonella* was described with *A. polyphaga* O. Gorbunov et Arita, 1999 as the type species (Gorbunov & Arita, 1999). At present day we include to the genus the following seven species: *A. flavida* O. Gorbunov et Arita 2000 (type locality: N. Vietnam, Ninh Binh Prov., Cuc Phuong), *A. ignicauda* (Hampson, 1919) (type locality: NW Myanmar, Chindwin, Kalewa), *A. jinghongensis* (Yang et Wang, 1989) (type locality: China, Yunnan, Jinghong), *A. opalizans* (Hampson, 1919) (type locality: Indonesia, North Maluku, Sula Is., Mangole Id.), *A. polyphaga* O. Gorbunov et Arita, 1999 (type locality: Nepal, Koshi, Dhankuta), *A. subtillima* (Bryk, 1947) (type locality: NE Myanmar, Kambaiti), and *A. theobroma* (Bradley, 1957) (type locality: Malaysia, Selangor, Seri Kembangan) (Gorbunov & Arita, 2000; 2001; Pühringer & Kallies, 2004).

During a short-time trip to the island of Siberut, the largest island of the Mentawai Islands, Indonesia, I could collect only a single species of the clearwing moth. After careful study of specimens collected, I came to the conclusion that they belong to a not yet described species of the genus *Anthedonella*. I describe it as a new to science below.

All labels of the holotype are shown in detail. Each label is separated by quotation marks, and lines in a label separated by a "/". The holotype of the new species is deposited in the collection of the Zoological Institute, Russian Academy of Sciences, St. Petersburg, Russia (ZISP). Paratypes are housed in the collection of the author (COGM).

DESCRIPTION OF A NEW SPECIES

***Anthedonella siberutica* O. Gorbunov, sp. n.**
Figs 1–9

MATERIAL. Holotype – ♂ (ZISP), with the labels: "**Indonesia**, Mentawai Is., / Siberut Id., 60 m, / 01˚35.45´S, 099˚09´E, / 29–31.I.2013, / O. Gorbunov leg."; "SESIIDAE / Pictures

№№ / 0115-0116–2014 / Photo by O. Gorbunov"; "HOLOTYPUS ♂ / *Anthedonella siberutica* / O. Gorbunov, 2015 / O. Gorbunov des., 2014". Paratypes (2 ♂♂, 1♀): ♂ (COGM), with the labels: "Indonesia, Mentawai Is., / Siberut Id., 60 m, / 01˚35.45′S, 099˚09′E, / 29–31.I.2013, / O. Gorbunov leg."; "PARATYPUS ♂ / *Anthedonella siberutica* / O. Gorbunov, 2015 / O. Gorbunov des., 2014"; ♂ (COGM), with the labels: "Indonesia, Mentawai Is., / Siberut Id., 60 m, / 01˚35.45′S, 099˚09′E, / 29–31.I.2013, / O. Gorbunov leg."; "PARATYPUS ♂ / *Anthedonella siberutica* / O. Gorbunov, 2015 / O. Gorbunov des., 2014"; "Genitalia examined / by O. Gorbunov / Preparation № / OG–003-2014"; ♀ (COGM), with the labels: "Indonesia, Mentawai Is., / Siberut Id., 60 m, / 01˚35.45′S, 099˚09′E, / 29–31.I.2013, / O. Gorbunov leg."; "SESIIDAE / Pictures №№ / 0121-0122–2014 / Photo by O. Gorbunov"; "PARATYPUS ♀ / *Anthedonella siberutica* / O. Gorbunov, 2015 / O. Gorbunov des., 2014"; "Genitalia examined / by O. Gorbunov / Preparation № / OG–004-2014".

DESCRIPTION. Male (holotype) (Figs 1, 2). Alar expanse 16.2 mm; body length 8.8 mm; forewing 7.5 mm; antenna 5.8 mm.

Head: antenna dorsally black with green-blue sheen, with a small yellow spot at apical quarter, ventrally yellow with black apical quarter; scapus yellow ventrally and black with purple sheen dorsally; frons grey with bronze-violet sheen, with a narrow silvery-white stripe laterally; vertex black with violet sheen; labial palpus yellow with a few brown scales on two apical joints exterior-distally; occipital fringe yellow.

Thorax: patagia dark brown to black with purple-violet sheen, with a small yellow spot laterally; tegula black with green-violet sheen, narrowly bordered with yellow scales; mesonotum black with green-violet sheen; metanotum yellow with a small black with greenish sheen laterally; thorax laterally yellow with a small black with green-blue sheen spot medially on both meso- and metapleuron; posteriorly both metepimeron and metameron yellow with golden sheen covered with flat scales only.

Legs: neck plate yellow with golden sheen with a few brown scales medially; fore coxa yellow to pale yellow with golden sheen; fore femur black with green-violet sheen externally and yellow internally; fore tibia entirely yellow to yellow-orange; fore tarsus yellow ventrally, dorsally dark brown to black with bronze sheen, with a narrow yellow stripe on two basal tarsomeres distally; mid coxa yellow with golden sheen, with a few brown posteriorly; mid femur externally black with blue-green sheen, with an admixture of yellow scales posterior-basally, internally yellow; mid tibia yellow with golden sheen, distally with a small black spot with dark blue sheen exterior-dorsally; spurs yellow with golden sheen; mid tarsus ventrally yellow with golden sheen, dorsally basal tarsomere dark brown with bronze-violet sheen, with a narrow yellow stripe both basally and distally, remaining tarsomeres dark brown with brown-violet sheen; hind coxa yellow with golden sheen, with a few brown posteriorly; hind femur externally black with blue-green sheen, with an admixture of yellow scales posterior-basally, internally yellow; hind tibia basally narrowly black with blue-violet sheen, exterior-dorsally black with green-blue sheen with a small yellow spot at base of both pairs of spurs, internally yellow with golden sheen; spurs yellow with golden sheen; hind basal tarsomere exterior-dorsally black with green-blue sheen, with a narrow yellow strip distally, tarsomeres 2–4 exterior-dorsally black with bronze-golden sheen, with a narrow yellow strip distally, interior-ventrally tarsomeres 1–4 and apical tarsomere entirely yellow with golden sheen.

Abdomen: dorsally black with greenish sheen; each tergite with a narrow yellow with golden sheen stripe distally; stripe on tergite 4 broadened laterally; anal tuft black with greenish-blue sheen, narrowly yellow laterally and with a small triangular spot medially; ventrally yellow with golden sheen; tergite 3 with a broad black stripe proximally; anal tuft black with greenish-blue sheen.

Fig. 1. *Anthedonella siberutica* sp. n., holotype ♂ (Sesiidae picture No 0115–2014), dorsal view. Alar expanse 16.2 mm.

Fig. 2. *Anthedonella siberutica* sp. n., holotype ♂ (Sesiidae picture No 0116–2014), ventral view. Alar expanse 16.2 mm.

Fig. 3. *Anthedonella siberutica* sp. n., paratype ♀ (Sesiidae picture No 0121–2014), dorsal view. Alar expanse 17.4 mm.

Fig. 4. *Anthedonella siberutica* sp. n., paratype ♀ (Sesiidae picture No 0122–2014), ventral view. Alar expanse 17.4 mm.

Forewing: dorsally at base black with dark purple sheen; costal and anal margins dark brown to black with dark green sheen with an admixture of individual yellow scales; Cu-stem dark brown to black with dark green sheen; discal spot narrow, nearly straight, black with dark purple sheen with individual yellow-orange scales distally; apical area broad about as broad as external transparent area, dark brown to black with purple sheen, with longitudinal yellow stripes between veins; transparent areas well-developed; posterior transparent area slightly exceeding distal margin of discal spot; external transparent area trapeziform, level to vein M_2 ca. 4.2 times broader than discal spot; distal margin of cell between veins R_3 and R_4 slightly exceeding distal margins cells between veins R_{4+5}–CuA_1; cilia brown with bronze sheen; ventrally costal and anal margins and Cu-stem dark brown with bronze sheen, densely mixed with yellow scales; discal spot dark brown with bronze-purple sheen, with dark yellow distal margin; apical area dark brown with bronze sheen on veins and yellow with golden sheen between veins; cilia brown with bronze sheen.

Hindwing: transparent; both dorsally and ventrally veins dark brown with dark purple sheen; discal spot undeveloped; outer margin extremely narrow, dark brown to black with bronze sheen; cilia brown with bronze sheen, yellow anally.

MALE GENITALIA (paratype, genital preparation No OG–003-2014). Tegumen-uncus complex narrow,; scopula androconialis well-developed, long, about as long as tegumen-uncus complex (Fig. 5); crista gnathi medialis relatively long with sinusoid margin; crista gnati lateralis shorter and narrower than crista gnathi medialis (Fig. 5); valva (Fig. 6) trapeziform-oval, crista sacculi nearly flat, covered with apically bifurcate setae; ventral crista small, covered with triangular flat-topped setae; aedeagus (Fig. 7) thin, slightly shorter than valva; vesica with numerous small cornuti.

FEMALE (paratype) (Figs 3, 4). Alar expanse 17.4 mm; body length 8.2 mm; forewing 7.8 mm; antenna 5.2 mm.

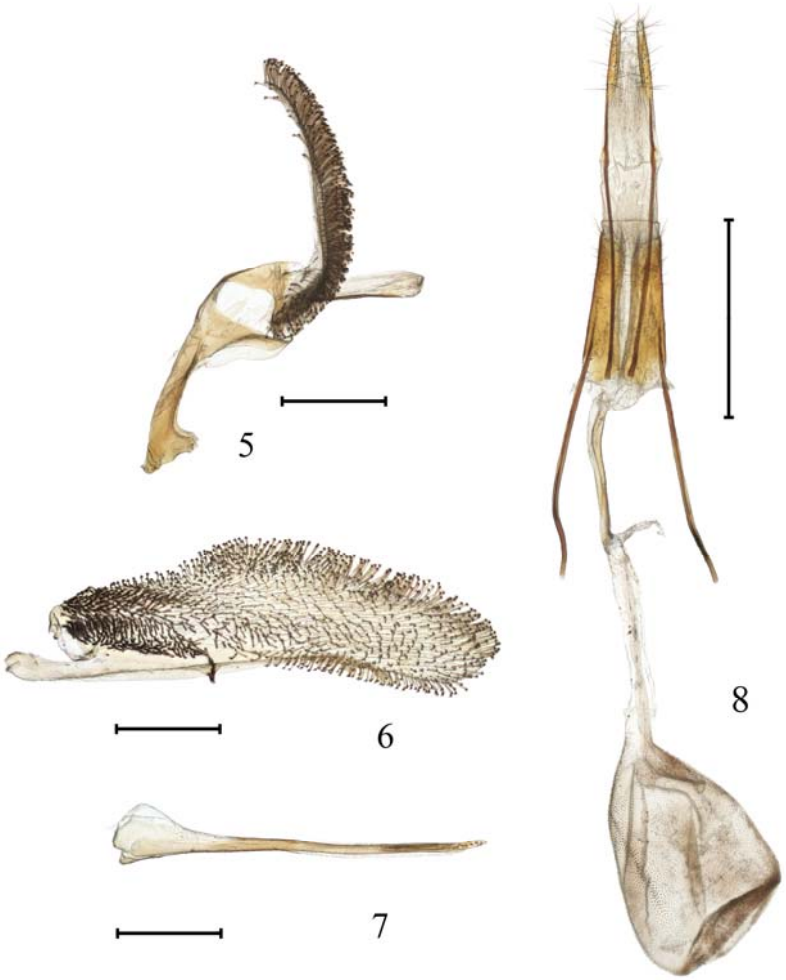
Antenna with a large yellow spot at apical quarter dorsally; fore coxa entirely yellow with golden sheen; dorsally discal spot of forewing with more numerous yellow-orange scales distally; external transparent area of forewing smaller, level to vein M_2 about twice as broad as discal spot and ca. trice narrower than apical area. Colour patterns otherwise as in male.

FEMALE GENITALIA (paratype, genital preparation No OG–004-2014) (Fig. 8). Papillae anales relatively long and narrow, covered with short setae; 8th tergite narrow and long with short setae; posterior apophysis about as long as anterior apophysis; both lamellae antevaginalis and postvaginalis undeveloped; ostium bursae somewhat anteriorly of 8th tergite; antrum relatively narrow, narrow, slightly depressed medially, long, about twice shorted than anterior apophysis, well sclerotized; ductus seminalis just from anterior margin of antrum; ductus bursae membranous, narrow, gradually broadened towards corpus bursae; relatively long, slightly longer than antrum; corpus bursae globose to ovoid, without signum, but with numerous flat spinules.

INDIVIDUAL VARIABILITY. Unknown for females. Males slightly vary in the number of yellow scales on the thorax, legs and abdomen. Size varies as follows. Alar expanse 17.2–16.0 mm; body length 9.0–8.6 mm; forewing 7.7–7.5 mm; antenna 6.0–5.8 mm.

DIFFERENTIAL DIAGNOSIS. By the conformation of the external transparent area of the forewing *Anthedonella siberutica* sp. n. seems to be closest to *A. theobroma*, but it can be easily distinguished by more broad external transparent area (level to vein M_2 ca. twice broader than discal spot and about twice narrower than apical area in the species compared), longer posterior transparent area of the forewing (slightly exceeding only proximal margin of discal spot in *A. theobroma*) and by the structure of both male and female genitalia (compare Figs 5–7 and 8 with figs 1–3 in Bradley, 1957). From *A. flavida* this new species is separable by the conformation of the external transparent area of the forewing (divided into six cells, cell between veins R_4 and R_5 slightly exceeding distal margins of other cells, level to vein M_2 about

3.5 times as broad as discal spot and about 1.2 times broader than apical area; compare Figs 1 and 3 with figs 9 and 10 in Gorbunov & Arita, 2000). From other congeners, such as *A. ignicauda*, *A. jinghongensis*, *A. opalizans*, *A. polyphaga*, and *A. subtillima*, *A. siberutica* sp. n. clearly differs by the coloration of the anal tuft (with bright red-orange, brick-red or fiery-red scales medially). By the presence of the yellow spot at apical quarter of the antenna *A. siberutica* sp. n. resembles species of the genus *Schimia* O. Gorbunov et Arita, 1999, such as *S. flava* (Hampson, 1879), *S. flavipennis* O. Gorbunov et Arita 1999, and *S. tanakai* O. Gorbunov et Arita, 2000, but it is distinguishable by the structure of both male and female genitalia (compare Figs 5–7 and 8 with Figs 47 and 52 in Gorbunov & Arita, 1999, and with Fig. 26 in Gorbunov & Arita, 2000).



Figs 5–8. Genitalia of *Anthedonella siberutica* sp. n. 5–7 – male (paratype, genital preparation No OG–003-2014): 5 – tegumen-uncus complex; 6 – valva; 7 – aedeagus; 8 – female (paratype, genital preparation No OG–004-2014). Scale bar: 0.5 mm.

HABITAT (Fig. 9). A dipterocarp primary forest on a small hill (up to 60 m a.s.l.) among sago-grove lowlands and swamp forests.

DISTRIBUTION. Known from the type-locality (island of Siberut, Indonesia).

ETYMOLOGY. This new species is named after type locality.

Fig. 9. Habitat of *Anthedonella siberutica* sp. n. on the island of Siberut, Mentawai Islands.

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