

Contribution to the knowledge of the genus *Agapanthia* Audinet-Serville, 1835 (Coleoptera: Cerambycidae: Lamiinae) from the Near East and Transcaucasia

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Abstract. Two new species of the genus *Agapanthia* Audinet-Serville, 1835, *A. (Epopetes) papaverina* sp. n. (Turkey, Tunceli Province) and *A. (Epopetes) griseocaudata* sp. n. (Azerbaijan, Baku environs and Mugan steppe), are described. These new species are similar to *A. villosoviridescens* (DeGeer, 1775), *A. lederi* Ganglbauer, 1884 and *A. simplicicornis* Reitter, 1898. Their diagnostic characters of the external morphology and endophallus structure, and host plants are given. The new monotypic subgenus *Mirabilinia* subgen. n. is described (type species: *Agapanthia hirsuticornis* Holzschuh, 1975). It differs from all other subgenera in the puncturation and pubescence of body, the shape of pronotum and the structure of aedeagus. Some taxonomic comments on the *lederi* species-group and *A. villosoviridescens* are given.

Key words: Coleoptera, Cerambycidae, *Agapanthia*, new taxa, Near East, Transcaucasia, Turkey, Azerbaijan, Iran.

К познанию жуков-усачей рода *Agapanthia* Audinet-Serville, 1835 (Coleoptera: Cerambycidae: Lamiinae) Ближнего Востока и Закавказья

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Резюме. Описаны два новых вида рода *Agapanthia* Audinet-Serville, 1835: *A. (Epopetes) papaverina* sp. n. из Восточной Турции и *A. (Epopetes) griseocaudata* sp. n. из Центрального Азербайджана. Приведены отличительные признаки внешней морфологии и полового аппарата самцов и данные по биологии и кормовым растениям. Для *Agapanthia hirsuticornis* Holzschuh, 1975 установлен новый подрод *Mirabilinia* subgen. n., который отличается от всех других подродов пунктировкой тела и его опушением, формой переднеспинки и гениталиями самца.

Ключевые слова: Coleoptera, Cerambycidae, *Agapanthia*, новые таксоны, Ближний Восток, Закавказье, Турция, Азербайджан, Иран.

During the author's field studies in the Middle East and Transcaucasia in 2009–2013, rich material on longhorned beetles of the genus *Agapanthia* Audinet-Serville, 1835 was collected, including series of two new species similar to *A. lederi* Ganglbauer, 1884, *A. simplicicornis* Reitter, 1898 and *A. villosoviridescens* (DeGeer, 1775). In addition, some specimens of these new taxa were found in the collection of the Zoological Museum of Moscow State University among the *A. villosoviridescens* series. Finally, representative material on *Agapanthia hirsuticornis* Holzschuh, 1975 collected by the author in several regions of Iran, allowed to clarify a taxonomic position of this unusual species in the system of the genus.

Material and methods

The research is based on the examination of material from the following private collections and institutes:

CDK – author's collection (Rostov-on-Don, Russia);

ZMMU – collection of the Zoological Museum of Moscow State University (Moscow, Russia);

HNHM – collection of Natural History Museum of Hungary (Budapest, Hungary);

MNHN – Muséum national d'Histoire naturelle (Paris, France).

Genus *Agapanthia* Audinet-Serville, 1835

Subgenus *Epopetes* Gistel, 1857

Agapanthia (Epopetes) papaverina sp. n.

(Figs 1–3, 13, 17, 19, 28, 29)

Material. Holotype, ♂ (CDK): Turkey, Tunceli Prov., NW Pülümür, near Ardiçlı vill., 39.49627N / 39.82539E, on Papaver sp., 8–9.06.2010 (D.G. Kasatkin). Paratypes: 2♂, 11♀ (CDK), same data as in holotype.

Description. Body length in male 13–14.5 mm, in female 14.5–18 mm. Head coarsely and densely punctured. Male antennae long, cuticle of antennomeres 3–12 reddish, with darkened apical part; pubescent with white or yellowish fine hairs and long erect black setae; hair brush weak on antennomeres 3–4; antennomere 3, 1.4–1.5 times as long as antennomere 4. Pronotum transverse, conical, moderately coarse and densely punctured, punctures on disc largest and coarsest. Longitudinal hair stripe not wide, yellow. Elytra 4.76–5.15 or 5.2–5.73 times as long as pronotum in males and females, respectively; coarsely and densely punctured, sparsely pubescent, yellow, without hidden sculpture, with long erect setae in basal half and shorter erect hairs in apical half; grey lateral stripe indistinct, slightly visible only in not shabby specimens in apical third of elytra as small area of light-gray hairs with blurred borders. First protarsomere with darkened apex and apical edge,

2nd one darkened by about 70%; 3rd protarsomere blackened by about 70%. Mesotarsomeres 1–2 narrowly darkened apically.

Male genitalia (Figs 13, 17, 19, 28, 29). Lateral lobes almost straight, narrow and elongate, rounded apically; male tergite VIII narrow apically, emarginated. Ventral plate of penis almost parallel-sided, apically smoothly sharpened. Apical plates of endophallus small, with micro-hooks, but without distinctly sclerotized base, basally not separated.

Differential diagnosis. The new species differs from *A. schmidti* Holzschuh, 1975 (Fig. 12) in the structure of elytral pubescence covering the smaller elytral punctures and the coloration of tarsomeres; from *A. kindermanni* Pic, 1905 (Fig. 10) the new species strongly differs in the pronotal puncturation, the longer elytra, the less developed hairbrush on antennomere 3, the sparse pubescence of the body and other coloration of antennal cuticle. From *A. verecunda* Chevrolat, 1882 (Fig. 9), *A. papaverina* sp. n. differs by the pronotal puncturation and elytral pubescence, the lighter coloration of antennomere cuticle, the darker tarsal pubescence. The new species differs from another East Anatolian species, *A. simplicicornis* Reitter, 1898 (Fig. 11) by the sparser and the less bright elytral pubescence, the denser puncturation of elytra and pronotum, while from *A. lederi* Ganglbauer, 1884 (Fig. 4) by the bright reddish cuticle in the basal part of all antennomeres, the almost invisible lateral grey stripe, the sparser punctures of scape, the shape of apical phallomere, penis and lateral lobes (Figs 14, 22, 23, 25, 30).

We could not find the syntypes of *Agapanthia subflavida* Pic, 1903 in the Pic's collection (MNHN), but, according to the original description, this species is not similar to *A. papaverina* sp. n. and can be close to, or even synonymous with *A. lateralis* Ganglbauer, 1884.

Bionomics. The new species inhabits subalpine landscapes (Fig. 78). Females were collected during oviposition in stems of Papaver sp. (Fig. 79).

Distribution. The species is known only from Eastern Turkey, Tunceli Province.

Etymology. The name “papaverina” comes from the Latin name of the host plant, Papaver.

Agapanthia (Epopetes) griseocaudata sp. n.
(Figs 5–7, 15, 18, 20, 26, 27)

Material. Holotype, ♂ (CDK): Azerbaijan, Absheron Distr., near Perkeshkul vill., on *Silybum* sp., 28.04.2013 (D.G. Kasatkin). Paratypes: 3♂, 2♀ (CDK), same data as in holotype; 1♂ (ZMMU), “Transcauc., Arax or”; 1♀ (ZMMU), “Transcauc. ost., fl. Arax, Sabir-Adad [now Sabirabad, near Saatly], 31.V ”; 1♂, 1♀ (ZMMU), “prov. Bakensis, Fl. Kura, Karabogly, 4.V.932, A. Menstschikov. ex coll. Menstschikov”; 2♂, 1♀ (ZMMU), “Transcauc., step. Mugan, Dzhafarchan [obvious Dzhafarkhan vill., Saatly Distr.], 19.V.933, E. Lukijanovich”, “*Agapanthia villosoviridescens*, N. Plavilstshikov det.”.

Description. Body length in male 15–16 mm, in female 14.5–21 mm. Head coarsely and densely punctured. Antennae long, reaching elytral apex by antennomere 7 or 10 in male and female, respectively. Cuticle of antennomere 3 black or very dark brown, followed by reddish antennomeres with darkened apical part, pubescent with white hairs often hiding cuticle and long erect black setae; hair brush indistinct. Pronotum transverse, moderately coarsely and densely punctured, with three longitudinal stripes of bright yellow hairs and long erect setae. Elytra 5.35 or 4.9 times as long as pronotum in males and females, respectively, coarsely and densely punctured, sparsely pubescent, yellow or pale-yellow, almost without hidden sculpture, with long erect setae at base; grey

lateral stripe distinct only in apical part of elytra, in females more developed than in males. Tarsal pubescence grey, 3rd protarsomere darkened in apical half, 2nd one darkened in apical quarter or only at angles; 3rd protarsomere of female lighter than in male.

Male genitalia (Figs 15, 18, 20, 26, 27). Lateral lobes narrowed apically, slightly curved; tergite VIII of male conical, emarginated or broadly rounded apically. Dorsal plate of penis evenly narrowed towards apex, strongly sharpened apically; ventral plate narrowed in last third, strongly pointed at apex. Apical phallomere represented by not large bulb with conical apical swelling and rounded dorso-apical tubercle; apical plates of endophallus small, not separated, weakly sclerotized; apical microtrichial field wide, triangular.

Differential diagnosis. This new species is similar to *A. lederi* and *A. villosoviridescens* (DeGeer, 1775); it differs from *A. lederi* (Figs 4, 14, 23, 30, 48) by the very short lateral grey stripe, the more developed and bright yellow elytral pubescence, the finer elytral puncturation, the shape of protarsomere 3, the morphology of male genitalia (including BLV-sclerites, penis, tegmen, apical phallomere). From the widely distributed *A. villosoviridescens* (Figs 8, 16, 21, 24, 49), *A. griseocaudata* sp. n. differs by the presence of lateral stripe, the more patterned elytral cover, the sparser elytral puncturation, the finer pronotal puncturation, and details of the structure of endophallus (Figs 15, 16, 18, 20, 24, 49): large apical plates with sclerotized base, large apical bulb, shorter medial tube. *Agapanthia griseocaudata* sp. n. differs from *A. papaverina* sp. n. by the more developed lateral stripe in the apical part of elytra, the sharpened apex of penis, the shape of lateral lobes and apical phallomere.

Notes. The Caucasian, Iranian and Turkish taxa considered by different authors under the names *A. lederi*, *A. villosoviridescens*, *A. subnigra* Pic, 1890 and *A. subchalybaea* Reitter, 1898 require detailed revision. At present it remains unclear, which taxa are hiding in the literature under the name “*lederi*” both in the North Caucasus and Transcaucasia [Danilevsky, 2018a]. So, in the North Caucasus, *A. lederi* is often mixed with *A. villosoviridescens* [Danilevsky, 2018a, b], the widespread species in this region according to Plavilstshikov [1968]. This confusion is apparently due to the fact that one of the main differences between *A. villosoviridescens* and *A. lederi*, which is the coloration of the cuticle in the basal part of antennomeres (dark or light), shows a wide range of variability. For example, almost all specimens of *A. “lederi”* from foothills and subalpine zone of the North Caucasus examined by the author in fact belong to *A. villosoviridescens*. Such distinguishing characters as a structure of body pubescence and a presence or absence of grey lateral strip on the elytra is impossible to use for shabby specimens. In this case, only structure of endophallus can be used to distinguish *A. villosoviridescens* from the “*lederi*” species-group. In addition, the status of the populations of *A. villosoviridescens* from the Asian part of Turkey remains unclear.

Bionomics. The new species inhabits steppe landscapes (Fig. 77). Some beetles were collected on *Silybum* sp.

Distribution. The species is distributed in the plains of Central and East Azerbaijan.

Etymology. The name “griseocaudata” refers to the main character of the new species, namely a short grey stripe on the elytral apex.

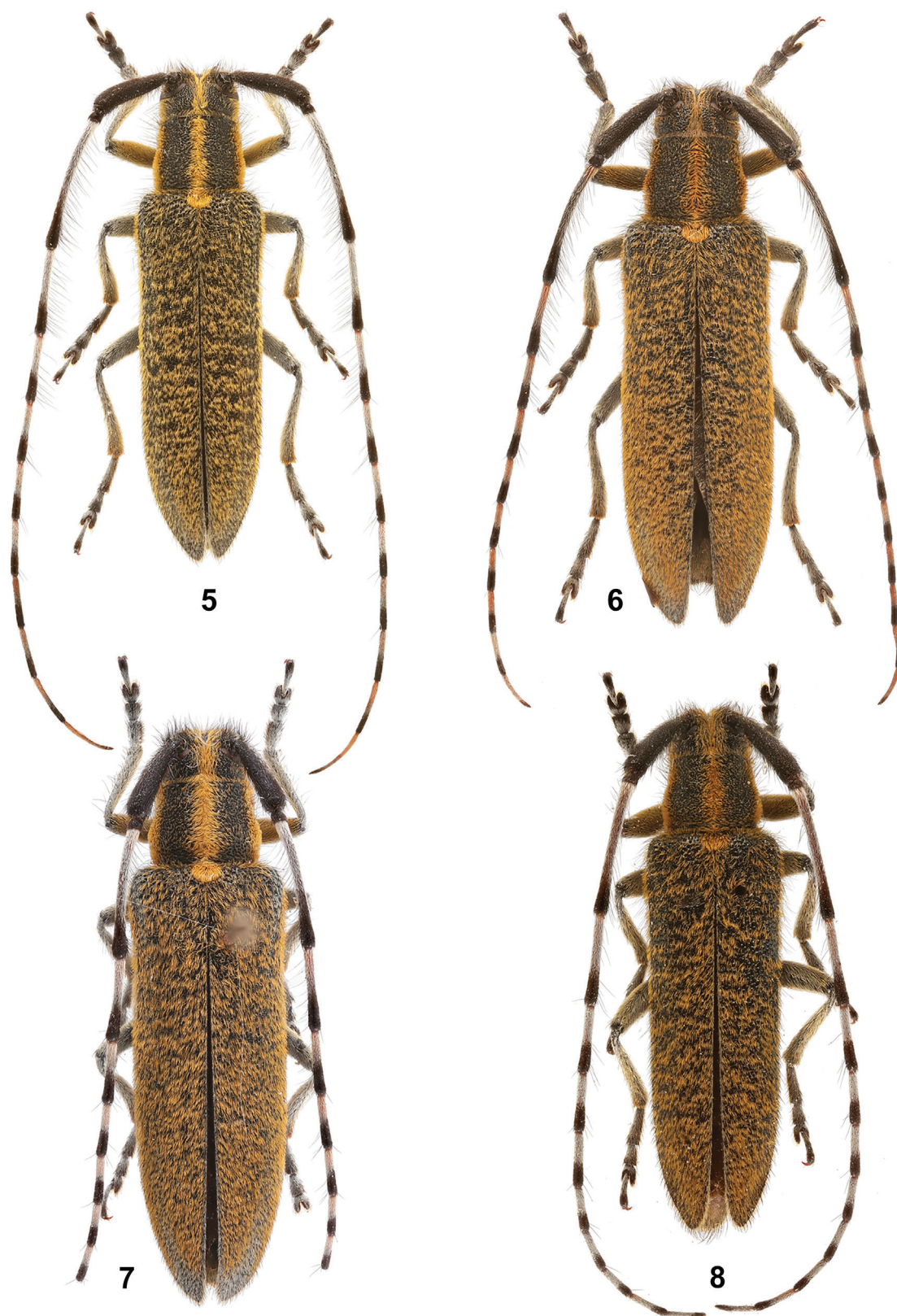


Figs 1–4. *Agapanthia* Serville, 1835, habitus, dorsal view.

1–3 – *A. (Epopetes) papaverina* sp. n.: 1 – male, holotype, 2–3 – females, paratypes; 4 – *A. (Epopetes) lederi* Ganglbauer, 1884, male (paralectotype of *A. helianthi* Plavilstshikov, 1935).

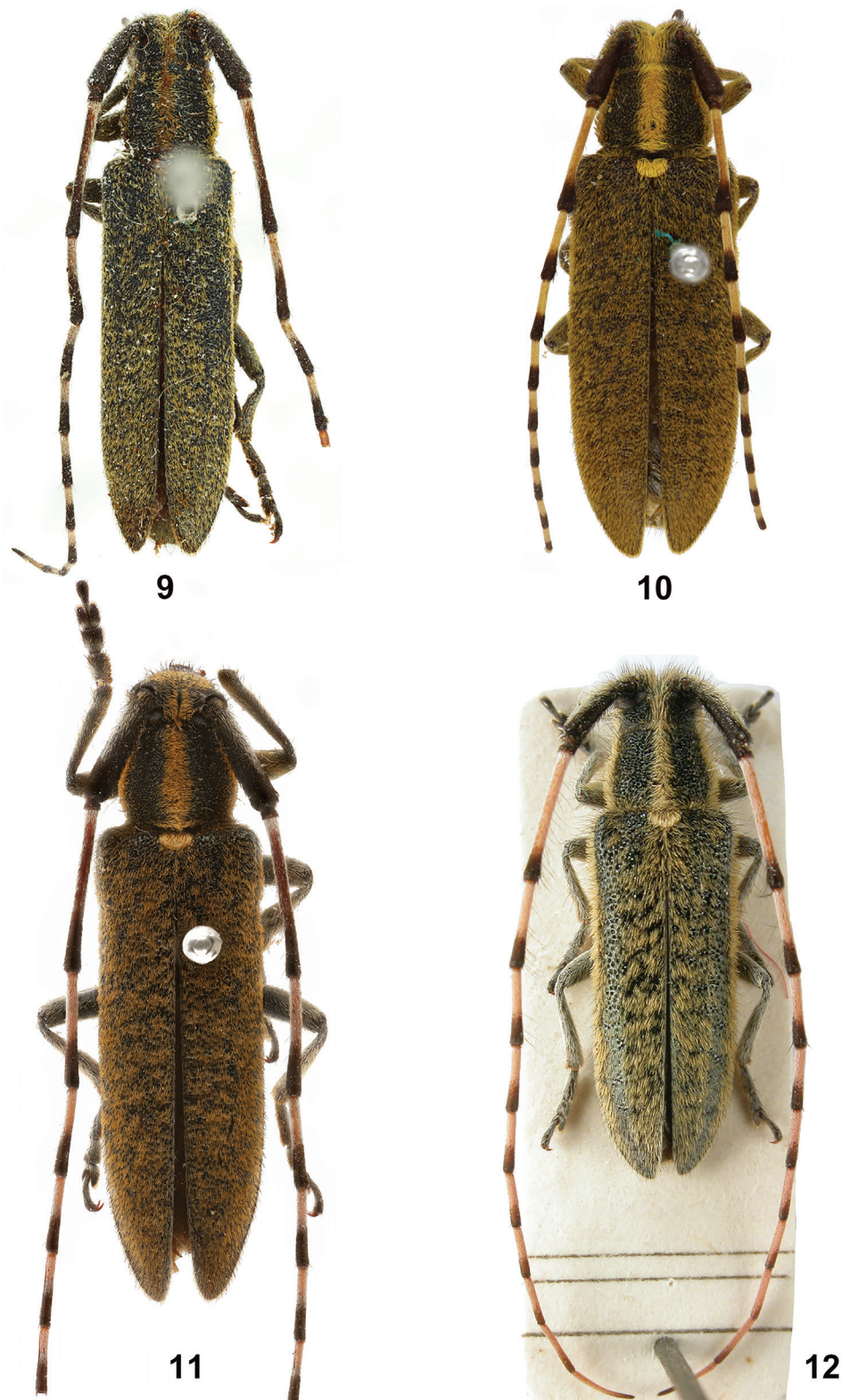
Рис. 1–4. *Agapanthia* Serville, 1835, внешний вид, дорсально.

1–3 – *A. (Epopetes) papaverina* sp. n.: 1 – самец, голотип, 2–3 – самки, паратипы; 4 – *A. (Epopetes) lederi* Ganglbauer, 1884, самец (паралектотип *A. helianthi* Plavilstshikov, 1935).



Figs 5–8. *Agapanthia* Serville, 1835, habitus, dorsal view.
 5–7 – *A. (Epopetes) griseocaudata* sp. n.: 5 – male, holotype, 6 – female, paratype (Perkeshkul, Azerbaijan), 7 – female, paratype (Karabogly, Azerbaijan);
 8 – *A. (Epopetes) villosoviridescens* (DeGeer, 1775), male (Ryazan Region, Russia).

Рис. 5–8. *Agapanthia* Serville, 1835, внешний вид, дорсально.
 5–7 – *A. (Epopetes) griseocaudata* sp. n.: 5 – самец, голотип, 6 – самка, паратип (Перкешкюль, Азербайджан), 7 – самка, паратип (Карабоглы, Азербайджан); 8 – *A. (Epopetes) villosoviridescens* (DeGeer, 1775), самец (Рязанская область, Россия).



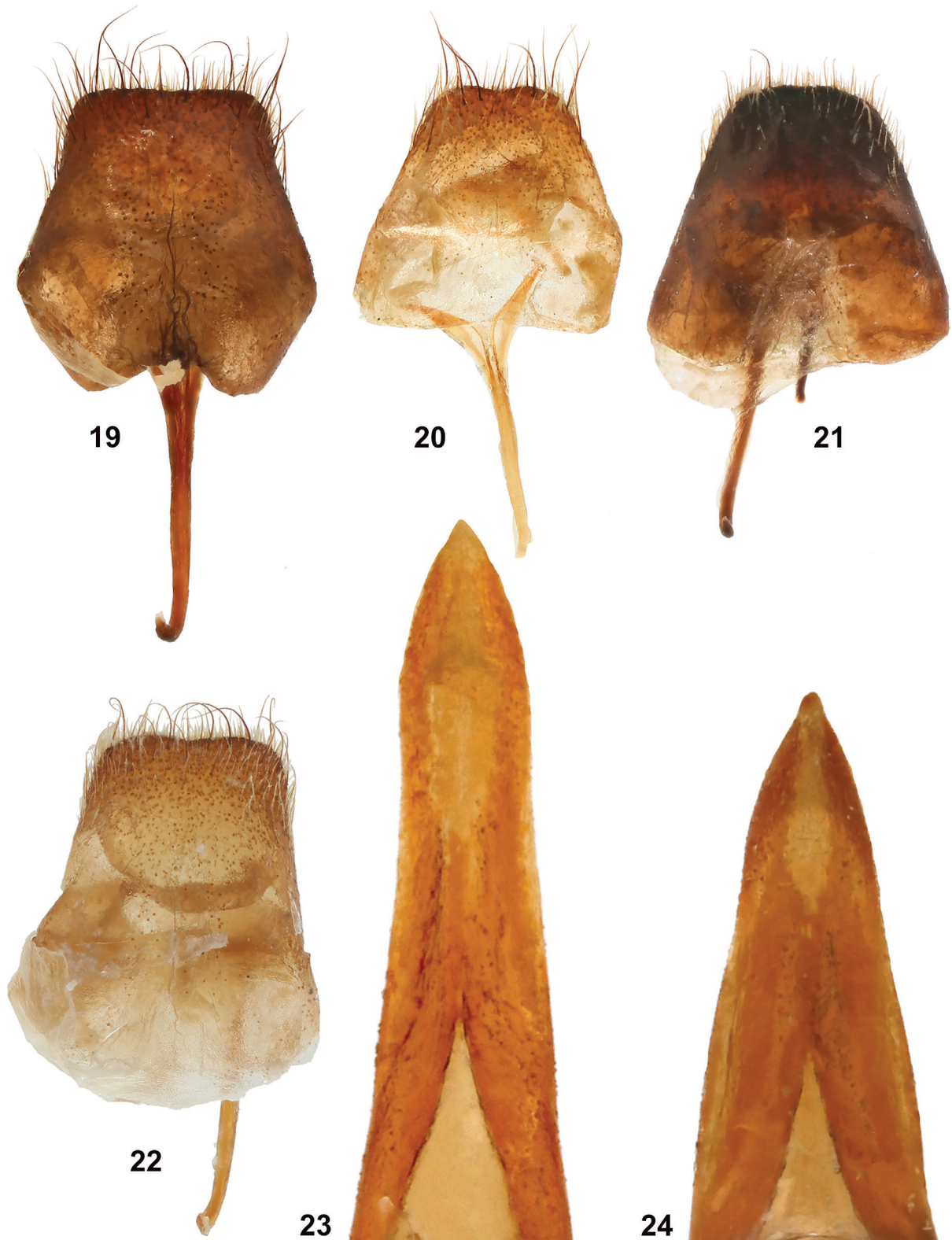
Figs 9–12. *Agapanthia* Serville, 1835, habitus, dorsal view.
 9 – *A. (Eroptes) verecunda* Chevrolat, 1882, male, lectotype (photo by A. Taghavian); 10 – *A. (Eroptes) kindermanni* Pic, 1905, male, lectotype (photo by A. Taghavian); 11 – *A. (Eroptes) simplicicornis* Reitter, 1898, male, lectotype; 12 – *A. (Eroptes) schmidti* Holzschuh, 1975, male, holotype (photo by L. Dembický).

Рис. 9–12. *Agapanthia* Serville, 1835, внешний вид, дорсально.
 9 – *A. (Eroptes) verecunda* Chevrolat, 1882, самец, лектотип (фото А. Тагвяян); 10 – *A. (Eroptes) kindermanni* Pic, 1905, самец, лектотип (фото А. Тагвяян); 11 – *A. (Eroptes) simplicicornis* Reitter, 1898, самец, лектотип; 12 – *A. (Eroptes) schmidti* Holzschuh, 1975, самец, голотип (фото Л. Дембицкого).

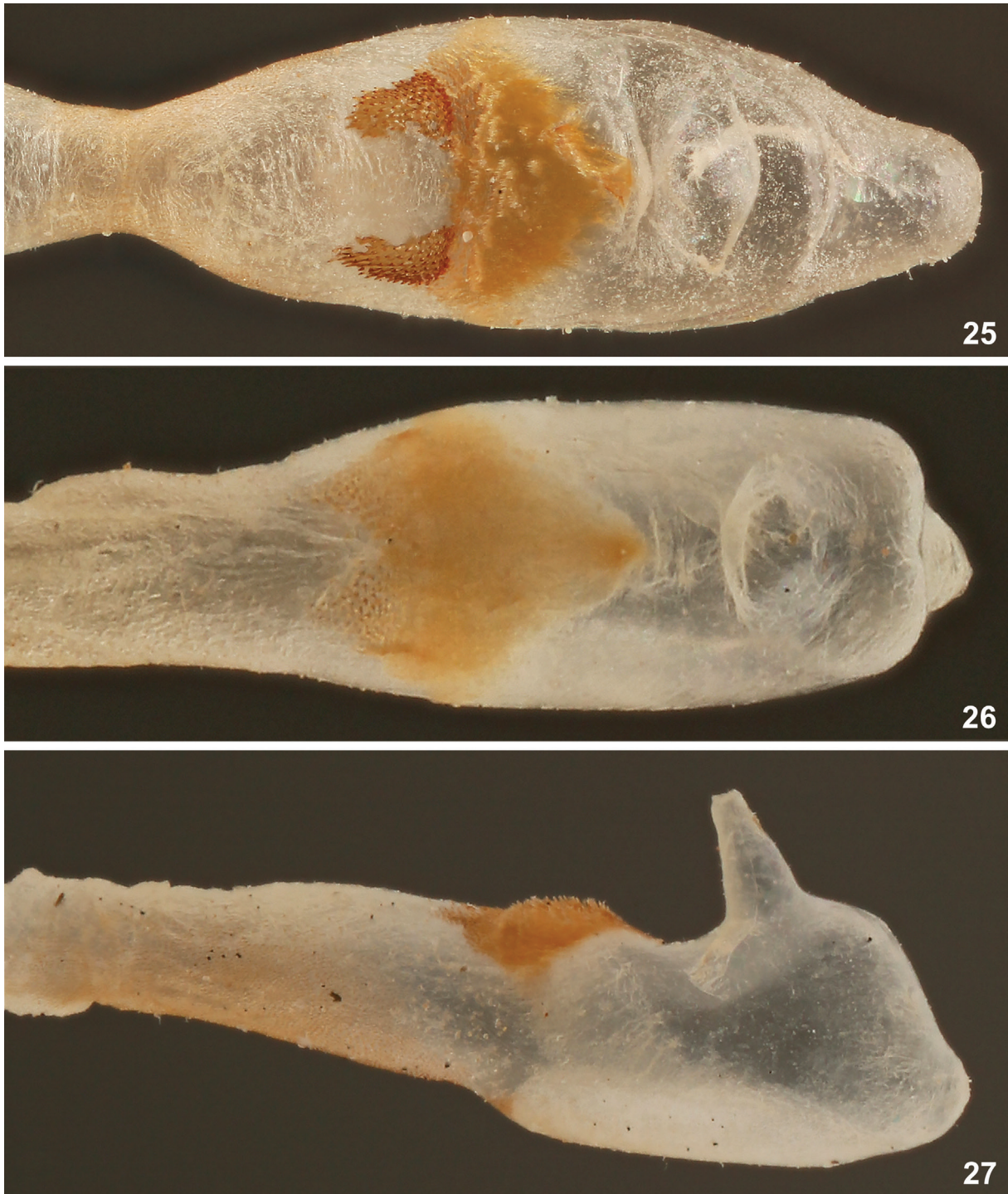


Figs 13–18. *Agapanthia* Serville, 1835, male genitalia.
 13, 17 – *A. (Epoptes) papaverina* sp. n.; 14 – *A. (Epoptes) lederi* Ganglbauer, 1884 (paralectotype of *A. helianthi* Plavilstshikov, 1935); 15, 18 – *A. (Epoptes) griseocaudata* sp. n.; 16 – *A. (Epoptes) villosoviridescens* (DeGeer, 1775). 13–16 – lateral lobes; 17–18 – ventral side of penis.

Рис. 13–18. *Agapanthia* Serville, 1835, гениталии самцов.
 13, 17 – *A. (Epoptes) papaverina* sp. n.; 14 – *A. (Epoptes) lederi* Ganglbauer, 1884 (паралектотип *A. helianthi* Plavilstshikov, 1935); 15, 18 – *A. (Epoptes) griseocaudata* sp. n.; 16 – *A. (Epoptes) villosoviridescens* (DeGeer, 1775). 13–16 – парамеры; 17–18 – вентральная сторона пениса.



Figs 19–24. *Agapanthia* Serville, 1835, male genitalia.
 19 – *A. (Epopetes) papaverina* sp. n.; 20 – *A. (Epopetes) griseocaudata* sp. n.; 21, 24 – *A. (Epopetes) villosoviridescens* (DeGeer, 1775); 22–23 – *A. lederi* Ganglbauer, 1884 (paralectotype of *A. helianthi* Plavilstshikov, 1935). 19–22 – tergite VIII; 23–24 – ventral side of penis.
 Рис. 19–24. *Agapanthia* Serville, 1835, гениталии самцов.
 19 – *A. (Epopetes) papaverina* sp. n.; 20 – *A. (Epopetes) griseocaudata* sp. n.; 21, 24 – *A. (Epopetes) villosoviridescens* (DeGeer, 1775); 22–23 – *A. (Epopetes) lederi* Ganglbauer, 1884 (паралектотип *A. helianthi* Plavilstshikov, 1935). 19–22 – тергит VIII; 23–24 – вентральная сторона пениса.



Figs 25–27. *Agapanthia* Serville, 1835, apical phallomere.

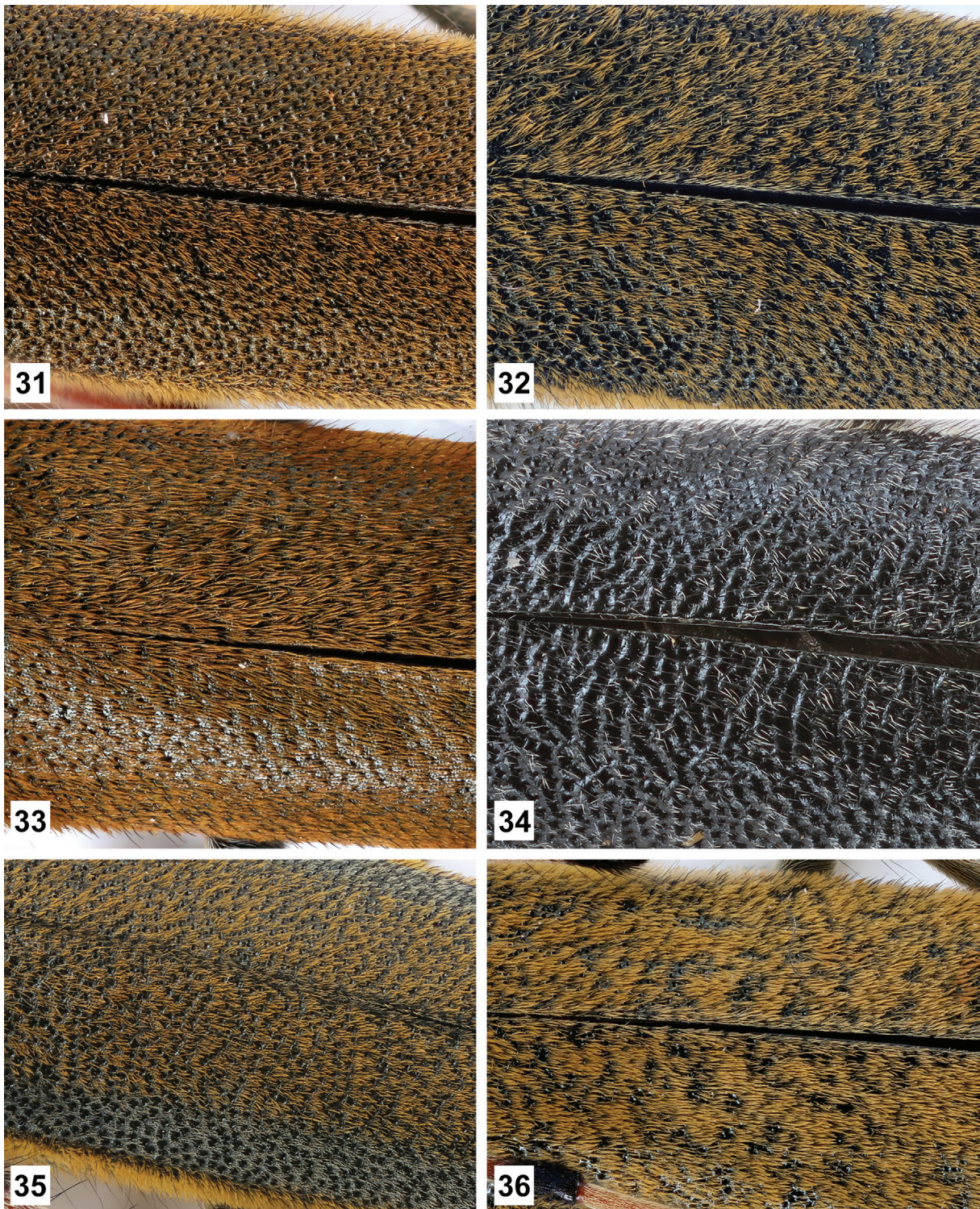
25 – *A. (Epoptes) lederi* Ganglbauer, 1884 (paralectotype of *A. helianthi* Plavilstshikov, 1935), dorsal view; 26–27 – *A. (Epoptes) griseocaudata* sp. n.: 26 – dorsal view, 27 – lateral view.

Рис. 25–27. *Agapanthia* Serville, 1835, апикальный фалломер.

25 – *A. (Epoptes) lederi* Ganglbauer, 1884 (paralectotype of *A. helianthi* Plavilstshikov, 1935), дорсально; 26–27 – *A. (Epoptes) griseocaudata* sp. n.: 26 – дорсально, 27 – латерально.



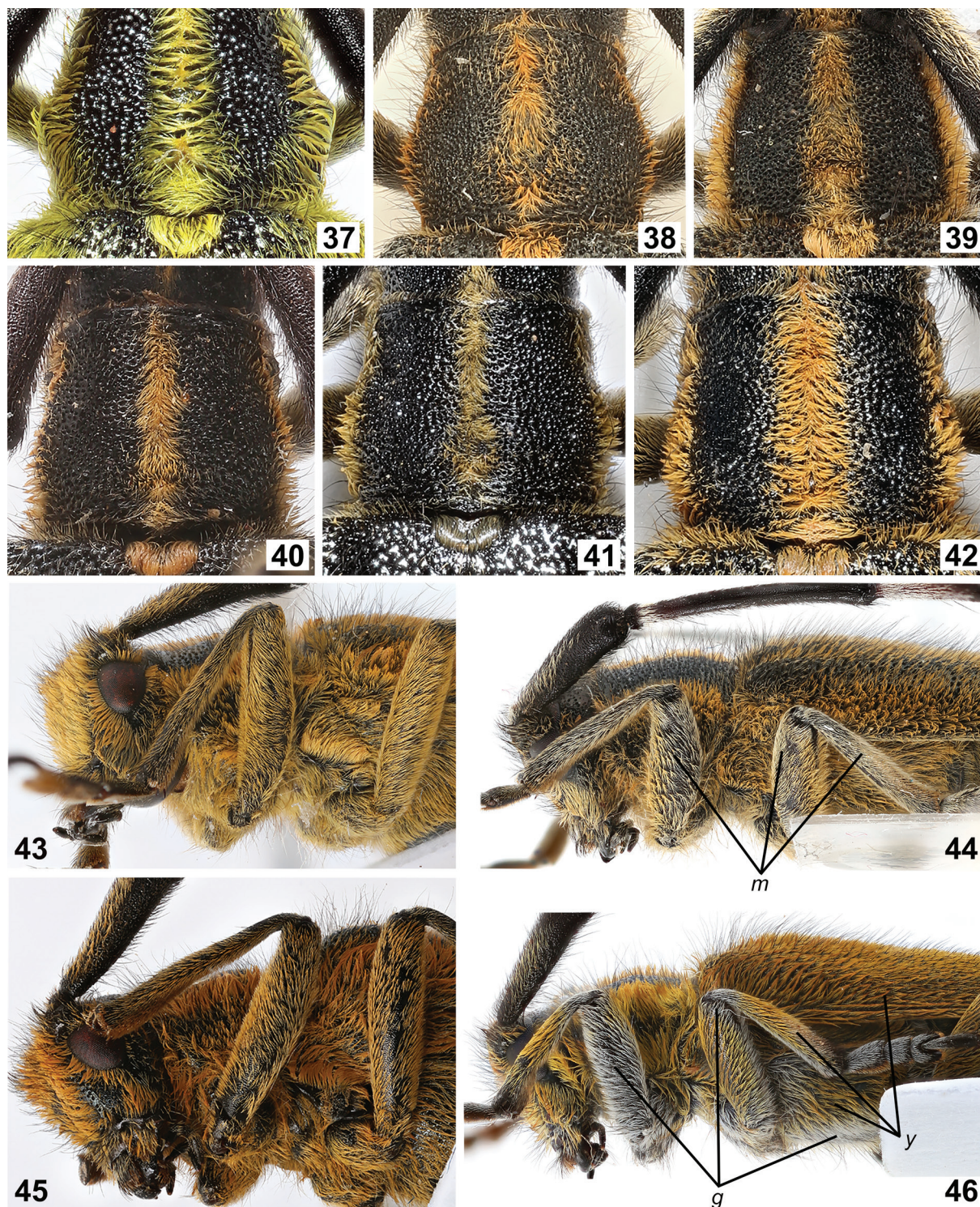
Figs 28–30. *Agapanthia* Serville, 1835, apical part of endophallus.
 28–29 – *A. (Eropetes) paraverina* sp. n.: 28 – dorsal view, 29 – lateral view; 30 – *A. (Eropetes) lederi* Ganglbauer, 1884 (paralectotype of *A. helianthi* Plavilstshikov, 1935), lateral view.
 Рис. 28–30. *Agapanthia* Serville, 1835, апикальная часть эндофаллуса.
 28–29 – *A. (Eropetes) paraverina* sp. n.: 28 – дорсально, 29 – латерально; 30 – *A. (Eropetes) lederi* Ganglbauer, 1884 (паралектотип *A. helianthi* Plavilstshikov, 1935), латерально.



Figs 31–36. *Agapanthia* Serville, 1835, elytral puncturation.

Рис. 31–36. *Agapanthia* Сервилле, 1835, пунктировка надкрылий.

31 – *A. (Epoptes) asphodeli* (Latreille, 1804); 32 – *A. (Epoptes) cynarae* (Germar, 1824); 33 – *A. (Mirabilinia) hirsuticornis* Holzschuh, 1975; 34 – *A. (Epoptes) lederi hodeki* Danilevsky, 2018; 35 – *A. (Epoptes) lateralis* Ganglbauer, 1884; 36 – *A. (Epoptes) persica* Semenov, 1893.



Figs 37–46. *Agapanthia* Serville, 1835, details of structure.

37, 46 – *A. (Mirabilinia) hirsuticornis* Holzschuh, 1975; 38 – *A. (Epoetes) lederi hodeki* Danilevsky, 2018; 39 – *A. (Epoetes) asphodeli* (Latreille, 1804); 40 – *A. (Epoetes) lederi* Ganglbauer, 1884 (paralectotype of *A. helianthi* Plavilstshikov, 1935); 41, 44 – *A. (Epoetes) cynarae* (Germar, 1824); 42 – *A. (Epoetes) villosoviridescens* (DeGeer, 1775); 43 – *A. (Epoetes) persica* Semenov, 1893; 45 – *A. (Epoetes) dahli walteri* Reitter, 1898. 37–42 – shape of pronotum; 43–46 – pubescence of the ventral side of body, *m* – mixed yellow-grey hairs, *g* – grey zone, *y* – yellow zone.

Рис. 37–46. *Agapanthia* Serville, 1835, детали строения.

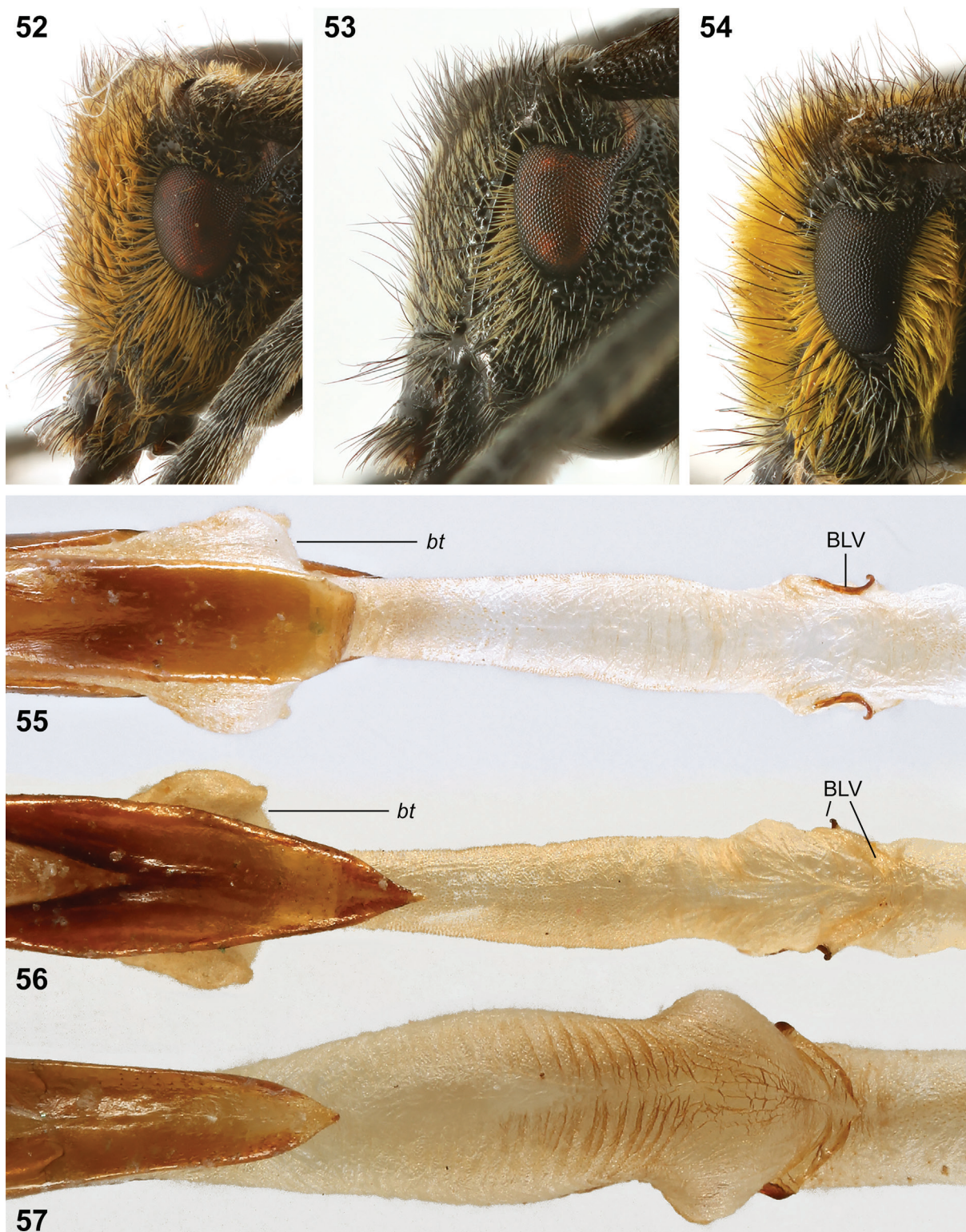
37, 46 – *A. (Mirabilinia) hirsuticornis* Holzschuh, 1975; 38 – *A. (Epoetes) lederi hodeki* Danilevsky, 2018; 39 – *A. (Epoetes) asphodeli* (Latreille, 1804); 40 – *A. (Epoetes) lederi* Ganglbauer, 1884 (паралектотип *A. helianthi* Плавильщикова, 1935); 41, 44 – *A. (Epoetes) cynarae* (Гермар, 1824); 42 – *A. (Epoetes) villosoviridescens* (ДеГейер, 1775); 43 – *A. (Epoetes) persica* Семенов, 1893; 45 – *A. (Epoetes) dahli walteri* Рейтер, 1898. 37–42 – форма переднеспинки; 43–46 – опушение вентральной стороны тела, *m* – смешанное желто-серое опушение, *g* – серая зона, *y* – желтая зона.



Figs 47–51. *Agapanthia* Serville, 1835, endophallus, lateral view.

Рис. 47–51. *Agapanthia* Serville, 1835, эндофаллус, латерально.

47 – *A. (Synthapsia) kirbyi* (Gyllenhal, 1817); 48 – *A. (Epoptes) lederi hodeki* Danilevsky, 2018; 49 – *A. (Epoptes) villosoviridescens* (DeGeer, 1775); 50 – *A. (Epoptes) derita* Kraatz, 1882; 51 – *A. (Epoptes) pustulifera* Pic, 1905.

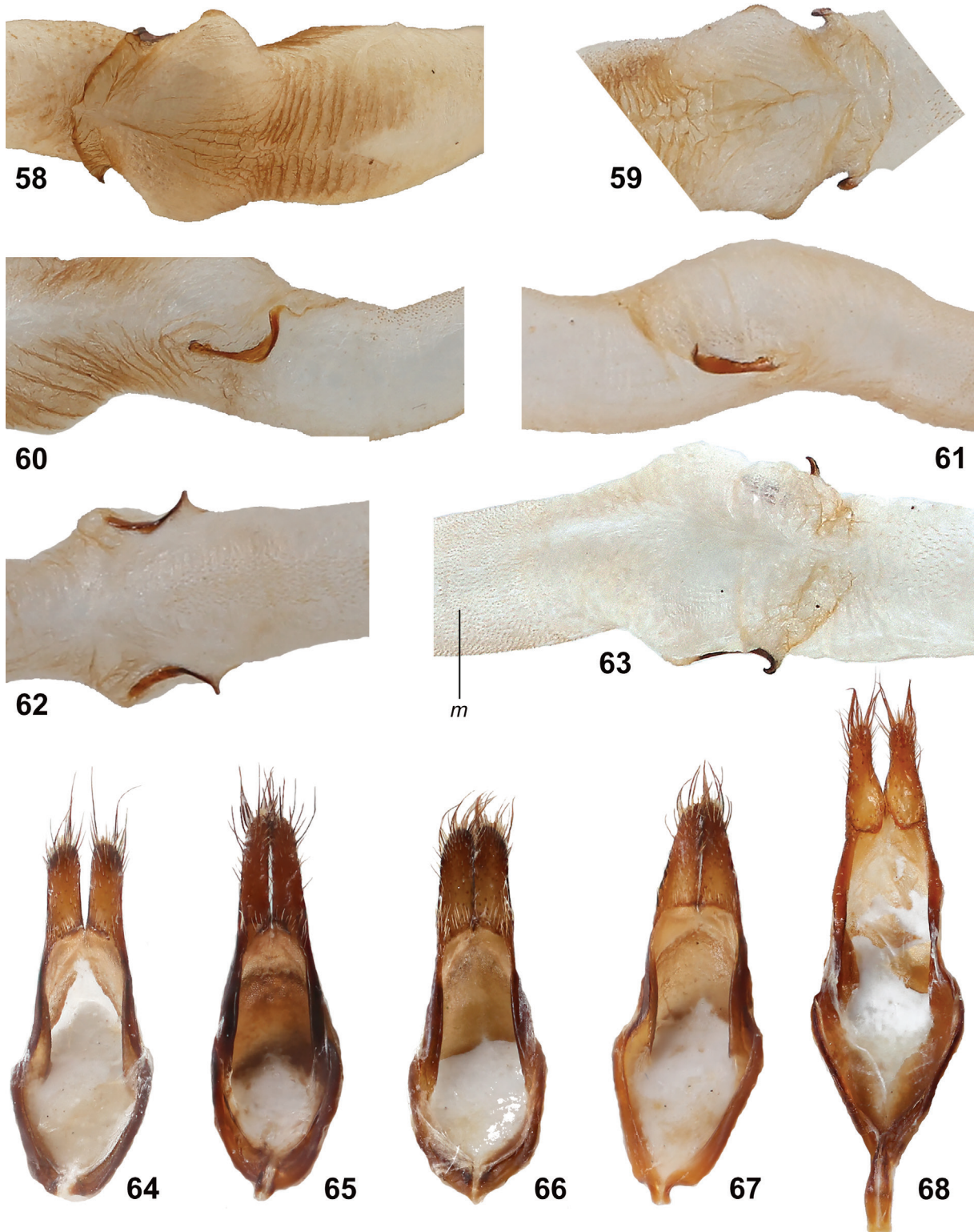


Figs 52–57. *Agapanthia* Serville, 1835, details of structure.

52 – *A. (Epopetes) dahli walteri* Reitter, 1898; 53 – *A. (Epopetes) lederi hodeki* Danilevsky, 2018; 54–56 – *A. (Mirabilinia) hirsuticornis* Holzschuh, 1975; 57 – *A. (Epopetes) pustulifera* Pic, 1905. 52–54 – eyes, lower lobe; 55–57 – basal phallomere: 55 – dorsal view, 56–57 – ventral view, *bt* – basal tubercle.

Рис. 52–57. *Agapanthia* Serville, 1835, детали строения.

52 – *A. (Epopetes) dahli walteri* Reitter, 1898; 53 – *A. (Epopetes) lederi hodeki* Danilevsky, 2018; 54–56 – *A. (Mirabilinia) hirsuticornis* Holzschuh, 1975; 57 – *A. (Epopetes) pustulifera* Pic, 1905. 52–54 – нижняя доля глаза; 55–57 – базальный фалломер: 55 – дорсально, 56–57 – вентрально, *bt* – базальные бугры.

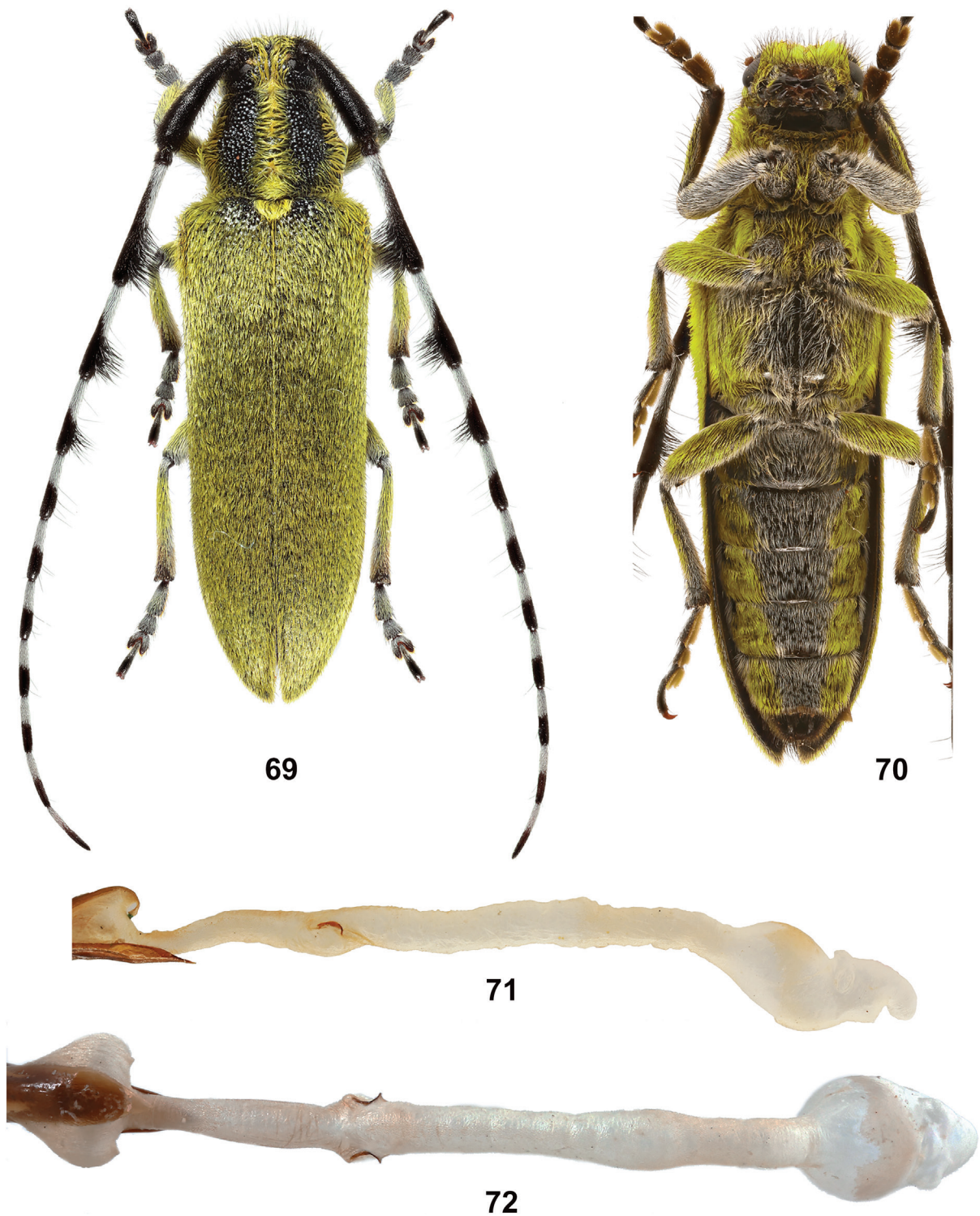


Figs 58–68. *Agapanthia* Serville, 1835, male genitalia.

58 – *A. (Eopotes) pustulifera* Pic, 1905; 59–60 – *A. (Eopotes) lateralis* Ganglbauer, 1884; 61–63, 68 – *A. (Mirabilinia) hirsuticornis* Holzschuh, 1975; 64 – *A. (Eopotes) angelicae* Reitter, 1898; 65 – *A. (Eopotes) lederi hodeki* Danilevsky, 2018; 66 – *A. (Eopotes) dahli nitidipennis* Holzschuh, 1984; 67 – *A. (Eopotes) zappii* Sama, 1987. 58–63 – BLV-sclerites: 58–59, 63 – ventral view, 60–61 – lateral view, 62 – dorsal view, *m* – microscales; 64–68 – tegmen.

Рис. 58–68. *Agapanthia* Serville, 1835, гениталии самцов.

58 – *A. (Eopotes) pustulifera* Pic, 1905; 59–60 – *A. (Eopotes) lateralis* Ganglbauer, 1884; 61–63, 68 – *A. (Mirabilinia) hirsuticornis* Holzschuh, 1975; 64 – *A. (Eopotes) angelicae* Reitter, 1898; 65 – *A. (Eopotes) lederi hodeki* Danilevsky, 2018; 66 – *A. (Eopotes) dahli nitidipennis* Holzschuh, 1984; 67 – *A. (Eopotes) zappii* Sama, 1987. 58–63 – BLV-склериты: 58–59, 63 – вентрально, 60–61 – латерально, 62 – дорсально, *m* – микрочешуйки; 64–68 – термен.



Figs 69–72. *Agapanthia (Mirabilinia) hirsuticornis* Holzschuh, 1975.

69–70 – habitus: 69 – dorsal view, 70 – ventral view; 71–72 – endophallus: 71 – lateral view, 72 – dorsal view.

Рис. 69–72. *Agapanthia (Mirabilinia) hirsuticornis* Holzschuh, 1975.

69–70 – внешний вид: 69 – дорсально, 70 – вентрально; 71–72 – эндофаллус: 71 – латерально, 72 – дорсально.



Figs 73–76. *Agapanthia (Homoblephara) maculicornis* (Gyllenhal, 1817).

73–75 – endophallus: 73 – lateral view, 74 – dorsal view of basal phallomere, 75 – dorsal view of apical phallomere; 76 – tegmen.

Рис. 73–76. *Agapanthia (Homoblephara) maculicornis* (Gyllenhal, 1817).

73–75 – эндофаллус: 73 – латерально, 74 – базальный фалломер, дорсально, 75 – апикальный фалломер, дорсально; 76 – тегмен.

Agapanthia (Mirabilinia) hirsuticornis Holzschuh, 1975
(Figs 37, 46, 54–56, 61–63, 68–72)

Material. 25♀, 27♂ (CDK), Iran, Elbourz Prov., near Gachsar vill., 31.05–2.06.2014, 28–30.05.2015 (D.G. Kasatkin); 4♀, 3♂ (CDK), Iran, Kermanshakh Prov., near Shamsheh vill., 20–22.05.2015 (D.G. Kasatkin).

Notes. Holzschuh [1975] has compared *Agapanthia hirsuticornis* with *A. (Synthapsia) kirbyi* (Gyllenhal, 1817) on the basis of densely pubescent elytra and very large hairbrush on antennae. Later, Pesarini and Sabbadini [2004] drew attention that this comparison is incorrect. These authors pointed to the unclear position of this species and did not include it in any of the subgenera that they have established. *Agapanthia hirsuticornis* was included to the subgenus *Epoptes* Gistel, 1857 in the Catalogue of Palaearctic Coleoptera [2010], but differences in the external morphology and the structure of endophallus between *A. hirsuticornis* and other members of *Epoptes* allow to erect a new subgenus for this species.

Subgenus *Mirabilinia* **subgen. n.**

Type species: *Agapanthia hirsuticornis* Holzschuh, 1975.

Differential diagnosis. This new subgenus is characterized by the dense and complete hair cover of elytra and underside of the body, and the very large and dense hairbrush on antennomeres 3 and 4; by the strongly marked zoned dichromatic main pubescence of the ventral side of the body and legs (Figs 43–46); lower lobes of eyes longer than wide, not quadrate (Figs 52–54); main pubescence of elytra creating a shaggy effect at humeri; elytral puncturation sparser and finer than in all other subgenera (Figs 31–36); lateral tubercles of pronotum very well-developed, but hidden in lateral hairs stripe (Fig. 37); lateral lobes club-like, strongly narrowed towards apex, distinct shorter than base of tegmen, manubrium of tegmen very long (Figs 64–68); male tergite VIII elongate; basal phallomere of endophallus with strong swelling and pair tubercles near distal foramen of penis (Figs 55, 56, 71, 72); basal tube with microscales, without rugosity on dorsal side (Figs 55–57, 63), sharply narrowed in proximal part; BLV-sclerites with very weakly sclerotized ventral plate; angle lateral and ventral plates forms strongly curved spine (Figs 58–63); apical bulb large, with indistinct dorsal microtrichial field, not separated into lower and upper zone; with three dorso-apical tubercles and one apical uncinat protuberance (Figs 48–51, 55, 56, 71, 72).

The new subgenus differs from all other subgenera by a combination of the following characters: strongly zonal coloration of the main pubescence of body and legs; sparse and more fine puncturation of the elytra; the elongated lower lobe of eyes; the structure of the endophallus, the clavate parameres; and the strongly elongated manubrium of tegmen. The lateral tubercles of pronotum are well-developed also in the subgenera *Agapanthoplia* Pesarini et Sabbadini, 2004, *Synthapsia* Pesarini et Sabbadini, 2004. In the subgenus *Epoptes* (Figs 38–42), lateral pronotal tubercles are well-developed only in *Agapanthia nigriiventris* C.O. Waterhouse, 1889. Based on the structure

of the endophallus *Mirabilinia* **subgen. n.** is the most close to the subgenus *Homoblephara* Pesarini et Sabbadini, 2004, but it differs from the latter in the structure of basal phallomere, in the shape of the lower lobe of the eyes, structures of antennae and body pubescence, and the puncturation of the elytra (Figs 73–76). From the subgenus *Synthapsia* the new subgenus differs in the structure of endophallus (Fig. 47), dichromatic main pubescence of body, the puncturation of the elytra and in the shape of the lower lobe of eyes.

Composition. Monotypic.

Etymology. Gender feminine; the name is derived from the Latin “mirabilis” (amazing).

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Figs 77–79. Habitats and host plant of new species of *Agapanthia* Serville, 1835.

77 – habitat of *A. (Epoptes) griseocaudata* **sp. n.**; 78–79 – habitat and host plant of *A. (Epoptes) papaverina* **sp. n.**

Рис. 77–79. Местобитания и кормовое растение новых видов *Agapanthia* Serville, 1835.

77 – местообитание *A. (Epoptes) griseocaudata* **sp. n.**; 78–79 – местообитание и кормовое растение *A. (Epoptes) papaverina* **sp. n.**

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