

New cockroaches of the subfamily Epilamprinae, with description of a new genus *Rhabdoblattella* (Dictyoptera: Blaberidae)

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Four new species of cockroaches, *Rhabdoblattella* (gen. n.) *cambodiensis* sp. n., *Rh. vietnamensis* sp. n., *Rh. delicata* sp. n. and *Rhabdoblatta rattanakiriensis* sp. n. (Blaberidae: Epilamprinae) are described.

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Introduction

For the male genitalia the author follows the terminology of Grandcolas (1996). The examined material is deposited in the Zoological Institute, Russian Academy of Sciences, St.Petersburg.

Family **BLABERIDAE** Brunner v. W., 1865

Subfamily **EPILAMPRINAE** Saussure, 1864

Genus ***Rhabdoblattella*** gen. n.

Type species: *Rhabdoblattella cambodiensis* sp. n.

Description. Sexual dimorphism not expressed, males and females with elytra and wings fully developed. Medium-sized cockroaches. General colour more or less yellowish brown; vertex and pronotum dotted with dark brown (Fig. 1); antennae unicolourous, yellowish brown; legs and ventral side of thorax and abdomen yellowish; tibiae laterally darkened; ventral surface of abdomen, tibiae and coxae with small dark dots. Surfaces smooth, impunctate (except costal areas of tegmina and a few punctures on vertex). Vertex freely exposed; eyes widely separated. Pronotum subpentagonal, margined, obtusely produced posteriorly. Elytra weakly sclerotized, with distinct veins (except costal area), rounded apically. Fore femora with two apical spines; posterior metatarsus very long, exceeding the remaining segments

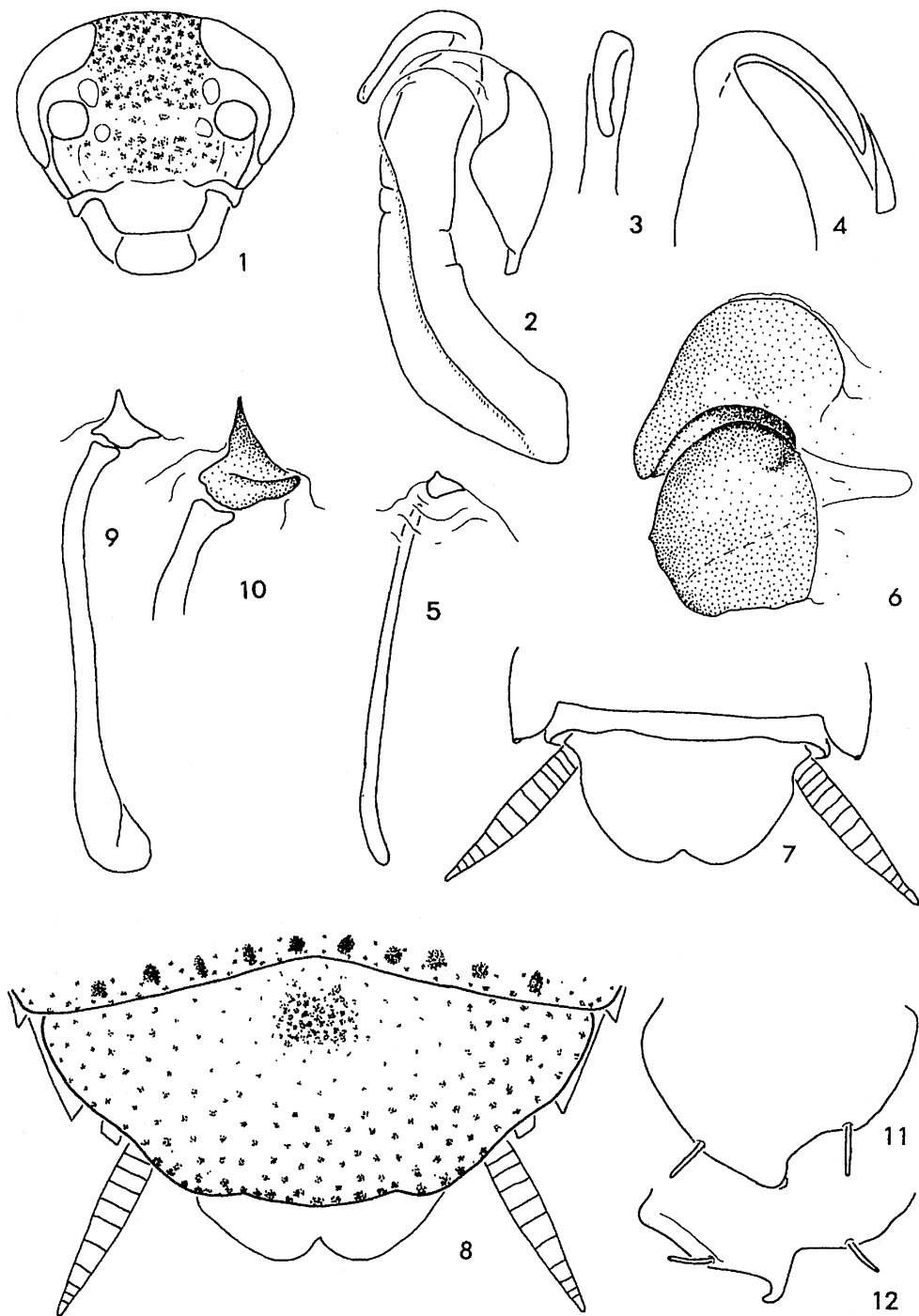
in length, completely biserially spined beneath; 2nd-4th segments spined beneath also; all the pulvilli minute, apical; arolium present. Anal plate elongated, notched on the caudal margin (Fig. 7). Hypandrium slightly asymmetrical, widely convex on posterior margin, with more or less visible triangular tooth on the caudal margin (Fig. 11, 12).

Male genitalia. Sclerite L2d with a subapical incision (term by Roth, 1970) (Figs 2-4, 13, 14, 17); sclerites R3d and L1 without bristles; R3d apically rounded, not protruded (Figs 6, 15, 18); sclerite N plate-like; sclerites L3d and R3v present.

Included species. Type species, *Rhabdoblattella vietnamensis* sp. n., *Rhabdoblattella delicata* sp. n., probably, *Rhabdoblatta kabakovi* Bey-Bienko, 1969 and *Rhabdoblatta annandalei* (Shelford, 1909).

Comparison. The above-described genus differs from the genera *Opisthoplatia* Brunner v. W., 1865, *Comptolampra* Saussure, 1893, *Morphna* Shelford, 1910, and *Calolamprodes* Bey-Bienko, 1969 in the structure of the posterior tarsus. *Rhabdoblattella* gen. n. differs from the genus *Rhabdoblatta* Kirby, 1903 in the structure of hypandrium and shape of the complex of sclerites R2, R3d, R3v, N and the sclerite L2d of the male genitalia. The new genus differs from the genus *Pseudophoraspis* Kirby, 1903 in the structure of head and hypandrium.

The generic position of *Rh. kabakovi* Bey-Bienko remains unclear because the male of this species is unknown.



Figs 1-12. 1-8, *Rhabdoblattella cambodiensis* sp. n., 1-7, ♂ (holotype): 1, head; 2-4, sclerite L2d (2, with sclerite L3d; 4, enlarged); 5, sclerite L1; 6, complex of sclerites R3d, R2, R3v and N; 7, caudal part of abdomen from above; 8, ♀ (paratype), caudal part of abdomen from below; 9-10, *Rhabdoblattella vietnamensis* sp. n., ♂ (holotype), genitalia: 9, sclerite L1; 10, distal part of L1, enlarged; 11-12, *Rhabdoblattella delicata* sp. n., ♂ (holotype), hypandrium (11, from below; 12, from below and caudally).

Rhabdoblattella cambodiensis sp. n.

(Figs 1-8)

Holotype. ♂, Cambodia, prov. Campot, env. of Si-hanoukville [= Kampong Som], forest near sea, 14-21.II.1998 (A.V. Gorochoy).

Paratype. 1 ♀, same data as holotype.

Description. Male (holotype). Interval between eyes about 2/3 length of eye; interval between antennal sockets about 1.8 times the length of scapus. Fore femora with 4 spines on lower inner margin. Male genitalia (Figs 2-6): sclerite L1 with small tubercle at apex; sclerite R3v practically unsclerotized and scarcely visible.

Female. Similar to male, but a little more robust; ultimate sternite with posterior margin truncate (Fig. 8). Fore femora with 4-5 spines on lower inner margin.

Length (mm): head ♂ 2.9; ♀ 3.3; pronotum ♂ 4.4; ♀ 4.1; elytra ♂ 15.5; ♀ 17. Width (mm): head ♂ 3; ♀ 3.3; pronotum ♂ 5.3; ♀ 5.8.

Comparison. *Rhabdoblattella cambodiensis* is possibly related to *Rhabdoblatta annandalei* (Shelford, 1909). These species are distinguished by the structure of the fore femora (Shelford, 1909). Unfortunately, there is only a brief description of *Rh. annandalei* and the male genitalia have not yet been described.

Rhabdoblattella vietnamensis sp. n.

(Figs 9, 10, 13-16)

Holotype. ♂, Vietnam, prov. Gia Lai, 20 km N of Kannack, Buon Luoi, 700-800 m, 1-10.V.1995 (A.V. Gorochoy).

Paratype. 1 ♂, same data as holotype, but 1-10.IV.1995.

Description. Male (holotype). Slightly larger than *Rh. cambodiensis*. Interval between eyes about 2/3 length of eye; interval between antennal sockets about 1.6 times the length of scapus. Fore femora with 4-5 spines on lower inner margin. Male genitalia with sclerite L1 acute at apex (Figs 9, 10); sclerite R3v strongly sclerotized (Figs 15, 16).

Female unknown.

Length (mm): head 3; pronotum 4.5; elytra 18.7. Width (mm): head 3.2; pronotum 5.5.

Comparison. This species clearly differs from *Rh. cambodiensis* in the shape of sclerite L1.

Rhabdoblattella delicata sp. n.

(Figs 11, 12, 17-19)

Holotype. ♂, Cambodia, prov. Campot, env. of Si-hanoukville [= Kampong Som], forest near sea, 16-18.II.1998 (A.V. Gorochoy).

Paratypes. 1 ♂, same data as holotype; 1 ♂, Thailand, prov. Surat Thani (central Malacca), 40 km WSW of Phanom, environs of National Park Khao Sok, primary forest, 20-29.VII.1996 (A.V. Gorochoy).

Description. Male (holotype). General colour more light than in *Rh. cambodiensis*; vertex and pronotum feebly dotted with dark brown; tibiae laterally feebly darkened; dark dots on the ventral surface of abdomen, tibiae and coxae nearly invisible. Interval between eyes about 0.9 times the length of eye; interval between antennal sockets about 1.8 times the length of scapus. Fore femora with 4-5 spines on lower inner margin. Male genitalia (Figs 17-19): sclerite L1 cap-like, without tubercles; L2d with an outgrowth at the base of curved part; complex of sclerites R2, R3d, R3v and N similar to that of *Rh. cambodiensis* sp. n.

Variation. Interval between eyes in the Thailand specimen about 0.7 times the length of eye; fore femora with 4-6 spines on lower inner margin.

Female unknown.

Length (mm): head ♂ 2.6-3 (3); pronotum ♂ 3.8-4.5 (4.5); elytra ♂ 15.9-16.4 (16.4). Width (mm): head ♂ 2.7-3.1 (3.1); pronotum ♂ 5-5.7 (5.7). Measurements in parentheses are those of holotype.

Comparison. This species readily differs from *Rh. cambodiensis* in the lighter colour and, especially, the shape of sclerites L1 and L2d.

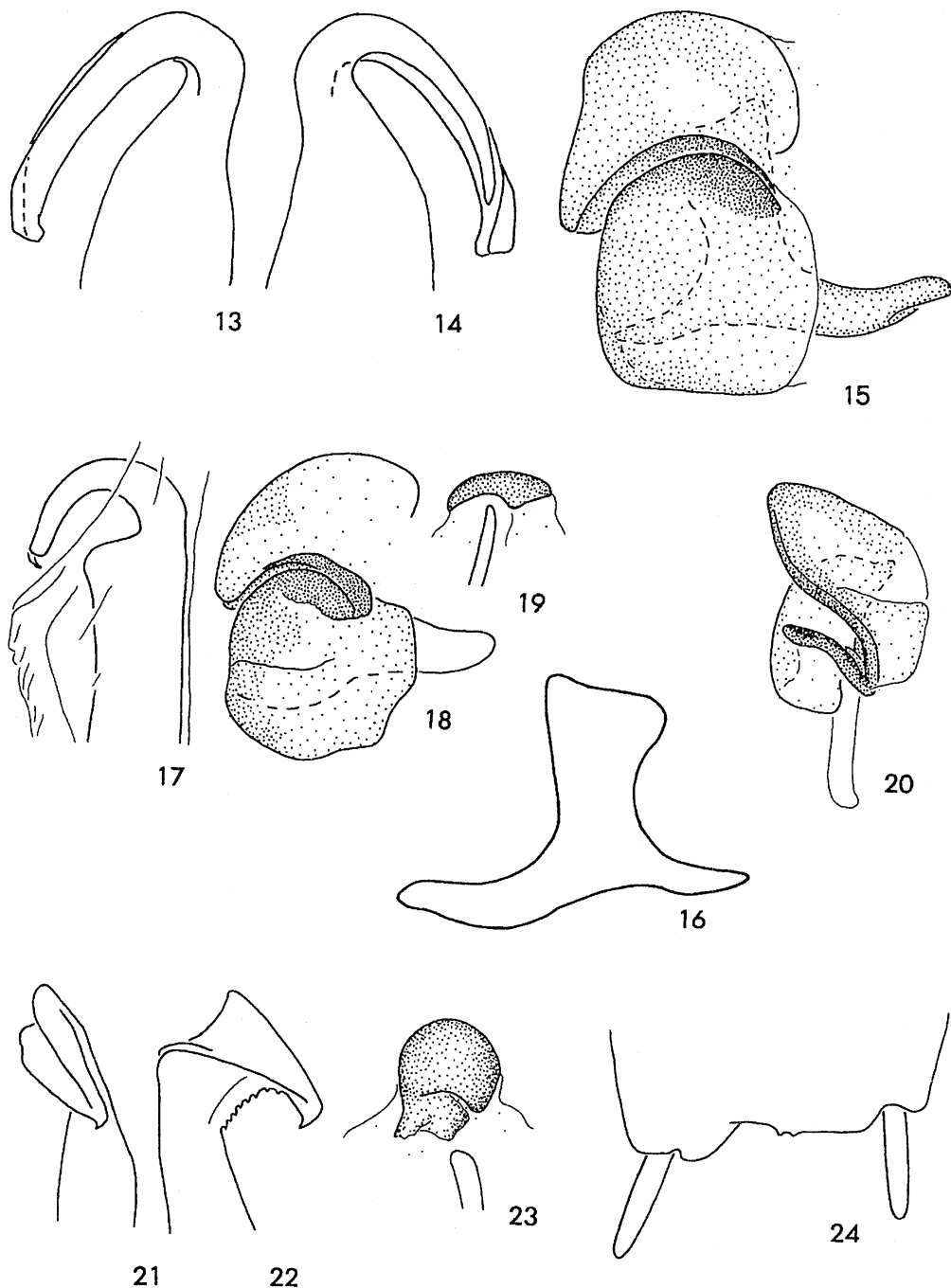
Genus Rhabdoblatta Kirby, 1903**Rhabdoblatta rattanakiriensis** sp. n.

(Figs 20-24)

Holotype. ♂, Cambodia, prov. Rattanakiri, 40-50 km E of Banlung, 25-28.II.1998 (A.V. Gorochoy).

Paratypes. 7 ♂, 1 ♀, same data as holotype.

Description. Male (holotype). General coloration pale yellowish; vertex between eyes darkened; head with two indistinct blackish markings between antennal pits; antennae dark brown, with two basal segments paler; eyes brownish; abdomen slightly spotted with black ventrally; pronotum finely spotted with black; elytra with a few scattered, small, black spots. All surfaces smooth, impunctate. Vertex freely exposed; eyes not widely separated. Interval between eyes about 1/5 length of eye; interval between antennal sockets about 1.5 times the length of scapus. Pronotum with rounded angles, posteriorly obtusely produced. Elytra weakly sclerotized, with distinct veins, apically



Figs 13-24. 13-16, *Rhabdoblattella vietnamensis* sp. n., ♂ (holotype), genitalia: 13-14, sclerite L2d, distal part; 15, complex of sclerites R3d, R2, R3v and N; 16, sclerite R3v; 17-19, *Rhabdoblattella delicata* sp. n., ♂ (holotype), genitalia: 17, sclerite L2d, distal part invested in membranous sack; 18, complex of sclerites R3d, R2, R3v and N; 19, sclerite L1, distal part; 20-24, *Rhabdoblatta rattanakiriensis* sp. n., ♂ (holotype): 20-23, genitalia: 20, complex of sclerites R3d, R2, R3v and N; 21-22, sclerite L2d, distal part; 23, sclerite L1, distal part; 24, hypandrium from below.

rounded. Fore femora with 1-2 apical spines and 5-6 spines on the lower inner margin; arolium present. Anal plate transverse, with wide triangular emargination at caudal margin. Hypandrium asymmetrical (Fig 24). Male genitalia (Figs 20-23): sclerite R3d with bristles; R3v present, but very weakly sclerotized; L1 rounded, covered with bristles; L2d with cristate apex; L3d present.

Female. Similar to male, but more robust; abdomen with median longitudinal black stripe ventrally.

Variation. Two small teeth in the middle of posterior margin of hypandrium sometimes fused. The shape of sclerite L1 somewhat variable.

Length (mm): head ♂ 3.6-3.9 (3.6); ♀ 4.7; pronotum ♂ 5.2-5.6 (5.2); ♀ 7.1; elytra ♂ 24-26 (25); ♀ 31. Width (mm): head ♂ 3.5-3.8 (3.6); ♀ 4.5; pronotum ♂ 6.4-7.2 (6.9); ♀ 9.5. Measurements in parentheses are those of holotype.

Comparison. This species belongs to the *abdominalis* species group (Bey-Bienko, 1970). *Rh. rattanakiriensis* is similar to *Rh. pisarskii* Bey-Bienko, 1970 in the shape of hypandrium, but differs from it in the general coloration and in the shape of the anal plate.

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