

Revision of the genus *Boopidocoris* Reuter (Heteroptera: Miridae, Phyllinae)

RAUNO E. LINNAVUORI

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The genus *Boopidocoris* Reuter, 1879, is revised. New species: *B. nahidae* sp. n. (Iran).

R.E. Linnavuori, FIN-21220 Raisio 22, Somersoja, Finland.

The genus *Boopidocoris* was described by Reuter (1879: 202) for *B. vitticollis* Reuter from Turkestan. Later on, Puchkov (1976) described another species of the genus, *B. salsolae* Puchkov, from Turkmenistan. During my recent trip to the Khoransan Province in Iran a further undescribed species was detected near the village Parvand about 70-80 km West from Sabzevar. The area, which consists of small dunes with *Calligonum comosum*, *Salsola richteri* and *Haloxylon articulatum* as typical shrubs, is widely separated by mountain ranges and highlands from corresponding areas in Central Asia. This region is highly interesting from a biogeographical point of view and contains several species of Hemiptera, which have not been found in the other parts of the province.

Depository. – The holotype of *B. vitticollis* Reuter belongs to the Zoological Museum of the Helsinki University. All other specimens belong to the American Museum of Natural History, New York, but are temporarily deposited in Coll. Linnavuori, Raisio, Finland.

Genus *Boopidocoris* Reuter

Boopidocoris Reuter 1879: 202. Type species: *B. vitticollis* Reuter.

Description. – Shiny, pale grayish or yellowish species. Head and anterolateral part of pronotum with characteristic black pattern, pronotum also with four faint longitudinal orangish bands. First

antennal segment pale, others reddish or dark brown. Clavus, corium and cuneus with dense setigerous dark puncturing (Fig. 1h): membranes smoky hyaline, veins pale. Femora with dense black spotting; tibiae with black setigerous dots, spines black.

Body robust, relatively short and broad, parallel-sided. Glabrous, only dark dots on elytra with delicate short setae. Head short, in apical view distinctly broader than high, part below eyes short, bluntly angular, antennal pits close to ventral corners of eyes; head in lateral view higher than long, roundedly sloping ventrad already from base of vertex, tylus prominent, eyes in ♂ extending near to ventral margin of head, in ♀ smaller; vertex in dorsal view convex with basal margin distinctly or obsoletely keeled. Antennae relatively short, incrassate, hair covering short, appressed, only 4th segment with a few longer setae; 1st joint short, at most 0.3 x as long as diatone, 2nd about as long as diatone, shorter than basal width of pronotum, incrassate, in ♂ somewhat thicker than in ♀, joints 3 and 4 more gracile. Rostrum extending to mesocoxae, joint 1 not reaching base of head. Pronotum at most twice as broad as long in middle; lateral margins insinuated or nearly straight, owing to convexity of disk rounded ventrad and there obsoletely keeled; middle of anterior margin with narrow remnant of collar; basal margin shallowly insinuated in middle; disk convex, sloping apicad and laterad, calli

prominent, convex, rest of disk uneven, distinctly or obsoletely punctate, transversely rugose. Scutellum large, mesoscutum broadly visible. Elytra subhyaline, clavus, corium and cuneus with dense setigerous dark puncturing, setae dark. Prosternal xyphus convex. Legs relatively short, hind tibia, for example, about 1.25-1.4 x as long as basal width of pronotum, and incrassate. Tibiae, hind tibiae especially, somewhat flattened, spines shorter than tibial diameter. Hind tarsus about 0.4 x as long as tibia, 3rd tarsomere distinctly longer than 2nd. Claws (Fig. 1f) gracile, pulvilli short, parempodia short, spine-like.

Male genitalia: Pygofer narrowly conical. Right style very small, with short apical tooth. Left style with short, triangular hypophysis, sensory lobe with plug-like process. Theca claw-like. Vesica gracile, arcuate, apex scoop-like, with claw-like terminal process and coarsely dentate subapical ridge; gonopore elongate, subapical.

Biology. – On *Salsola* spp.

Distribution. – Turanian, a radiation into the Sabzevar area has also taken place leading to the evolution of the new species described below.

Discussion. – *Boopidocoris* is a distinctive genus, which is apparently related to *Leucopteryx* Reuter, *Solenoxyphus* Reuter and *Malthacosoma* Reuter. It is easily distinguished from the related genera by the color pattern, uneven, punctate pronotum with elevated calli, short and incrassate antennae and legs, and the keeled basal margin of the vertex.

Key to the species

1. Head and anterior part of pronotum with two round black spots. Tylus pale. Pronotum obsoletely punctate..... *nahidae*
- Head with a dark median band, dark markings on anterolateral part of pronotum also elongate. Tylus dark. Pronotum distinctly punctate..... 2
2. Pronotum with two distinct orange middle bands. Head (♂) 0.9 x as broad as basal width of pronotum; eyes large, ocular index 1.35. Pronotum 1.5 x as broad as long in middle..... *viticollis*
- Middle orange bands on pronotum faint or absent. Head (♂♀) 0.70-0.75 x as broad as basal width of pronotum; ocular index 1.42 (♂), 2.15 (♀). Pronotum about twice as broad as long in middle..... *salsolae*

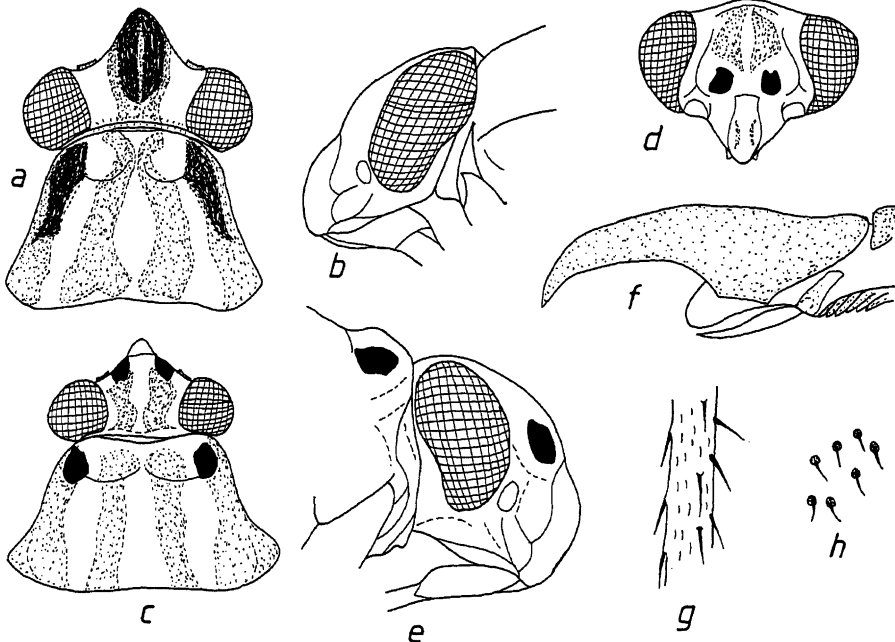


Fig. 1. *Boopidocoris vitticollis* Reuter (♂ holotype): (a) head and pronotum from above; (b) head in lateral view. *B. nahidae* sp. n.: (c) ♂ head and pronotum from above; (d) ♂ head in apical view; (e) ♀ head in lateral view; (f) claw; (g) spinulation of hind tibia; (h) chaetotaxy of elytron.

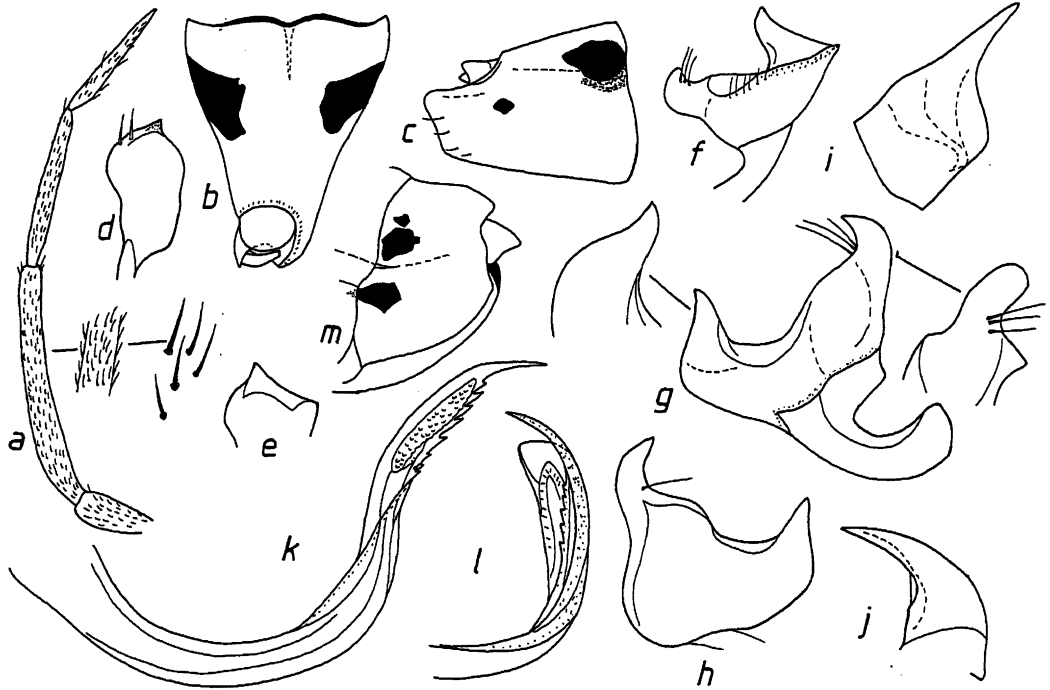


Fig. 2. *Boopidocoris nahidae* sp. n.: (a) ♂ antenna; (b-c) ♂ pygofer in dorsal and lateral view; (d-e) right style; (f-h) left style in different views; (i-j) theca in dorsal and lateral view; (k) vesica (slide mount); (l) apex of vesica in dry mount; (m) ♀ genital segment in lateral view.

Boopidocoris nahidae sp. n.

(Figs 1 c-h, 2 a-m)

Types. – Iran, Khorasan, 70-80 km W of Sabzevar near Parvand, ♀ holotype, many paratypes (♂♀), 31.V-1.VI.1994, Linnavuori, in coll. Linnavuori.

Diagnosis. – Readily recognized by the color pattern and obsolete punctate pronotum.

Description. – Length 4.5-5.0 mm. Shiny. Whitish ochraceous, with slight greenish tinge in life. Tylus pale; a round black spot at each antennal pit, frons with two faint orangish bands converging caudad and extending to base of vertex. Eyes reddish. 1st antennal segment yellowish brown with a few tiny dark dots, 2nd yellowish brown, gradually darkening apicad, other joints dark brown, base of 3rd whitish. Anterior lobe of pronotum with a round lateral black spot on each side, disk with four longitudinal orange bands. Scutellum yellow, mesoscutum with four longitudinal blackish bands, which are vaguely seen through the posterior lobe of the pronotum. Elytra

pale grayish, clavus, corium and cuneus with numerous small dark setigerous punctures; membranes grayish hyaline, veins white. Sides of ventral surface with orangish tinge. Male and female genital segments with black spots as indicated in Figs 2 b-c and m. Legs pale ochraceous. Caudobasal angle of fore coxa black. Margins and under surfaces of femora with abundant black mottling. Tibiae with small setigerous black dots.

Body about 3 x as long as broad at base of pronotum. Head (♂♀) 0.7-0.8 x as broad as basal width of pronotum; base of vertex obtusely carinate; ocular index 1.60-1.73 (♂), 1.90-2.42 (♀). Proportions between antennal segments 20:74:49:30 (♂), 20:70:46:29 (♀), 1st segment incrassate, about 0.27-0.30 x as long as diatone, 2nd incrassate, moderately tapering apicad, 0.96-1.12 (♂♀) x as long as diatone, 0.74-0.87 x as long as basal width of pronotum. Rostrum extending to apex of mesosternum. Pronotum nearly twice as broad as long in middle, lateral margins shallowly insinuated; disk finely transversely

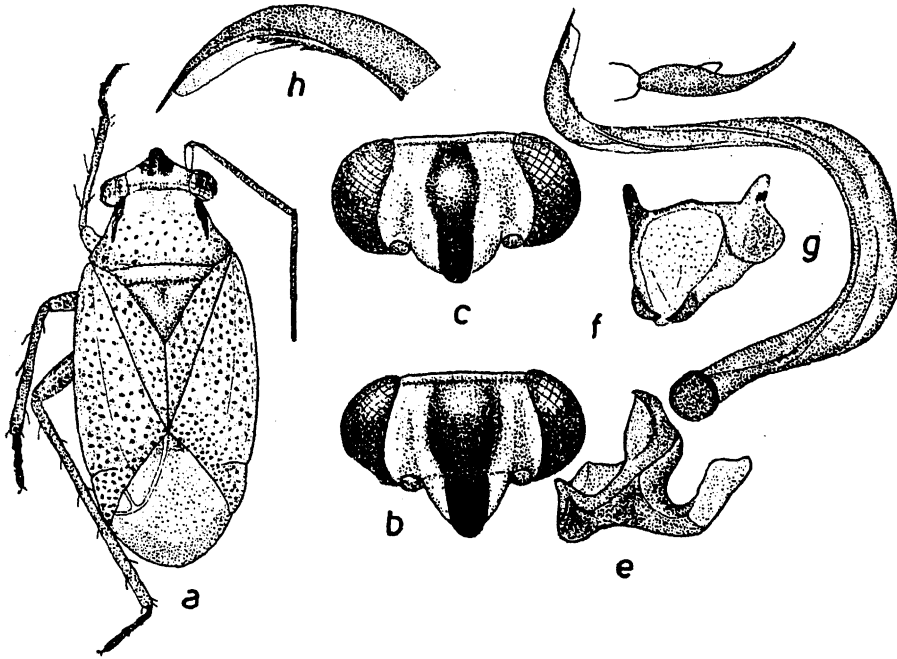


Fig. 3. *Boopidocoris salsolae* Puchkov: (a) ♀, dorsal view; (b-c) ♂ and ♀ head in apical view; (d) claw; (e-f) left style in different views; (g) vesica; (h) apex of vesica. After Puchkov (1976).

rugose, obsolete punctate. Hind tibia about 1.25 x as long as basal width of pronotum, hind tarsus about 0.4 x as long as tibia, proportions between hind tarsomeres 12:21:29; claw in Fig. 1 f.

Male genitalia (Figs 2 b-l). Female abdomen (Fig. 2 m).

Biology. – On *Salsola richteri*.

Etymology. – The species is dedicated to Miss Nahid Kamalzadeh, College of Agriculture, Ferdowsi University, Mashhad, Iran.

Boopidocoris vitticollis Reuter

(Figs 1 a-b).

Boopidocoris vitticollis Reuter 1879: 202.

Type. – Turkmenistan, Kizilkum, ♂ type (fragmentous, with abdomen, left elytron and posterior legs missing), in coll. Reuter, Mus. Helsinki.

Description. – ♂ Length 5 mm. Whitish. Head with dark brown, in upper part orangish brown median band from tip of tylus to base of vertex; eyes brown. 1st antennal segment pale yellowish, apically orangish, other joints reddish brown,

extreme bases of joints 2 and 3 whitish. Each side of pronotum with dark brown longitudinal band from anterolateral corner to middle of disk, pronotum also ornamented with four distinct orange bands as seen in Fig. 1 a, puncturing on disk concolorous. Scutellum orangish yellow. Elytra with minute brownish setigerous punctures. Under surface of head and prothorax whitish, propleura with longitudinal band along dorsal margin. Meso- and metathorax orange. Legs whitish. Anterior margins of fore coxae with orange band. Fore and middle femora with a few brown dots, setigerous dark dots on the corresponding tibiae very indistinct.

Head large, 0.91 x as broad as basal width of pronotum, base of vertex sharply carinate; eyes large, ocular index 1.35. Proportions between antennal joints 22:85:55:32, 1st joint 0.27 x as long as diatone, 2nd cylindrical, 1.04 x as long as diatone, 0.94 x as long as basal width of pronotum. Pronotum elongate, 1.5 x as broad as long in middle, lateral margins distinctly insinuated, posterior part of disk distinctly punctate, transversely rugose.

Biology. – On *Salsola arbuscula* (Puchkov 1976: 1140).

Distribution. – Turkmenistan.

***Boopidocoris salsolae* Puchkov**

(Figs 3 a-h).

Boopidocoris salsolae Puchkov 1976: 1138.

Material. – Turkmenistan, without locality label, ♂ and ♀, Puchkov, in coll. Linnavuori.

Description. – Length 3.7–4.5 mm. Whitish. Head with dark brown to orangish brown median band from tip of tylus to base of vertex; eyes reddish brown. 1st antennal segment pale, others embrowned. Anterior part of pronotum with dark brown longitudinal band on each side, the four orange bands less distinct than in *B. vitticollis*, puncturing on disk brown. Elytra with distinct brown setigerous puncturing. Under surface of head and prothorax whitish, meso- and metathorax and sides of venter orangish. Genital segments (♂♀) immaculate in the specimens studied.

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Femora with abundant dark mottling on under surface. Tibiae with distinct dark setigerous dots.

Head 0.75–0.77 x as broad as basal width of pronotum, basal margin of vertex distinctly keeled; ocular index 1.42 in ♂, 2.16 in ♀. Proportions between antennal joints (♂) 20:80:55:27, 1st joint 0.31 x as long as diatone, 2nd 1.23 x as long as diatone, 0.95 x as long as basal width of pronotum. Pronotum 2.0 (♂) or 1.82 (♀) x as broad as long in middle, lateral margins shallowly insinuated, disk distinctly punctate.

Male genitalia in Figs 3 e-h.

Biology. – On *Salsola richteri*.

Distribution. – Turkmenistan.

References

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