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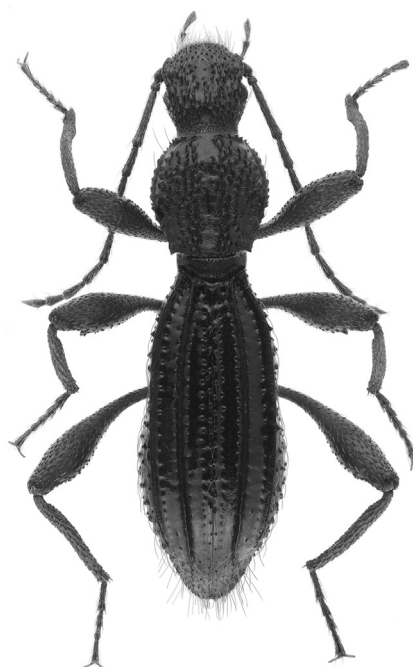


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To the knowledge of the genus *Aphthonoides* Jacoby, 1885 (Coleoptera: Chrysomelidae: Galerucinae: Alticini) from Malaysia and Indonesia

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Abstract. Four new species of the genus *Aphthonoides* Jacoby, 1885 are described: *A. bukittinggiensis* sp. n. (from Indonesia), *A. tambunanensis* sp. n., *A. trusmadiensis* sp. n. (from Malaysia) from the *beccarii* species-group, and *A. pseudosabahensis* sp. n. (from Malaysia) from the *laticollis* species-group. The figures of general views, aedeagi and spermathecae are given for them and the majority of related species. A new identification key to species of the genus *Aphthonoides* from Sundaland and the Philippines is given. Two new species-group (the *beccarii* and the *laticollis*) are proposed. The species of the *laticollis* group have the wide pronotum (more than 1.45 times as wide as long) with lateral margins nearly straight, converging anteriorly; anterior setigerous pore on lateral margin of the pronotum not or very slightly protrude outwards; basal margin of the pronotum strongly convex; male protarsomere I not or very slightly enlarged. Species of the *beccarii* group have the narrower pronotum (1.35 or less times as wide as long) with lateral margins straight or rounded, not converging anteriorly; anterior setigerous pore on lateral margin of the pronotum distinctly protrude outwards; basal margin of the pronotum slightly convex; male protarsomere I distinctly enlarged. The geographical distribution of *A. beccarii* Jacoby, 1885 and *A. laticollis* Heikertinger, 1940 has been clarified. The latter species is recorded for Malaysia for the first time.

Key words: Coleoptera, Chrysomelidae, Galerucinae, *Aphthonoides*, Indonesia, Malaysia, Borneo, Sumatra, new species.

К познанию жуков-листоедов рода *Aphthonoides* Jacoby, 1885 (Coleoptera: Chrysomelidae: Galerucinae: Alticini) Малайзии и Индонезии

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Резюме. Описано четыре новых вида жуков-листоедов рода *Aphthonoides* Jacoby, 1885: *A. bukittinggiensis* sp. n. (из Индонезии), *A. tambunanensis* sp. n., *A. trusmadiensis* sp. n. (из Малайзии) из группы видов *beccarii* и *A. pseudosabahensis* sp. n. (из Малайзии) из группы видов *laticollis*. Для них и большинства родственных видов приведены фотографии габитуса и полового аппарата. Дана новая определительная таблица для видов рода *Aphthonoides* из Сулавеси и Филиппин. Предложены две новые видовые группы (*beccarii* и *laticollis*). У видов группы *laticollis* переднеспинка широкая (ширина более чем в 1.45 раза превышает длину), с почти прямыми боковыми сторонами, сходящимися вперед; передняя щетинконосная пора на боковом крае переднеспинки не выступает или очень слабо выступает наружу; базальный край переднеспинки сильно выпуклый; первый членик передних лапок самца не увеличен или очень незначительно увеличен. У видов группы *beccarii* переднеспинка более узкая (ширина в 1.35 раза или менее превышает длину), с боковыми сторонами прямыми или закругленными, не сходящимися вперед; передняя щетинконосная пора на боковом крае переднеспинки отчетливо выдается наружу; базальный край переднеспинки слабо выпуклый; первый членик передних лапок самца отчетливо увеличен. Уточнено географическое распространение *A. beccarii* Jacoby, 1885 и *A. laticollis* Heikertinger, 1940. Последний вид впервые указан для Малайзии.

Ключевые слова: Coleoptera, Chrysomelidae, Galerucinae, *Aphthonoides*, Индонезия, Малайзия, Борнео, Суматра, новые виды.

The genus *Aphthonoides* was described by Jacoby [1885] with type species *Aphthonoides beccarii* Jacoby, 1885 from Java. Heikertinger [1940] provided a detailed description of the genus, described several species (including from the region under consideration: *A. fulmeki* Heikertinger, 1940 and *A. laticollis* Heikertinger, 1940 from Sumatra) and gave the first key to known at that time *Aphthonoides* species. Relatively recently, the fundamental work devoted to this genus was published by Döberl [2005]. In this work all known species of this genus were reviewed, as well as diagnostic characters of the genus, a key for all known species and a bibliography were given.

The genus *Aphthonoides* including 33 species known at this time (excluding those described in this work) is

widely distributed in the Oriental region from India to the Philippines and partly in the Palearctic region (two species from Japan and several Chinese species are distributed along Palearctic and Oriental border). *Aphthonoides* can be distinguished from other Alticini genera by the structure of hind leg with the long sword like spur which longer than the hind tarsus and connected to a very short tibia.

Although this genus was revised and keyed by Döberl [2005] the studying of the *Aphthonoides* fauna of Sundaland should not be considered complete. There are no species of this genus in the Catalogue of the Malaysian Chrysomelidae [Mohamedsaid, 2004]. After Döberl's work, the paper with description of a new species from Borneo has been published [Medvedev, Romantsov, 2014].

Further examination of the material collected by the author in Malaysia and Indonesia allows to describe four new species and to give new identification keys to species from Sundaland and the Philippines.

Material and methods

All measurements were made using an ocular grid mounted on MBS-20 stereomicroscope. Measurements of all segments were taken at their widest part, unless otherwise specifically stated. All the proportions of antennomeres and tarsomeres are given in standard units (1 standard unit = 0.025 mm). All photos were taken by the author using a Canon EOS 80D digital camera with a combined Canon EF 70–200 mm f/4.0L IS USM and inverted Canon EF-S 24mm F2.8 STM lenses (to photograph aedeagi and spermathecae Canon Extender EF 1.4 X II was additionally used). Images at different focal planes were combined using Zerene Stacker Professional 1.04 software.

The following abbreviations are used for depository places of types:

PR – private collection of Pavel Romantsov (St Petersburg, Russia);

ZIN – Zoological Institute of the Russian Academy of Sciences (St Petersburg, Russia).

Aphthonoides beccarii Jacoby, 1885
(Figs 1, 11–13, 43, 44, 58)

Material. 1♂, 1♀ (PR), “Indonesien, Sumatra II., West Sumatra Prov., 16 km W Bukittinggi, Maninjau Lake, h~527-610 m, S 0°17'08", E 100°13'46" S 0°17'07", E 100°13'55", 11.II.2018 P. Romantsov leg.”; 3♂, 1♀ (PR), the same data, but “12.II.2014”; 7♂, 1♀ (PR), “Indonesien, Sumatra II., West Sumatra Prov., 16 km W Bukittinggi, Maninjau Lake; h~695-790 m, S 0°16'18", E 100°14'00" S 0°16'22", E 100°14'11", 13.II.2018 P. Romantsov leg.”

Type material is not examined, but image of the type specimen is available in free access on the website of the Harvard University [https://mczbase.mcz.harvard.edu/name/Aphthonoides%20beccarii].

Differential diagnosis. *Aphthonoides beccarii* has elongate body, about 2 times as long as wide or slightly more; narrow pronotum with lateral margins not converging anteriorly, anterior setigerous pore on lateral margin of pronotum distinctly protrude outwards and slightly rounded basal margin with middle of pronotal base very weakly protruded; protarsomere I usually enlarged in males (see a key below). For other *Aphthonoides* species from the studied region having similar characteristics, I propose the name *beccarii* species-group. Moreover, within this group there is a complex of species that have short, wide, just 4 times longer than wide or shorter (usually 3.3–3.7 times) aedeagus which is strongly curved in middle in lateral view. This complex includes *A. beccarii*, *A. fulmeki* Heikertinger, 1940 and *A. bukittinggiensis* sp. n. Of them *A. beccarii* and *A. fulmeki* have aedeagus compressed before rounded apex in dorsal view and with tip not bent down in lateral view (Figs 11–13, 20–22), contrary to *A. bukittinggiensis* sp. n. having aedeagus with straight margins before triangular apex bearing distinct, sharp tooth and with hook-shaped tip bent down in lateral view (Figs 14–16). Moreover, *A. beccarii* easily differs from *A. fulmeki* in the pronotum with almost straight or very slightly rounded lateral margins, contrary to *A. fulmeki* having the pronotum with lateral margins distinctly diverging anteriorly. See also a key.

Notes. The distribution of this species needs clarification. When this paper was already accepted for publication I was able to study the specimens from Luzon and Mindanao on the basis of which Medvedev [2004] recorded *A. beccarii* from the Philippines. All these specimens were not dissected and Medvedev indicated that he was not sure in their identification. After dissected them, it turned out that they all belong to another species, most likely not described yet.

Distribution. China (Hupeh, Fukien), Japan (Kyushu), Java, Sumatra, Taiwan, Thailand.

Aphthonoides bergeali Döberl, 2005
(Figs 45, 46, 59)

Material. Type material is not examined.

Differential diagnosis. After Döberl [2005] this species differs from the majority of other species in surface of elytra punctate-striate with punctures fading behind middle and is most similar to *A. sumatranus* Döberl, 2005. However, *A. bergeali* can be distinguished from the latter in the aedeagus distinctly widened before apex (Figs 45, 46), contrary to *A. sumatranus* having the aedeagus with almost parallel sides, very slightly widened before apex (Figs 54, 55). This species belongs to the *beccarii* species-group. See also a key.

Distribution. Sumatra.

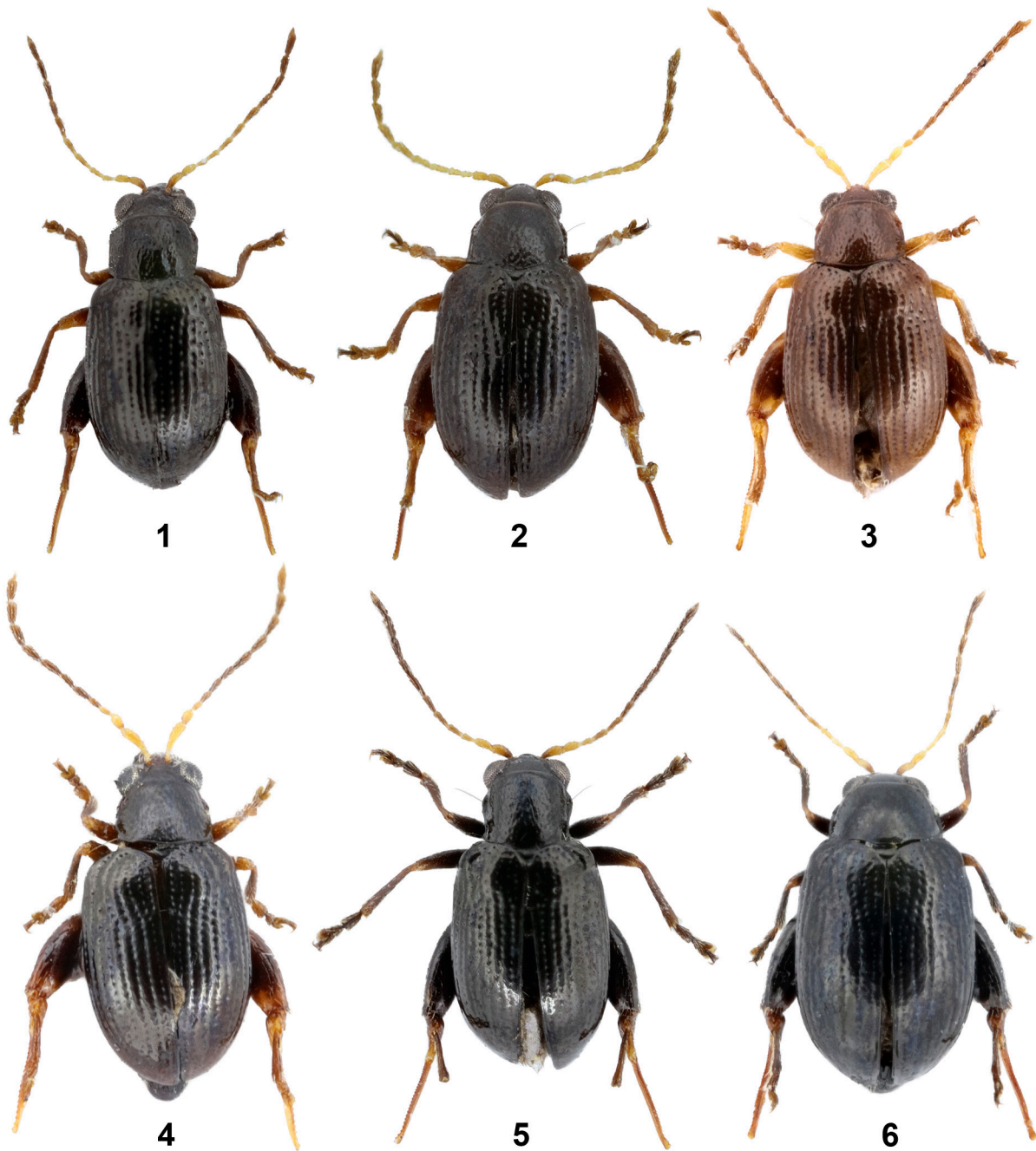
Aphthonoides bukittinggiensis sp. n.
(Figs 2, 14–16, 35)

Material. Holotype, ♂ (ZIN): “Indonesien, Sumatra II., West Sumatra Prov., 16 km W Bukittinggi, Maninjau Lake, h~527-610 m, S 0°17'08", E 100°13'46" S 0°17'07", E 100°13'55", 11.II.2018 P. Romantsov leg.”; Paratypes: 5♂, 1♀ (PR), the same data as holotype; 4♂, 1♀ (PR), the same locality and collector, but “12.II.2014”; 1♂, 5♀ (PR), “Indonesien, Sumatra II., West Sumatra Prov., 16 km W Bukittinggi, Maninjau Lake; h~695-790 m, S 0°16'18", E 100°14'00" S 0°16'22", E 100°14'11", 13.II.2018 P. Romantsov leg.”; 2♂, 2♀ (PR), the same data, but “14.II.2014”.

Description. Holotype. Dorsal side of body black. Antennae brown, gradually darkened starting antennomere VII. Legs brown with claws darkened. Underside of body dark brown. Body length 1.15 mm. General view as in Fig. 2.

Body oblong-oval (about 1.9 times as long as wide), dorsal side glabrous. Frons and vertex microsculptured and sparsely punctate. Penultimate maxillary palpomere very slightly enlarged, apical palpomere with sharp apex. Frontoclypeus triangular, at margins clearly limited by grooves. Genae moderately long, about 2 times shorter than transverse diameter of eye and about 2.3 times shorter than longitudinal diameter of eye. Nasal keel relatively wide, distinctly convex longitudinally. Frontal tubercles slightly convex, rectangular; frontal lines straight, distinctly impressed. Eyes medium size, convex, weak oval (1.17 times as long as wide); interocular space as wide as transverse diameter of eye. Antennae 1.15 times shorter than body length. Antennomere I large, club-shaped; antennomere II enlarged, other antennomeres cylindrical, last antennomere pointed at apex. Length ratio of antennomeres I–XI as 4 : 4 : 3 : 3 : 3.5 : 3.5 : 4 : 4 : 4.5 : 4.5 : 6.

Pronotum transverse, 1.2 times as wide as long (widest at anterior half, its lateral margins slightly constricted at basal third), almost 1.37 times narrower than elytra at level of humeral calli. Anterior margin almost straight, basal margin slightly rounded with middle of pronotal base very weakly protruded: ratio of total pronotal length across middle to length at posterior corners level 0.2. Lateral margins almost straight with bordering distinctly widened in anterior third, bearing anterior setigerous

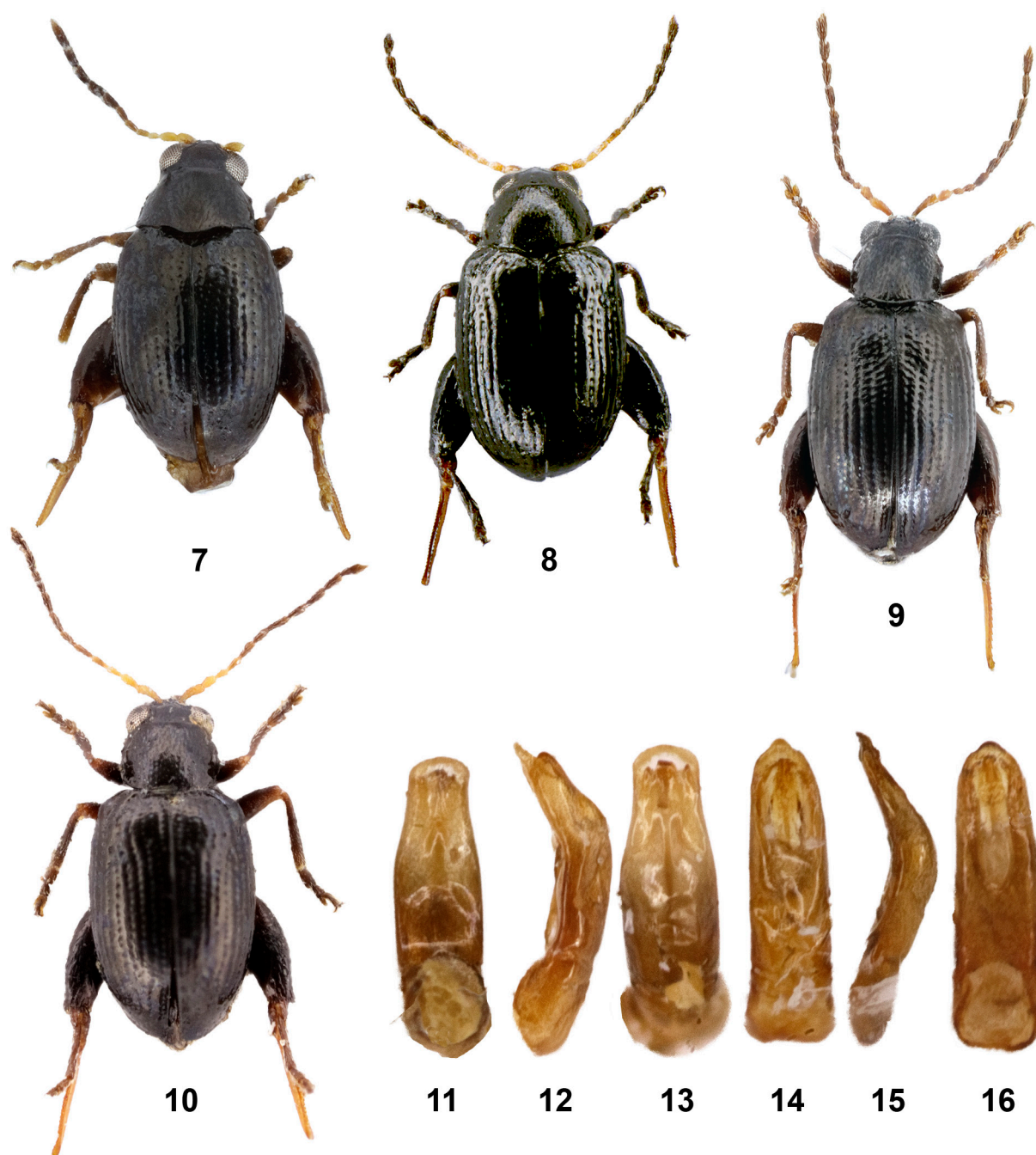
Figs 1–6. *Aphthonoides*, males, general view.1 – *A. beccarii*; 2 – *A. bukittinggiensis* **sp. n.**, holotype; 3–4 – *A. burckhardti*: 3 – light form, 4 – dark form; 5 – *A. fulmeki*; 6 – *A. laticollis*.Рис. 1–6. *Aphthonoides*, общий вид самцов.1 – *A. beccarii*; 2 – *A. bukittinggiensis* **sp. n.**, голотип; 3–4 – *A. burckhardti*: 3 – светлая форма, 4 – темная форма; 5 – *A. fulmeki*; 6 – *A. laticollis*.

pore distinctly protruded outwards. Anterior and posterior margins unbordered, lateral margins bordered. Anterior corners very slightly rounded and thickened; posterior corners obtuse. All corners with setigerous pore bearing long pale seta (longer at posterior corners). Pronotal surface densely and mostly longitudinally strigose and finely punctured.

Scutellum transverse (about 2 times as wide as long) with rounded apex. Surface lustrous and impunctate. Elytra about 1.35 times as long as wide, slightly widened at posterior third with narrowly rounded apices. Humeral calli well developed. Elytra with 8 regular rows of punctures (except scutellar row). Scutellar rows

with 8 punctures, row V short, not reach elytral base, other rows regular with well impressed punctures, interspaces narrow, flat, but a few lateral ones distinctly convex. Epipleura moderately wide at anterior quarter, gradually narrowing towards apex. Epipleural surface lustrous. Wings present, but somewhat shortened, not reaching elytral apex.

Legs robust with strongly thickened posterior femora. Posterior tibiae very short and provided with characteristic for genus apical spur. Tarsomere I of front and middle legs enlarged, not narrower than tarsomere III. Claws appendiculate. Anterior coxal cavities open posteriorly. Pygidium convex, with rounded apex.



Figs 7–16. *Aphthonoides*, males, general view and aedeagi.

7 – *A. pseudosabahensis* sp. n., holotype; 8 – *A. sabahensis*, holotype; 9 – *A. tambunanensis* sp. n., holotype; 10 – *A. trusmadiensis* sp. n., holotype; 11–13 – *A. beccarii*; 14–16 – *A. bukittingiensis* sp. n., holotype. 7–10 – habitus; 11–16 – aedeagi: 11, 14 – dorsal view, 12, 15 – lateral view, 13, 16 – ventral view.

Рис. 7–16. *Aphthonoides*, общий вид самцов и эдеагусы.

7 – *A. pseudosabahensis* sp. n., голотип; 8 – *A. sabahensis*, голотип; 9 – *A. tambunanensis* sp. n., голотип; 10 – *A. trusmadiensis* sp. n., голотип; 11–13 – *A. beccarii*; 14–16 – *A. bukittingiensis* sp. n., голотип. 7–10 – габитус; 11–16 – эдеагусы: 11, 14 – вид сверху, 12, 15 – вид сбоку, 13, 16 – вид снизу.

Aedeagus comparatively short and wide (Figs 14–16), about 3.3 times as long as wide; in dorsal view with straight margins before triangular apex bearing distinct sharp tooth. In lateral view aedeagus rather strongly curved in middle with hook-shaped tip bent down. Underside of aedeagus with distinct, deep lanceolate longitudinal impression in apical half. Length of aedeagus about 0.5 mm, width 0.15 mm.

Paratypes. Males are similar to the holotype, females have protarsomere I narrower than protarsomere III. Some paratypes

have antennae darkened starting from antennomere VI. Spermatheca as in Fig. 35. Body length 1.13–1.55 mm.

Differential diagnosis. *Aphthonoides bukittingiensis* sp. n., having the narrow pronotum with lateral margins not converging anteriorly, anterior setigerous pore on lateral margin of the pronotum distinctly protruding outwards and slightly rounded basal margin with middle of pronotal base very weakly protruded, belongs to the *beccarii*

species-group. Within this group *A. bukittingiensis* **sp. n.** together with *A. beccarii* and *A. fulmeki* forms a species complex with the aedeagus short, wide and strongly curved in middle. This new species differs from others congeners in an unique combination of characters: pronotum with lateral margins not diverging anteriorly; elytral surface punctate-striate with punctures distinct up to apex; the aedeagus is with straight lateral margins before triangular apex bearing distinct, sharp tooth and with hook-shaped tip bent down in lateral view (Figs 14–16); protarsomere I is enlarged and legs brown. See also a key and differential diagnosis for *A. beccarii*.

Distribution. Sumatra.

Etymology. The name of the new species refers to the type locality situated near Bukittinggi town.

Aphthonoides burckhardti Döberl, 2005
(Figs 3, 4, 17–19, 36, 60)

Material. 1♀ (PR), "MALAYSIA, N Borneo, Sabah, Keningau dist., Trus Madi Mt., h~1250m, N 05°26'35", E 116°27'5", 24-27.III.2012 P. Romantsov leg."; 1♂ (PR), the same data, but "09.III.2013"; 1♂ (PR), "MALAYSIA, N Borneo, Sabah, Keningau dist., Trus Madi Mt., h~1160m, N 05°25'58", E 116°26'22", 8.IV.2013 P. Romantsov leg."; 2♀ (PR), the same data, but "28.II.2014"; 1♀ (PR), "MALAYSIA, N Borneo, Sabah, Keningau dist., Trus Madi Mt., river h~830m, N 05°27'37", E 116°26'52", 26.II.2014 P. Romantsov leg."

Type material is not examined.

Differential diagnosis. After Döberl [2005], this species has dorsal side of the body uniformly yellow-brown with labrum blackish and apical 4–5 antennomeres slightly obscured. Among *Aphthonoides* collected by me on Borneo (Sabah), there are several specimens that are completely consistent with the rest of the characteristics of this species given in the Döberl's article (including shape of aedeagus). But they have dorsal side of body from dark brown (Fig. 3) to almost black (Fig. 4). The shape of their spermathecae (Figs 36, 60) is also similar. Until the type is studied, I believe that these specimens belong to *A. burckhardti*. See also a key.

Distribution. Borneo (Sabah).

Aphthonoides fulmeki Heikertinger, 1940
(Figs 5, 20–22, 37, 61)

Material. 8♂, 6♀ (PR), "Indonesien, Sumatra II., North Sumatra Prov, Sidebuk-Debuk Place, h~1490-1800m, N 03°13'37", E 098°30'02" N 03°14'11", E 098°29'41", 6-8.IV.2017 P. Romantsov leg."; 7♂, 6♀ (PR), the same locality, but "3-4.II.2018"; 5♂, 3♀ (PR), "Indonesien, Sumatra II., North Sumatra Prov, Sidebuk-Debuk Place, h~1400-1670m, N 03°13'17", E 098°30'43" N 03°12'55", E 098°31'00", 15.III.2020 P. Romantsov leg."

Type material is not examined, but image of the type specimen is available in free access on the Global Biodiversity Information Facility website [https://www.gbif.org/occurrence/1322683660].

Differential diagnosis. This species belongs to the complex of species within the *beccarii* species-group with the aedeagus short, wide, and strongly curved in middle. *Aphthonoides fulmeki* can be easily distinguished from other species in the pronotum with lateral margins distinctly diverging anteriorly. See also a key and differential diagnoses for *A. beccarii* and *A. bukittingiensis* **sp. n.**

Note. This species was described from Sumatra (near Berastagi town). During my Sumatra expeditions, I collected this species near its type locality many times. There are no records of this species being found in other places.

Distribution. Sumatra.

Aphthonoides laticollis Heikertinger, 1940
(Figs 6, 38, 52, 53, 62)

Material. 1♀ (PR), "Indonesien, N Sumatra, Aceh Prov, Ketambe Vill., h~414-550 m., N 03°41'01", E 097°39'16" N 03°41'26", E 097°39'27", 25.III.2017 P. Romantsov leg."; 1♂ (ZIN), "MALAYSIA, Benon Mts, 15 km. E. Kampong Dong, 700m 3,53N, 102.01E, 1.IV.1998 Dembický and Pacolátko leg."

Differential diagnosis. Based on the original description [Heikertinger, 1940], this species differs from other *Aphthonoides* known at that time in its very wide pronotum (more than 1.5 times as wide as long) with anterior setigerous pore on lateral margin not protruding outwards and in the body shape reminiscent of *Aphthona* species. I propose names the *laticollis* species-group for species with such characters. This group includes *A. laticollis*, *A. pseudosabahensis* **sp. n.**, *A. sabahensis* Medvedev et Romantsov, 2014 and *A. warchalowskii* Döberl, 2005. The differences between species of this group are given in a key below. See also differential diagnoses for *A. pseudosabahensis* **sp. n.** and *A. sabahensis*.

Notes. The above specimen from Malaysia has the aedeagus which almost completely corresponds to those in *A. laticollis* (Figs 52, 53).

Distribution. Sumatra, Peninsular Malaysia (new record).

Aphthonoides pseudosabahensis **sp. n.**
(Figs 7, 23–25, 39)

Material. Holotype, ♂ (PR): "MALAYSIA, N Borneo, Sabah, Keningau dist., Trus Madi Mt., h~1160m, N 05°25'58", E 116°26'22", 28.II.2014 P. Romantsov leg." Paratypes: 1♀ (ZIN), "MALAYSIA, N Borneo, Sabah, Keningau dist., Trus Madi Mt., h~1250m, N 05°26'35", E 116°27'5", 12-27.III.2013 P. Romantsov leg."; 1♀ (PR), "MALAYSIA, N Borneo, Sabah, Keningau dist., Trus Madi Mt., river h~830m, N 05°27'37", E 116°26'52", 27.II.2014 P. Romantsov leg."

Description. Holotype. Dorsal side of body black. Antennae with antennomeres I–III brown, antennomeres IV and V gradually darkened, rest of antennomeres black. Legs dark brown with somewhat lighter tibiae and tarsi. Underside of body dark brown. Body length 1.25 mm. General view as in Fig. 7.

Body oval (about 1.8 times as long as wide), dorsal side glabrous. Frons and vertex microsculptured and sparsely punctate. Penultimate maxillary palpomere distinctly enlarged, apical palpomere small, conical with sharp apex. Frontoclypeus triangular, clearly limited at margins by grooves. Genae moderately short, about 3 times shorter than transverse diameter of eye and about 4 times shorter than longitudinal diameter of eye. Nasal keel moderately wide, raised in middle. Frontal tubercles slightly convex, rectangular, with lustrous upper surface; frontal lines straight, distinctly impressed. Eyes medium size, convex, oval (1.33 times as long as wide); interocular space about 1.3 times as wide as transverse diameter of eye. Antennae short, about 1.6 times shorter than body length. Antennomere I large, club-shaped; antennomere II enlarged, antennomere II–IV cylindrical, rest of antennomeres slightly enlarged, last antennomere pointed at apex. Length ratio of antennomeres I–XI as 4 : 3 : 2 : 2.5 : 3 : 3 : 3.5 : 3.5 : 4 : 4 : 6.

Pronotum transverse, 1.58 times as wide as long (widest on base), with lateral margins converging anteriorly; about 1.2 times narrower than elytra at level of humeral calli. Anterior margin almost straight, basal margin rounded with middle of pronotal base distinctly protruded: ratio of total pronotal length across middle to length at posterior corners level 0.27. Lateral margins almost straight, but slightly notched before protruding anterior corners. Lateral bordering slightly widened in anterior third,

bearing setigerous pore on anterior corners which distinctly protruded outwards. Anterior and posterior margins unbordered, lateral margins bordered. Posterior corners obtuse. All corners with setigerous pore bearing long pale seta (longer at posterior corners). Pronotal surface slightly longitudinally strigose and finely punctured.

Scutellum transverse (about 2 times as wide as long), with rounded apex. Surface lustrous and impunctate. Elytra about 1.35 times as long as wide, slightly widened at posterior third with slightly rounded apices. Humeral calli well developed. Elytra with 9 regular rows of punctures (except scutellar row). Scutellar rows with 10 punctures, rows V and VI short, not reaching elytral base, other rows regular with well impressed punctures. Interspaces narrow, 2 interspaces near suture flat, next 3 ones convex, 3 lateral ones strongly convex. Epipleura moderately wide at anterior quarter, gradually narrowing towards apex. Epipleural surface lustrous. Wings present, but strongly shortened, noticeably not reaching elytral apex.

Legs robust with strongly thickened posterior femora. Posterior tibiae very short and provided with characteristic apical spur. Tarsomere I of front and middle legs very slightly enlarged, about 1.3 times narrower than tarsomere III. Claws appendiculate. Anterior coxal cavities open posteriorly. Pygidium convex with rounded apex.

Aedeagus comparatively short (Figs 23–25), 5.7 times as long as wide; in dorsal view with straight margins before triangular apex bearing small sharp tooth. In lateral view aedeagus slightly curved. Underside of aedeagus with longitudinal impression starting almost from base, rather deep in basal third, then gradually expanded to apical third where it becomes wide and shallow, almost flat. Length of aedeagus 0.57 mm, width 0.1 mm.

Paratypes. Females are similar to the holotype, but have lighter legs with protarsomere I somewhat narrower and more convex interspaces on elytra. Body length 1.5 mm. Spermatheca as in Fig. 39.

Differential diagnosis. *Aphthonoides pseudosabahensis* sp. n., having wide pronotum with lateral margins converging anteriorly, anterior setigerous pore on lateral margin of pronotum slightly protruding outwards and distinctly rounded basal margin of the pronotum with middle of pronotal base strongly protruded, belongs to the *laticollis* species-group and is most similar to *A. laticollis* and *A. sabahensis*. This new species differs from others congeners in a unique combination of characters: antennae relatively short, about 1.65 times shorter than body length; anterior setigerous pore on lateral margin of the pronotum slightly but distinctly protruding outwards; basal margin of the pronotum is less convex with the distance from level of posterior corners to the middle of posterior border 0.25–0.27 times of total length of the pronotum; apex of the aedeagus is triangular with pointed tip, in lateral view apical half of the aedeagus is almost straight (Figs 23–25). See also a key.

Distribution. Borneo (Sabah).

Etymology. The species name refers to similarity with *A. sabahensis*.

Aphthonoides sabahensis Medvedev et Romantsov, 2014
(Figs 8, 26–28, 40)

Material. 1♂, holotype (ZIN), "MALAYSIA, N Borneo, Sabah, Keningau dist., Trus Madi Mt., h~1250m, N 05°26'35", E 116°27'5", 17.III.2012 P. Romantsov leg"; 1♂, paratype (PR), the same data, but "10.IV.2013"; 1♀ (PR), the same data as paratype.

Differential diagnosis. This species having wide oval body, pronotum with lateral margins nearly straight,

converging anteriorly and with anterior setigerous pore on lateral margin of the pronotum not protruding outwards, as well as distinctly rounded basal margin of the pronotum with middle of pronotal base strongly protruded, belongs to the *laticollis* species-group and is similar to *A. laticollis* and *A. pseudosabahensis* sp. n. *Aphthonoides sabahensis* differs from the latter in longer antennae; anterior setigerous pore on lateral margin of the pronotum not protruding outwards and in more rounded basal margin of the pronotum. *Aphthonoides sabahensis* having the aedeagus wavy curved before apex in lateral view is very similar to *A. laticollis* from Sumatra with a similar structure of the aedeagus and with which the authors [Medvedev, Romantsov, 2014] did not compare it in the description. But *A. laticollis* has the pronotum somewhat wide and the narrower aedeagus slightly laterally compressed before the apex in dorsal view, less wavy before the apex in lateral view (Figs 52, 53), contrary to *A. sabahensis* having the pronotum somewhat narrower and the wider aedeagus slightly laterally compressed in the middle in dorsal view, strongly wavy before the apex in lateral view (Figs 26–28). Spermathecae in these species have a similar structure but with some differences (Figs 38, 40). See also a key.

Distribution. Borneo (Sabah).

Aphthonoides sumatranus Döberl, 2005
(Figs 54, 55, 63)

Material. Type material is not examined.

Differential diagnosis. Based on Döberl [2005] this species differs from the majority of other species in the surface of elytra punctate-striate with punctures fading behind middle and is most similar to *A. bergeali*. However, *A. sumatranus* can be distinguished from the latter in the aedeagus with almost parallel sides, very slightly widened before apex (Figs 54, 55), contrary to *A. bergeali* having the aedeagus distinctly widened before apex (Figs 11–13, 43, 44). This species belongs to the *beccarii* species-group. See also a key.

Distribution. Sumatra.

Aphthonoides tambunanensis sp. n.
(Figs 9, 29–31, 41)

Material. Holotype, ♂ (PR): "MALAYSIA, N Borneo, Sabah, ~16 km NW Tambunan, Crocker Range, h~1660–1950m N 05°48'47", E 116°20'16" N 05°49'32", E 116°20'27", 07.III.2014 P. Romantsov leg". Paratypes: 1♂ (ZIN), "MALAYSIA, N Borneo, Sabah, ~16 km NW Tambunan, Crocker Range, h~1660m, N 05°48'53", E 116°20'27", 16.IV.2013 P. Romantsov leg"; 1♀ (PR), the same data as holotype.

Description. Holotype. Dorsal side of body black, underside dark brown. Antennae with two basal antennomeres brown, next antennomeres gradually darkened. Legs brown with posterior femora darkened. Body length 1.7 mm. General view as in Fig. 9.

Body elongate, 2.06 times as long as wide, dorsal side glabrous. Frons and vertex microsculptured and sparsely punctate. Penultimate maxillary palpomere distinctly enlarged, apical palpomere narrow, conical. Frontoclypeus triangular, clearly limited at margins by grooves. Genae long, about 1.2 times shorter than transverse diameter of eye and about 1.4 times shorter than longitudinal diameter of eye. Nasal keel narrow, convex. Frontal tubercles slightly convex, rectangular; frontal lines straight, distinctly impressed. Eyes medium size, convex, weak oval (1.17 times as long as wide); interocular space as wide as transverse

Figs 17–42. *Aphthonoides*, aedeagi and spermathecae.

17–19, 36 – *A. burckhardti*; 20–22, 37 – *A. fulmeki*; 23–25, 39 – *A. pseudosabahensis* **sp. n.**: 23–25 – holotype, 39 – paratype; 26–28, 40 – *A. sabahensis* (26–28 – holotype); 29–31, 41 – *A. tambunanensis* **sp. n.**: 29–31 – holotype, 41 – paratype; 32–34, 42 – *A. trusmadiensis* **sp. n.**: 32–34 – holotype, 42 – paratype; 35 – *A. bukittinggiensis* **sp. n.**, paratype; 38 – *A. laticollis*. 17–34 – aedeagi; 35–42 – spermathecae. 17, 20, 23, 26, 29, 32 – dorsal view; 18, 21, 24, 27, 30, 33 – lateral view; 19, 22, 25, 28, 31, 34 – ventral view.

Рис. 17–42. *Aphthonoides*, эдеагусы и сперматеки.

17–19, 36 – *A. burckhardti*; 20–22, 37 – *A. fulmeki*; 23–25, 39 – *A. pseudosabahensis* **sp. n.**: 23–25 – голотип, 39 – паратип; 26–28, 40 – *A. sabahensis* (26–28 – голотип); 29–31, 41 – *A. tambunanensis* **sp. n.**: 29–31 – голотип, 41 – паратип; 32–34, 42 – *A. trusmadiensis* **sp. n.**: 32–34 – голотип, 42 – паратип; 35 – *A. bukittinggiensis* **sp. n.**, паратип; 38 – *A. laticollis*. 17–34 – эдеагусы; 35–42 – сперматеки. 17, 20, 23, 26, 29, 32 – вид сверху; 18, 21, 24, 27, 30, 33 – вид сбоку; 19, 22, 25, 28, 31, 34 – вид снизу.

diameter of eye. Antennae about 1.45 times shorter than body length. Antennomere I large, club-shaped; antennomere II enlarged, other antennomeres cylindrical, last antennomere pointed at apex. Length ratio of antennomeres I–XI as 7 : 4 : 2 : 3 : 4 : 4 : 5 : 5 : 4 : 4 : 6.

Pronotum slightly transverse, about 1.12 times as wide as long, about 1.5 times narrower than elytra at level of humeral calli. Anterior margin almost straight, basal margin slightly rounded with middle of pronotal base very weakly protruded: ratio of total pronotal length across middle to length at posterior corners level 0.2. Lateral margins with bordering slightly widened at anterior half, noticeably notched before posterior corners. Anterior corners bearing setigerous pore distinctly protruded outwards. Anterior and posterior margins unbordered, lateral margins bordered. Posterior corners obtuse. All corners with setigerous pore bearing long pale seta (longer at posterior corners). Pronotal surface bearing densely and mostly longitudinally strigose and finely punctured.

Scutellum transverse (about 1.3 times as wide as long), with rounded apex. Surface lustrous and impunctate. Elytra about 1.5 times as long as wide, slightly widened at posterior third with narrowly rounded apices. Humeral calli well developed. Elytra with 9 regular rows of punctures (except scutellar row). Scutellar rows with 8 punctures, row V short, not reach elytral base, other rows regular with well impressed punctures. Interspaces narrow, 2 interspaces near suture flat, next 3 ones convex, 3 lateral ones strongly convex. Epipleura moderately wide at anterior quarter, gradually narrowing towards apex. Epipleural surface lustrous. Wings present, but somewhat shortened, not reaching elytral apex.

Legs robust, with strongly thickened posterior femora. Posterior tibiae very short and provided with characteristic apical spur. Tarsomere I of front and middle legs elongate, slightly narrower than tarsomere III. Claws appendiculate. Anterior coxal cavities open posteriorly. Pygidium convex with rounded apex.

Aedeagus (Figs 29–31) 5.2 times as long as wide; with very weak curved lateral margins and wide triangular apex in dorsal view. In lateral view aedeagus gently curved. Underside of aedeagus with indistinct, wide, longitudinal impression before apex. Length of aedeagus 0.65 mm, width 0.125 mm.

Paratypes. Male is similar to the holotype but with slightly darkened legs; female is similar to the holotype but has less elongate body, protarsomere I somewhat narrower and more convex interspaces on elytra. Body length 1.62 mm in female and 1.8 mm in male. Spermatheca with wide vasculum with slightly curved lateral margins and longer apical part (Fig. 41).

Differential diagnosis. *Aphthonoides tambunanensis* **sp. n.**, having narrow pronotum with anterior setigerous pore on lateral margin distinctly protruding outwards and slightly rounded basal margin, belongs to the *beccarii* species-group and is most similar to *A. burckhardti* and *A. trusmadiensis* **sp. n.** This new species differs from *A. burckhardti* in dorsal side of body black and the longer aedeagus. *Aphthonoides tambunanensis* **sp. n.** differs from *A. trusmadiensis* **sp. n.** in the wider aedeagus (5.2–5.3 times as long as wide) with wide triangular apex in dorsal view and gently curved in lateral view. In contrast, *A. trusmadiensis* **sp. n.** has the narrower aedeagus (6.1–6.5 times as long as wide) with the narrow triangular apex; in lateral view the aedeagus is slightly sinuate in apical third. In addition, all these three species differ in the shape of the spermatheca (Figs 36, 41, 42). See also a key.

Distribution. Borneo (Sabah).

Etymology. The name of the new species refers to the type locality situated near the town of Tambunan.

Aphthonoides trusmadiensis **sp. n.**
(Figs 10, 32–34, 42)

Material. Holotype, ♂ (ZIN): "MALAYSIA, N Borneo, Sabah, Keningau dist., Trus Madi Mt., river h~830m, N 05°27'37", E 116°26'52", 27.II.2014 P. Romantsov leg". Paratypes: 2♂, 1♀ (PR), "MALAYSIA, N Borneo, Sabah, Keningau dist., Trus Madi Mt., h~1250m, N 05°26'35", E 116°27'5", 10.IV.2013 P. Romantsov leg"; 1♀ (PR), the same locality, but "11.IV.2013 P. Romantsov leg"; 2♀ (PR), "MALAYSIA, N Borneo, Sabah, Keningau dist., Trus Madi Mt., N 05°26'35", E 116°27'5" N 05°27'37", E 116°26'52", h~1250-830 m, 26.II.2014 P. Romantsov leg"; 3♂, 1♀ (PR), the same data as holotype.

Description. Holotype. Dorsal side of body black. Antennae with three basal antennomeres brown, next antennomeres gradually darkened. Legs strongly darkened with pale joints. Underside of body blackish. Body length 1.9 mm. General view as in Fig. 10.

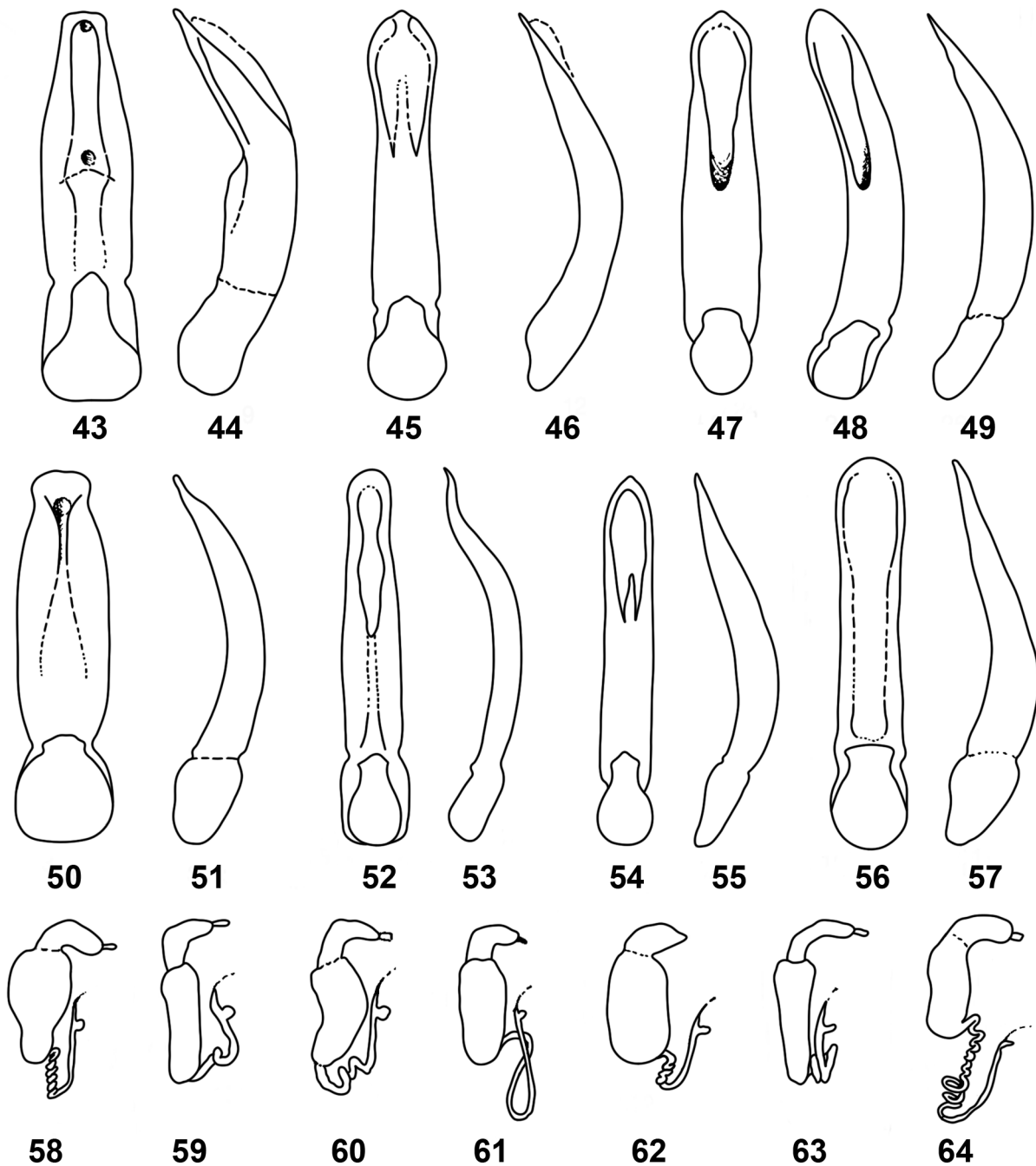
Body elongate, 2.14 times as long as wide, dorsal side glabrous. Frons and vertex microsculptured and sparsely punctate. Penultimate maxillary palpomere slightly enlarged; apical palpomere relatively large, approximately equal in length to previous palpomere and only slightly narrower. Frontoclypeus acute triangular, clearly limited at margins by grooves. Genae long, about 1.65 times shorter than transverse diameter of eye and about 2 times shorter than longitudinal diameter of eye. Nasal keel narrow, convex. Frontal tubercles slightly convex, narrow; frontal lines indistinct. Eyes medium size, convex, weak oval (1.2 times as long as wide); interocular space as wide as transverse diameter of eye. Antennae about 1.48 times shorter than body length. Antennomere I large, club-shaped; antennomere II slightly enlarged, other antennomeres cylindrical, last antennomere pointed at apex. Length ratio of antennomeres I–XI as 7 : 4 : 3 : 3 : 4.5 : 4 : 5 : 5 : 4 : 4 : 6.

Pronotum transverse, about 1.24 times as wide as long (broadest in middle part), about 1.5 times narrower than elytra at level of humeral calli. Anterior margin almost straight, basal margin slightly rounded with middle of pronotal base very weakly protruded: ratio of total pronotal length across middle to length at posterior corners level 0.2. Lateral margins with bordering approximately of same width throughout. Anterior corners bearing setigerous pore slightly but distinctly protruded outwards. Anterior and posterior margins unbordered, lateral margins bordered. Posterior corners obtuse. All corners with setigerous pore bearing long pale seta (longer at posterior corners). Pronotal surface bearing densely and mostly longitudinally strigose and finely punctured.

Scutellum transverse (about 1.5 times as wide as long), with rounded apex. Surface lustrous and impunctate. Elytra about 1.5 times as long as wide, slightly widened at posterior third with narrowly rounded apices. Humeral calli well developed. Elytra with 9 regular rows of punctures (except scutellar row). Scutellar rows with 9 punctures, row V short, not reach elytral base, other rows regular with well impressed punctures. Interspaces narrow, 2 interspaces near suture flat, next 4 ones slightly convex, 2 lateral ones distinctly convex. Epipleura moderately wide at anterior quarter, gradually narrowing towards apex. Epipleural surface lustrous. Wings present, not shortened.

Legs robust, with strongly thickened posterior femora. Posterior tibiae very short and provided with characteristic apical spur. Tarsomere I of front and middle legs enlarged: slightly elongate (about 1.33 times as long as wide) in protarsomere I and more elongate (about 1.65 times as long as wide) in mesotarsomere I; distinctly expanded (not narrower than tarsomere III) in both of these pairs of legs. Claws appendiculate. Anterior coxal cavities open posteriorly. Pygidium convex with rounded apex.

Aedeagus (Figs 32–34) 6.5 times as long as wide; with almost straight lateral margins and narrow triangular apex in dorsal view. In lateral view aedeagus slightly sinuate at apical third. Underside of aedeagus with distinct lanceolate impression in apical third. Length of aedeagus 0.65 mm, width 0.1 mm.



Figs 43–64. *Aphthonoides*, aedeagi and spermathecae (after Döberl [2005]).

43–44, 58 – *A. beccarii*; 45–46, 59 – *A. bergeali*; 47–49, 60 – *A. burckhardti*; 50–51, 61 – *A. fulmeki*; 52–53, 62 – *A. laticollis*; 54–55, 63 – *A. sumatranus*; 56–57, 64 – *A. warchalowskii*. 43–57 – aedeagi; 58–64 – spermathecae. 43, 45, 47, 48, 50, 52, 54, 56 – ventral view; 44, 46, 49, 51, 53, 55, 57 – lateral view.

Рис. 43–64. *Aphthonoides*, эдеагусы и сперматеки (по [Döberl, 2005]).

43–44, 58 – *A. beccarii*; 45–46, 59 – *A. bergeali*; 47–49, 60 – *A. burckhardti*; 50–51, 61 – *A. fulmeki*; 52–53, 62 – *A. laticollis*; 54–55, 63 – *A. sumatranus*; 56–57, 64 – *A. warchalowskii*. 43–57 – эдеагусы; 58–64 – сперматеки. 43, 45, 47, 48, 50, 52, 54, 56 – вид снизу; 44, 46, 49, 51, 53, 55, 57 – вид сбоку.

Paratypes. Males are similar to the holotype but some of them have slightly pales legs; females are similar to the holotype but has less elongate body, protarsomere I noticeable narrower and more convex interspaces on elytra. Body length 1.62–1.8 mm. Spermatheca with wide and long vasculum having almost straight lateral margins and short apical part (Fig. 42).

Differential diagnosis. *Aphthonoides trusmadiensis* sp. n., having the narrow pronotum with the anterior setigerous pore on lateral margin distinctly protruding outwards and slightly rounded basal margin, belongs to the *beccarii* species-group and is most similar to *A. burckhardti* and *A. tambunanensis* sp. n. This new species differs

from *A. burckhardti* in dorsal side of body black, legs darkened and the longer aedeagus. *Aphthonoides trusmadiensis* sp. n. differs from *A. tambunanensis* sp. n. in the narrower aedeagus (6.1–6.5 times as long as wide) with the narrow triangular apex in dorsal view; in lateral view the aedeagus is slightly sinuate at apical third. In contrast, *A. tambunanensis* sp. n. has the wider aedeagus (5.2–5.3 times as long as wide) with the wide triangular apex in dorsal view and gently curved in lateral view. In addition, all these three species differ in the shape of the spermatheca (Figs 36, 41, 42). See also a key.

Distribution. Borneo (Sabah).

Etymology. The name of the new species refers to the type locality on mountain Trus Madi.

Aphthonoides warchalowskii Döberl, 2005
(Figs 56, 57, 64)

Material. Type material is not examined.

Differential diagnosis. Based on Döberl [2005] this species has the wide pronotum (2.45 times as wide as long) with lateral margins converging anteriorly and I guess it has to belong to the *laticollis* species-group. This species differs from others members of this group in punctures in elytral rows fading behind middle and in the shape of the aedeagus (Figs 56, 57). See also a key.

Distribution. The Philippines.

A preliminary key to species of the genus *Aphthonoides* from Indonesia, Malaysia and the Philippines

- 1(8). Pronotum wider, more than 1.45 times as wide as long, with lateral margins nearly straight, converging anteriorly (pronotum wider on base than on apex). Anterior setigerous pore on lateral margin of pronotum not or very slightly protruding outwards. Basal margin of pronotum rather strongly rounded with middle of pronotal base distinctly protruded: ratio of total pronotal length across middle to length at posterior corners level about 0.3. Antennae long (about 1.45 times shorter than body length). Body oval, usually less elongate. Protarsomere I of male not or very slightly enlarged. Dorsal side of body black *A. laticollis* species-group
- 2(3). Species from Sumatra and Peninsular Malaysia. Pronotum more than 1.5 times as wide as long with lateral margins somewhat more strongly converging anteriorly (1.25–1.35 times wider on base than on apex). Antennae and legs dark with slightly lighter tibiae, basal antennomeres IV–V yellow. Aedeagus narrow, slightly laterally compressed before apex in dorsal view and slightly wavy before apex in lateral view (Figs 52, 53). Body length 1.4–1.75 mm *A. laticollis*
- 3(2). Species from Borneo and Philippines. Pronotum 1.45–1.5 times as wide as long with lateral margins somewhat less strongly converging anteriorly (1.1–1.25 times wider on base than on apex).
- 4(5). Species from the Philippines. Elytral surface punctate-striate with punctures fading behind middle. Dorsum piceous, antennae and legs yellow brown, metafemora and labrum darkened. Aedeagus with rounded apex;

- weak curved in lateral view (Figs 56, 57). Body length 1.3 mm *A. warchalowskii*
- 5(4). Species from Borneo. Elytral surface punctate-striate with punctures distinct to apex.
 - 6(7). Antennae shorter (about 1.65 times shorter than body length). Anterior setigerous pore on lateral margin of pronotum slightly but distinctly protruding outwards. Basal margin of pronotum less rounded with middle of pronotal base weakly protruded: ratio of total pronotal length across middle to length at posterior corners level 0.25–0.27. Apical half of aedeagus almost straight in lateral view; apex triangular with pointed tip (Figs 23–25). Body length 1.37–1.43 mm *A. pseudosabahensis* sp. n.
 - 7(6). Antennae longer (about 1.45 times shorter than body length). Anterior setigerous pore on lateral margin of pronotum not protruding outwards. Basal margin of pronotum more rounded with middle of pronotal base distinctly protruded: ratio of total pronotal length across middle to length at posterior corners level 0.31–0.34. Aedeagus slightly laterally compressed in the middle in dorsal view and strongly wavy before apex in lateral view; apex rounded, with small tooth (Figs 26–28). Body length 1.4–1.56 mm *A. sabahensis*
 - 8(1). Pronotum narrower, 1.35 or less times as wide as long, with lateral margins straight or rounded, not converging anteriorly. Anterior setigerous pore on lateral margin of pronotum distinctly protruding outwards. Body usually more elongate. Basal margin of pronotum slightly rounded with middle of pronotal base weakly protruded: ratio of total pronotal length across middle to length at posterior corners level 0.2 (or less). Protarsomere I of male distinctly enlarged. Dorsal side of body black, dark brown or yellow *A. beccarii* species-group
 - 9(10). Lateral margins of pronotum distinctly diverging anteriorly. Antennae and legs dark, basal 4–5 antennomeres yellow. Pronotum long and narrow (1.1–1.15 times as wide as long and 1.5–1.6 times narrower than elytra at level of humeral calli), with sinuous lateral margins in dorsal view (Fig. 5). Protarsomere I moderately enlarged about as wide as protarsomere III. Body strongly elongate, 2.1–2.2 times as long a wide. Body length 1.5–1.8 mm. Aedeagus compressed before rounded apex, rather sharply bent in middle, with indistinct narrow longitudinal impression in apical part on underside (Figs 20–22, 50, 51) *A. fulmeki*
 - 10(11). Lateral margins of pronotum straight or slightly rounded, not diverging anteriorly, broadest usually in middle. Pronotum somewhat shorter, 1.2–1.3 times as wide as long. Species from Sumatra and Borneo.
 - 11(14). Elytral surface punctate-striate with punctures fading behind middle.
 - 12(13). Pronotum 1.3 times as wide as long with lateral margins straight and subparallel. Dorsal side of body black, antennae and legs yellow; labrum and metafemora brownish. Protarsomere I of male not enlarged. Aedeagus distinctly widened before pointed apex (Figs 54, 55). Body length 1.4 mm *A. sumatranus*

- 13(12). Pronotum about 1.35 times as wide as long, with lateral margins slightly rounded, broadest in middle. Dorsal side of body piceous to blackish, labrum, antennae and legs yellow, metafemora piceous with apex light (Fig. 1). Protarsomere I of male slightly enlarged. Aedeagus with almost parallel sides, very slightly widened before pointed apex (Figs 11–13, 45, 46). Body length 1.45–1.65 mm *A. bergeali*
- 14(11). Elytral surface punctate-striate with punctures distinct to apex.
- 15(18). Aedeagus rather sharply bent in middle.
- 16(17). Aedeagus compressed before very widely rounded (sometimes almost blunted) apex with wavy lateral margins in dorsal view and tip not bent down in lateral view. Underside of aedeagus with not quite distinct, rather wide longitudinal impression in apical half (Figs 43, 44). Pronotum 1.21–1.3 times as wide as long with almost straight or very slightly rounded lateral margins. Protarsomere I slightly enlarged, about 1.2–1.25 times narrower than protarsomere III. Dorsal side of body piceous to black; antennae and legs brown with 5–7 apical antennomeres, basal half of femora and sometimes partly tibiae darkened. Body length 1.35–1.5 mm *A. beccarii*
- 17(16). Aedeagus with straight margins before triangular apex bearing distinct, sharp tooth in dorsal view and with hook-shaped tip bent down in lateral view. Underside of aedeagus with distinct, deep lanceolate longitudinal impression in apical half (Figs 14–16). Protarsomere I about as wide as protarsomere III. Pronotum 1.2–1.29 times as wide as long with almost straight lateral margins. Dorsal side of body black; antennae and legs brown with 5–6 apical antennomeres and claw tarsomere darkened. Body length 1.13–1.55 mm *A. bukittingiensis* **sp. n.**
- 18(15). Aedeagus gently bent in basal quarter. Protarsomere I enlarged, not narrower or slightly wider than protarsomere III. Pronotum with almost straight or very slightly rounded lateral margins. Species from Borneo. Three similar species distinguishable only by structure of aedeagus and spermatheca.
- 19(20). Dorsal side of body yellow-brown or dark brown to almost black, antennae and legs brown with 4–8 apical antennomeres and metafemora in variant degrees darkened (Figs 3, 4). Antennomere II less elongate and more swollen. Aedeagus shorter (about 4.6 times as long as wide), narrowed before extended apex with curved lateral margins in dorsal view (Figs 17–19, 47–49). Pronotum 1.21–1.28 times as wide as long. Vasculum of spermatheca narrow with sinuate lateral margins and long apical part (Figs 36, 60) *A. burckhardti*
- 20(19). Dorsal side of body black, legs darkened with pale joints. Aedeagus longer.
- 21(22). Antennae with yellow basal antennomeres, darkened from antennomere V; legs strongly darkened with pale joints (Fig. 10). Antennomere II more elongate and somewhat less swollen. Aedeagus (Figs 32–34) somewhat narrower, 6.1–6.5 times as long as wide, with almost straight lateral margins and narrow triangular apex in dorsal view. In lateral view aedeagus slightly sinuate in apical third. Pronotum 1.23–1.25 times as wide as long, with lateral margins not or very slightly notched before posterior corners. Vasculum of spermatheca wide with almost straight lateral margins and short apical part (Fig. 42). Body length 1.65–1.97 mm *A. trusmadiensis* **sp. n.**
- 22(21). Antennae with yellow basal antennomeres, blackened from antennomere III; legs dark brown to brown with pale joints (Fig. 9). Antennomere II less elongate and somewhat more swollen. Aedeagus (Figs 29–31) somewhat wider, 5.2–5.3 times as long as wide, with very weak curved lateral margins and wide triangular apex in dorsal view. In lateral view aedeagus gently curved. Pronotum 1.12–1.19 times as wide as long, with lateral margins noticeably notched before posterior corners. Vasculum of spermatheca wide with slightly curved lateral margins and longer apical part (Fig. 41). Body length 1.62–1.8 mm *A. tambunanensis* **sp. n.**

The presented key can be used only as a preliminary. It is necessary to study the type material of all known species, which may require making certain adjustments to this key. Moreover, I believe that it covers not all existing species. At present, when many previously difficult of approach areas of Malaysia and Indonesia became available to researchers, it should be expected finding many new species of this genus.

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