

Studies on the Miridae fauna (Heteroptera) of the Middle East

Rauno E. Linnavuori

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The article contains taxonomic studies on Miridae of the Middle East. *Megacoelum quercicola* Linnavuori 1984 (Iraq) is renamed as *M. irbilanum* nom.nov. *Pronototropis* Reuter and *Pleuroxonotus* Reuter are regarded as separate genera. *Pronototropis longicornis* Reuter and *P. longirostris* Wagner are transferred to *Pleuroxonotus*. *Pronototropis* subgenus *Jafara* Wagner is synonymized with the subgenus *Alloeonycha* Reuter in *Macrotylus* Fieber. Two new taxa, *Macrotylus dahukanus* sp.n. (Iraq) and *Monocris longicornis* sp.n. (Iraq), are described.

Rauno E. Linnavuori, Somersoja, SF-21220 Raisio 22, Finland

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1. *Megacoelum irbilanum* nom. nov.

Megacoelum quercicola Linnavuori 1984: 27–28, nec *M. quercicola* Linnavuori, 1965: 26–27.

The *Megacoelum* species described by me as *M. quercicola* from Iraq must be renamed, since I have already used the same name for a species from Tunisia.

2. On the genera *Pronototropis* Reuter and *Pleuroxonotus* Reuter

The taxonomy of *Pronototropis* and *Pleuroxonotus* was treated in Linnavuori 1971: 133–135. The former genus was regarded as monotypic containing only the type species, *P. punctipennis* (Fieber), since the second known species, *Pronototropis longicornis* Reuter, turned out to be closely related to the type species of *Pleuroxonotus*, *P. nasutus* Reuter, and was therefore transferred to that genus. Wagner (1973a) opposed my proposal and wanted to retain the old concepts of the genera. However, some of the distinctive characters mentioned by him are imaginary (such as differences in starting points of antennae and

in shape of labrum between *nasutus* and *longicornis*), while others occur in both species (dark inner margin of clavus), or are valid at the species but not at the generic level. Moreover, *Pronototropis* (*Jafara*) *Brevirostris* Wagner, which was claimed by him to be an intermediate between *punctipennis* and *longirostris*, in fact belongs to the genus *Macrotylus* Fieber. The comparison in Table 1 is based on material recently added to my collection.

The *Pronototropis* complex evidently consists of two phylogenetic groups. The first group, *Pronototropis* in a strict sense, contains only *punctipennis*, the second group three species, *nasutus*, *longicornis* and *longirostris*. Of these, *nasutus* and *longicornis* are sister species, recently evolved from a common ancestor. Consequently *Pleuroxonotus* is the valid generic name for this group. *P. longirostris*, unknown to me, is apparently an older derivative of the stock. *Pronototropis* and *Pleuroxonotus* have evolved from the same ancestral group. They are closely related but, in my opinion, merit separate generic status. If, however, they are lumped together, *Pronototropis* is the valid name for the group. In this case *Pleuroxonotus* forms a well-defined subgenus within *Pronototropis*.

Table 1. Character comparison between *Pronototropis punctipennis* (Fieber) and genus *Pleuroxonotus*: *P. longicornis*, *P. longirostris*, and *P. nasutus*.

<i>Pronototropis punctipennis</i>	<i>Pleuroxonotus</i> spp.
1. body small and robust, length at most 5 mm.	1. body long and narrow, length > 5 mm.
2. hair covering (Fig. 2b) on upper surface and venter conspicuous, dense, long, semierect, black.	2. hair covering (Fig. 2e) on upper surface smooth, short, blackish, on venter inconspicuous, short and pale.
3. head (Fig. 1b) short and broad.	3. Head (Fig. 1e) considerably longer and narrower.
4. antennae short and incrassate, 2nd joint 1.4 (♂) or < 1.0 (♀) x as long as diatone; hair covering of joints (Fig. 2a) long, semierect, black.	4. antennae long and gracile, 2nd joint in both sexes > 1.4 x as long as diatone; hair covering (Fig. 2d) of joints short, smooth, blackish.
5. rostrum short, extending only a little beyond fore coxae.	5. rostrum extending distinctly beyond fore coxae.
6. lateral margins of pronotum strongly insinuated, in anterior part nearly parallel, in basal part strongly diverging, bluntly keeled.	6. lateral margins of pronotum strongly diverging caudad, straight or at most slightly insinuated, sharp, narrowly or broadly lamellate.
7. elytra < 4 x as long as broad.	7. elytra long and narrow, about 5 x as long as broad.
8. legs relatively short; hair covering on femora and tibiae longish, semierect, hairs and spines of tibiae arising from distinct brown spots.	8. legs long and gracile; hair covering on femora and tibiae short and smooth, tibiae immaculate.
9. right style with T-shaped hypophysis; vesica small, without apical process.	9. right style with narrow hypophysis; vesica long, ending in a claw-like apical process (<i>longicornis</i> , <i>nasutus</i>), in <i>longirostris</i> apical process blade-like.

***Pronototropis* Reuter**

Pronototropis Reuter, 1879:248; type species: *Oncotylus punctipennis* Fieber

***Pronototropis punctipennis* (Fieber)**

Figs. 1a–c, 2a–c, 3a–d, 6g.

Oncotylus punctipennis Fieber, 1864:225

Description of this well known species is not repeated here.

Range: Caspian, distributed from Ukraina to Turkestan.

Material studied: USSR: Sarepta, 1 ex, Bekker; Bek-budi bl. Karši, Uzbekistan, 2 exx, 13.IV.1932, Ljubišjev; Transaspia, 1 ex, Ahnger, in coll. Linnavuori.

***Pleuroxonotus* Reuter**

Pleuroxonotus Reuter, 1904a: 7; type species: *P. nasutus* Reuter

Key to the species

- 1 (2) Eyes large, ocular index 1.13–1.20 (♂), 1.78–1.85 (♀).
Antennae very long and gracile, 2nd joint 1.90–1.95 (♂) or

1.76–1.95 (♀) x as long as diatone, 1.23–1.30 (♂) or 1.0–1.15 (♀) x as long as basal width of pronotum

..... *longicornis*

- 2 (1) Eyes much smaller, ocular index > 1.5 (♂), 2.0 (♀).
Antennae shorter 3

- 3 (4) Lateral margins of pronotum distinctly lamellate, sharp.
Rostrum extending near to apex of mesosternum. Apical process of vesica claw-like *nasutus*

- 4 (3) Lateral margins of pronotum narrowly lamellate, blunt.
Rostrum extending to apex of middle coxae. Apical process of vesica blade-like *longirostris*

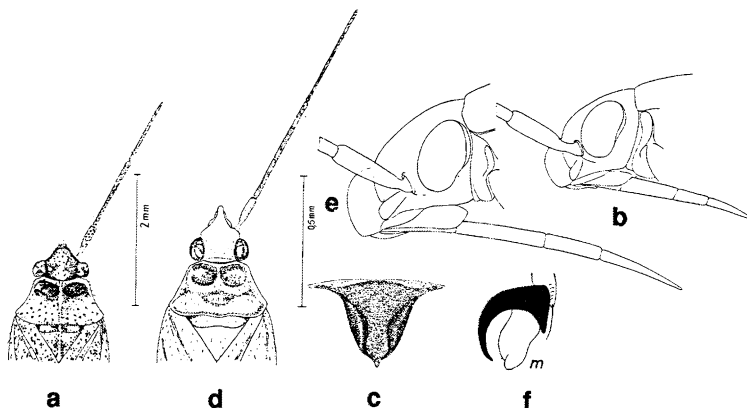
***Pleuroxonotus longicornis* (Reuter)**

Figs. 1d–e, 2d–e, j, 3e–h, 6f.

Pronototropis longicornis Reuter 1900:140.

Length ♂ 6.0–7.4 mm, ♀ 5.5–6.0 mm. Pale yellowish green. Eyes dark gray or grayish brown. Antennae uniformly pale. Elytra uniformly pale or ornamented by embrowned longitudinal stripes formed by dark setigerous punctures along R, in middle of mesocorium and along claval vein; membrane brownish hyaline with indistinct pale median band, veins pale. Femora with indistinct brownish dots. Tarsi dark.

Fig. 1. — *Pronototropis punctipennis* (Fieber): a) head and pronotum (♂); b) head in profile; c) prosternal xyphus. — *Pleuroxonotus longicornis* (Reuter): d) head and pronotum (♀); e) head from side. — *Macrotylus dentifer* Wagner: f) claw. — After Seidenstücker 1962, Wagner 1969.



Body long and narrow, 4.5 (♂) or 4.0 (♀) × as long as basal width of pronotum. Eyes large, ocular index 1.13–1.2 (♂), 1.78–1.85 (♀). Antennae long and gracile, proportions between segments 11:43:36:13 (♂), 12:44:30:2 (♀); 2nd joint 1.40–1.95 (♂) or 1.76–1.95 (♀) × as long as diatone, 1.23–1.30 (♂) or 1.02–1.15 (♀) × as long as basal width of pronotum. Rostrum extending to middle coxae. Lateral margins of pronotum straight, sharp, in ♂ narrowly, in ♀ more broadly lamellate. Legs long, hind femur 1.5 (♂) or 1.25 (♀), hind tibia 2.45 (♂) or 2.0 (♀) × as long as basal width of pronotum. 3rd hind tarsomere (Fig. 6f) slightly shorter than 2nd, proportions between joints 10:26:25. Claw in Fig. 2j.

Male genitalia in Fig. 3e–h.

Biology: in Libya found on *Launea resedifolia* D.K.

Range: South Mediterranean (Morocco–Israel). The records mentioned in Linnavuori 1971: 135 are not repeated here.

Pleuroxonotus nasutus Reuter

Figs. 2 g, 4a–f, 6a

Pleuroxonotus nasutus Reuter 1904: 7–9.

Length ♂ 6.5 mm, ♀ 6.5–7 mm. Pale green or yellowish. Eyes grayish brown. Antennae with 3rd and 4th joints and apex of 2nd slightly embrowned. Elytra with trace of longitudinal brownish band on mesocorium; membrane brownish hyaline with distinct pale median band, veins pale. Legs yellowish.

Resembling *P. longicornis*, but body shorter and broader, 3.6–3.7 × as long as broad at base of pronotum. Eyes smaller, ocular index 1.53 (♂) or 2.0 (♀). Antennae shorter, proportions between joints 12:39:31:10 (diatone 24 units) in ♂, 12:35:28:12

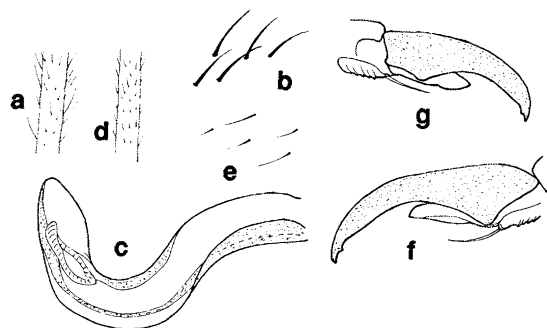


Fig. 2. — *Pronototropis punctipennis* (Fieber): a) hair covering of 2nd antennal segment; b) same of elytron; c) vesica. — *Pleuroxonotus longicornis* (Reuter): d) hair covering of 2nd antennal segment; e) same of elytron; f) claw. — *P. nasutus* Reuter: g) claw.

(diatone 26.5) in ♀; 2nd segment 1.63 (♂) or 1.35–1.46 (♀) × as long as diatone, 1.0 (♂) or 0.8–0.9 (♀) × as long as basal width of pronotum. Rostrum extending to apex of mesonotum. Lateral margins of pronotum slightly insinuated or nearly straight, distinctly (in ♂ narrowly, in ♀ broadly) lamellate and upcurved. Legs shorter, hind femur 1.4 (♂) or 1.1 (♀), hind tibia 1.85 (♂) or 1.6 (♀) × as long as basal width of pronotum. 3rd joint of hind tarsus longer than 2nd, proportions between joints 11:20:22. Claw in Fig. 2g.

Male genitalia (Fig. 4b–f) much as in the preceding species.

Range: Turkestan.

Material studied: USSR: Turkestan, Aschabad, 2 exx, Ahnger; Turkmenkaja SSR, Kazandžikskii r. pos. Ahča-Kuima, 2 exx, 8.V.1974, V. Puchkov, in coll. Linnavuori.

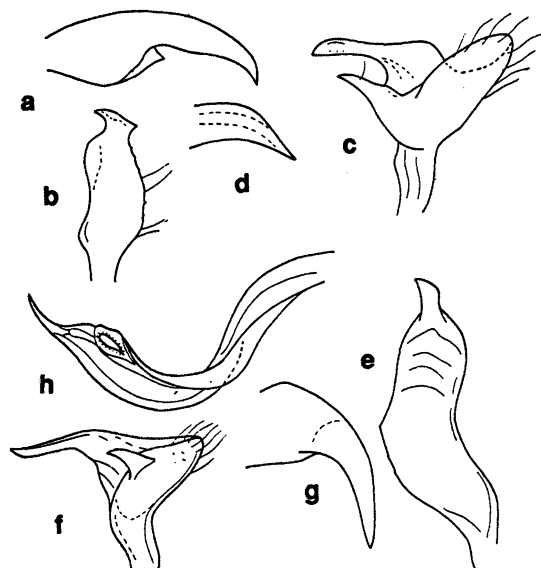


Fig. 3. — *Pronototropis punctipennis* (Fieber): a) claw; b) right style; c) left style; d) theca. — *Pleuroxonotus longicornis* (Reuter): e) right style; f) left style; g) theca; h) vesica. — After Linnavuori 1971.

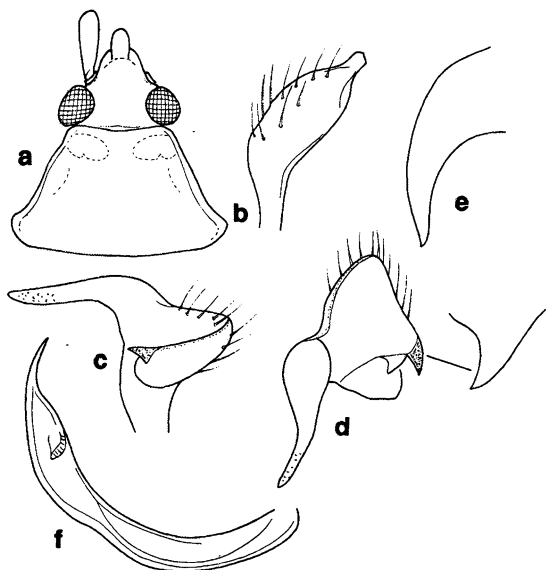


Fig. 4. — *Pleuroxonotus nasutus* Reuter: a) head and pronotum (♂); b) right style; c) left style; d) same from above; e) theca; f) vesica (of an immature specimen).

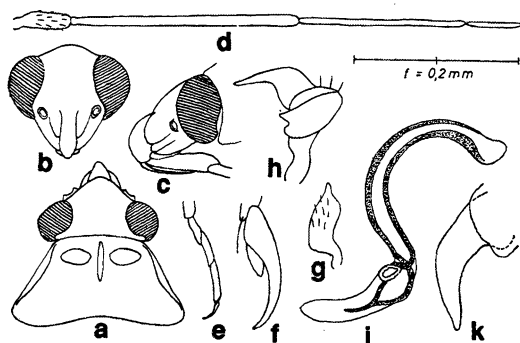


Fig. 5. — *Pleuroxonotus longirostris* (Wagner): a) head and pronotum; b) head in apical view; c) same from side; d) antenna; e) hind tarsus; f) claw; g) right style; h) left style; i) vesica; k) theca. — After Wagner 1973b.

***Pleuroxonotus longirostris* (Wagner),
comb.n.**

Fig. 5a-k.

Pronototropis longirostris Wagner 1973: 123-125.

The original description is not repeated here.

Range: Rhodos.

Unknown to me. The holotype does not exist in coll. Wagner in Zool. Mus. Hamburg (personal communication from Prof. H. Strümpel).

3. The taxonomic position of *Jafara* Wagner

Jafara was described as a subgenus of *Pronototropis* by Wagner (1971: 31-37) for the species *brevirostris* from Iran. However, *brevirostris* displays all the essential characters of *Macrotylus* Fieber, including the distinctive claw structure of the genus. It is, in fact, closely related to *M. hymenocratii* Puchkov from Central Asia, which was regarded as a member of the subgenus *Pontodemus* Wagner by Puchkov (1974: 79). *Pontodemus* is distinguished by the structure of the claws (Fig. 7a): basal tooth broad, bilobate, apical part of claw straight, running parallel to the basal tooth. Moreover, the color of the body is black. The claws, color and the male genital structure in *brevirostris* and *hymenocratii* are as in the subgenus *Alloeonycha* Reuter. Hence, *Jafara* is evidently a synonym of *Alloeonycha*. The proposed synonymy is:

Macrotylus (*Alloeonycha* Reuter)

Alloeonycha Reuter 1904b: 9; type species: *A. mayri* Reuter.

Pronototropis subgenus *Jafara* Wagner, 1971: 31-37; type species: *P. (Jafara) brevisrostris* Wagner, syn.n.

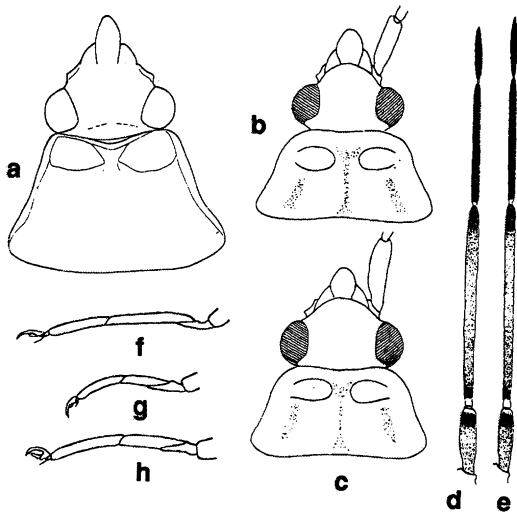


Fig. 6. — *Pleuroxonotus nasutus* Reuter: a) head and pronotum (♀). — *Macrotylus dentifer* Wagner: b) same (♂); c) same (♀); d) antenna (♂); e) same (♀). — *Pleuroxonotus longicornis* (Reuter): f) hind tarsus. — *Pronototropis punctipennis* (Fieber): g) same. — *Macrotylus brevirostris* (Wagner): h) same. — Linnavuori 1971, Wagner 1969, 1973a.

M. brevirostris and *M. hymenocratii* belong to the *dentifer* group within *Alloeonycha*, which is recognized by the presence of a subapical process on the vesica and pale coloring. The group consists of four species: *M. dentifer* Wagner, *M. dahukanus* sp.n., *M. hymenocratii* Puchkov, and *M. brevirostris* (Wagner). *M. dentifer* (Pontomediterranean) and *M. dahukanus* are sister species, sharing a tooth-like subapical vesical process and relatively incrassate antennae. The biology of these species is unknown. Turanian *M. hymenocratii* and Iranian *M. brevirostris* are likewise sister species, which have a claw-like subapical process on the vesica and long and gracile antennae. Both species feed on *Hymenocratus*.

Key to the species of the *dentifer* group

- 1 (2) Small species, length ♂ 3.75 mm, ♀ 4.0–4.25 mm. Antennae pale, remarkably incrassate (Fig. 8d–e), 1st segment 2.33 (♂) or 2.67 (♀) × as long as broad. Vesica (Fig. 9f): subapical process tooth-like, ventral part in front of gonopore smooth *dahukanus*
- 2 (1) Larger species. Antennae more gracile 3
- 3 (4) Eyes small (Fig. 6b–c), ocular index 1.90–2.1 (♂), 2.12–2.43 (♀). Antennae (Fig. 6d–e) relatively incrassate, apex of 1st segment and base of 2nd usually fuscous. Vesica (Fig. 8a): subapical process tooth-like, ventral part in front of gonopore dentate *dentifer*
- 4 (3) Eyes larger. Antennae gracile, pale. Subapical process of vesica claw-like 5

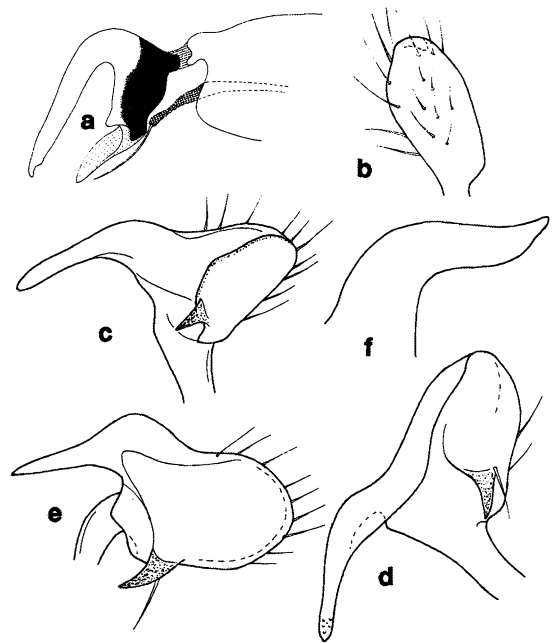


Fig. 7. — *Macrotylus ponticus* Seidenstücker: a) claw. — *M. dentifer* Wagner (from Nigde): b) right style; c) left style in glycerine; d) same in slide; e) same from above; f) theca. — a) After Seidenstücker 1967.

- 5 (6) Opaque. Color pale grayish green, elytra with fine brown irroration. 3rd joint of hind tarsus (Fig. 6h) as long as 2nd *brevirostris*
- 6 (5) Shiny. Color greenish ochraceous, elytra immaculate. 3rd joint of hind tarsus (Fig. 12c) shorter than 2nd *hymenocratii*

Macrotylus dentifer Wagner

Figs. 1f, 6b–e, 7b–f, 8a.

Macrotylus (*Alloeonycha*) *dentifer* Wagner, 1969:308.

Length ♂ 4.5–5.0, ♀ 5.0–5.5 mm. Pale grayish or yellowish green. Apex of 1st antennal segment and base of 2nd usually blackish, 3rd and 4th joints dark. Pronotum sometimes with three faint brownish longitudinal stripes. Elytra immaculate; membrane smoky with pale spot at tip of cuneus, veins pale. Legs yellow-brown, immaculate; tarsi dark.

Body robust. Hair covering black. Eyes small, ocular index 1.9–2.1 (♂), 2.12–2.43 (♀). Antennae (Fig. 6d–e) relatively incrassate, proportions between joints 9:31:20:10 (diatone 18.5 units) in ♂,

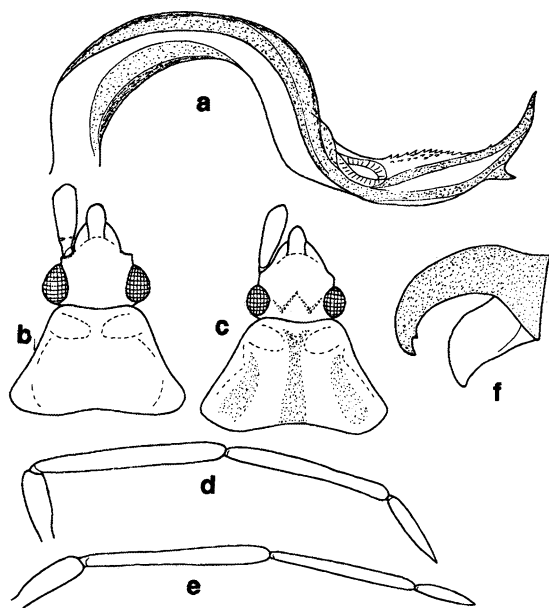


Fig. 8. — *Macrotylus dentifer* Wagner: a) vesica. — *M. dahukanus* sp.n.: b) head and pronotum (♂); c) same (♀); d) antenna (♂); e) same (♀); f) claw.

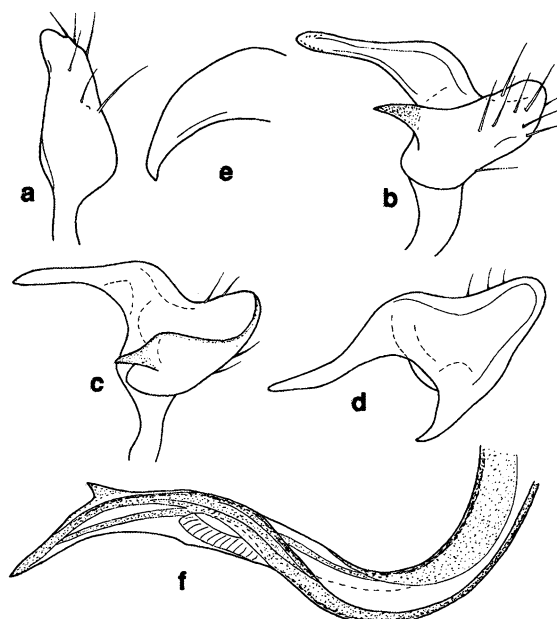


Fig. 9. — *Macrotylus dahukanus* sp.n.: a) right style; b) left style in slide; c) same in glycerine; d) same from above; e) theca; f) vesica.

9:28:20:10 (diatone 20.5) in ♀. Rostrum extending to hind coxae. Elytra and flying wings in ♂ much longer than abdomen, in ♀ often as long as abdomen. 3rd joint of hind tarsus nearly as long as 2nd. Claw in Fig. 7f.

Male genitalia in Figs. 7b–f, 8a. Vesica distinctive: subapical process tooth-like, ventral margin in front of gonopore finely dentate.

Range: Pontomediterranean. Recorded from Yugoslavia, Bulgaria and Turkey.

Material studied: Bulgaria: Petritsch, 5 exx, 11–15.VI.1959, M. Josifov. USSR: The Crimea, Simpheropol, 2 exx, 29.V.1907, Kiritshenko. Turkey: Nigde (Kayaardi), 4 exx, 14.V.1960, H. Eckerlein, in coll. Linnavuori.

Macrotylus dahukanus sp.n.

Figs. 8b–f, 9a–f.

Length ♂ 3.75 mm, ♀ 4.0–4.25 mm. Opaque. Pale yellowish green. Antennae unicolor, yellowish, in ♂ base of 1st joint with small brown dots. Eyes pale grayish brown. Pronotum unicolor or with faint traces of three longitudinal brown bands. Elytra with traces of brownish longitudinal bands on clavus and mesocorium; membrane pale brownish,

small hyaline spot at tip of cuneus, veins pale. Legs pale yellowish, femora with faint brown dots; tarsi dark.

Body small. Hair covering black. Head slightly broader than long; eyes rather small, ocular index 1.96 (♂) or 2.2–2.4 (♀). Proportions between antennal segments 9:29:25:10 (diatone 18.5 units) in ♂, 11:31:24:10 (diatone 19.5) in ♀; 1st segment in ♂ very incrassate, 2.33 × as long as thick, in ♀ somewhat slenderer, 2.67 × as long as thick, 2nd joint 1.57 (♂) or 1.6 (♀) × as long as diatone, 3rd joint 0.86 (♂) or 0.77 (♀) × as long as 2nd. Rostrum extending to middle coxae. Pronotum 2.1 × as broad as long in middle, lateral margins strongly diverging caudad, in ♂ insinuated in ♀ straight. Elytra and flying wings in ♂ much longer than abdomen, in ♀ as long as abdomen. 3rd joint of hind tarsus shorter than 2nd, proportions between joints 8:14:13. Claw in Fig. 8f.

Male genitalia (Fig. 9a–f) much as in the preceding species, but ventral margin of vesica in front of gonopore smooth.

Biology: In mountain meadows.

Material studied: Iraq: Dahuk, near Brozah, 1 ♂, holotype, 1 ♀ paratype, 13.V.1981; Diyala, Darbandikhan, 1 ♀ paratype, 13.V.1980, Linnavuori, in coll. Linnavuori.

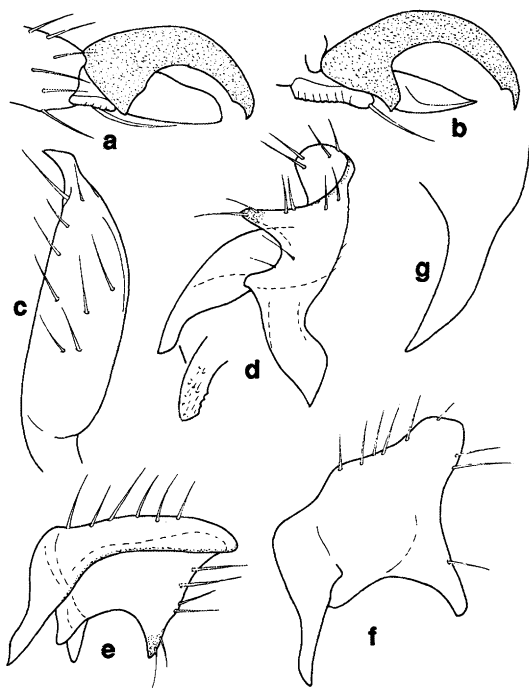


Fig. 10. — *Macrotylus hymenocratii* Puchkov.: a-b) claw (in a pseudarolium in broad aspect); c) right style; d-f) left style in different views; g) theca.

***Macrotylus hymenocratii* Puchkov**

Figs. 10a-g, 11a, 12a-c.

Macrotylus hymenocratii Puchkov, 1974: 78-79.

Length ♂ 4.25-4.75 mm, ♀ 4.5 mm. Shiny. Pale yellowish green. Eyes brown. Antennae yellow-brown or greenish, 1st, 3rd and 4th joints sometimes slightly embrowned. Membrane brownish hyaline, small pale spot at tip of cuneus, veins pale. Legs pale yellow-brown, femora with faint brown dots; tarsi dark.

♂ narrow, parallel-sided, ♀ broader. Hair covering black. Head slightly broader than long; eyes large, ocular index 1.33-1.38 (♂), 1.76 (♀). Antennae long and gracile, proportions between joints 9:30:20:10 (diatone 18 units) in ♂, 9:29:17:11 (diatone 18.5) in ♀; 2nd joint 1.70-1.83 (♂) or 1.60 (♀) x as long as diatone, 3rd joint 0.7 (♂) or 0.6 (♀) x as long as 2nd. Rostrum extending beyond hind coxae. Pronotum 1.9-2.1 x as broad as long in middle, lateral margins in ♂ distinctly, in ♀ slightly insinuated. Elytra and flying wings much longer than abdomen. Legs gracile. 3rd joint of hind tarsus dis-

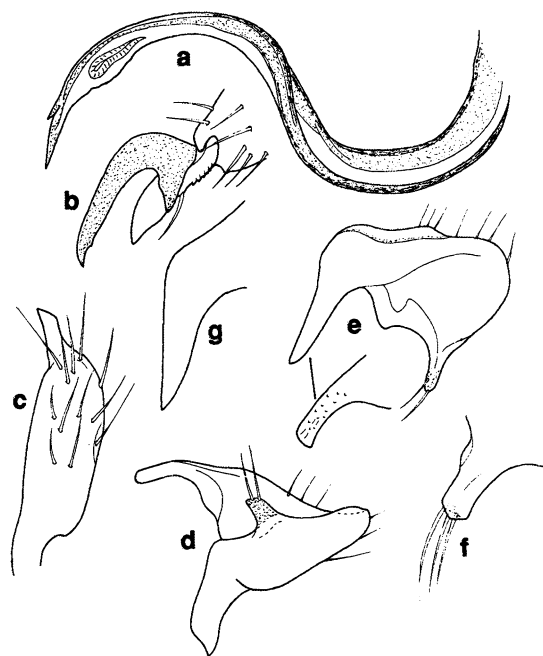


Fig. 11. — *Macrotylus hymenocratii* Puchkov.: a) vesica. — *M. breviostris* (Wagner): b) claw; c) right style; d-e) left style in different views; f) sensory lobe of same; g) theca.

tinctly shorter than 2nd, proportions between segments 9:15:12. Claw in Figs. 10a-b, 12c.

Male genitalia in Figs. 10c-g, 11a. Subapical process of vesica claw-like.

Biology: On *Hymenocrates bituminosa* Fisch. & Mey. (Labiatae).

Range: Turkestan.

Material studied: U.S.S.R.: Turkmenia, Kara-Kala (type locality), 5 exx, 29.IV.1973, 15.V.1974, V.G. Puchkov, in coll. Linnavuori.

***Macrotylus breviostris* (Wagner), comb. nov.**

Figs. 6h, 11b-g, 13a.

Prionotropis (*Jafara*) *breviostris* Wagner 1971:35-37.

Length ♂ 5.6-5.8 mm, ♀ 4.6-4.8 mm. Opaque. Pale grayish green. Eyes pale grayish brown. Antennae whitish ochraceous. Clavus and corium with faint brown dots; membrane pale smoky, veins pale. Legs whitish ochraceous, femora with faint brownish dots, tarsi dark.

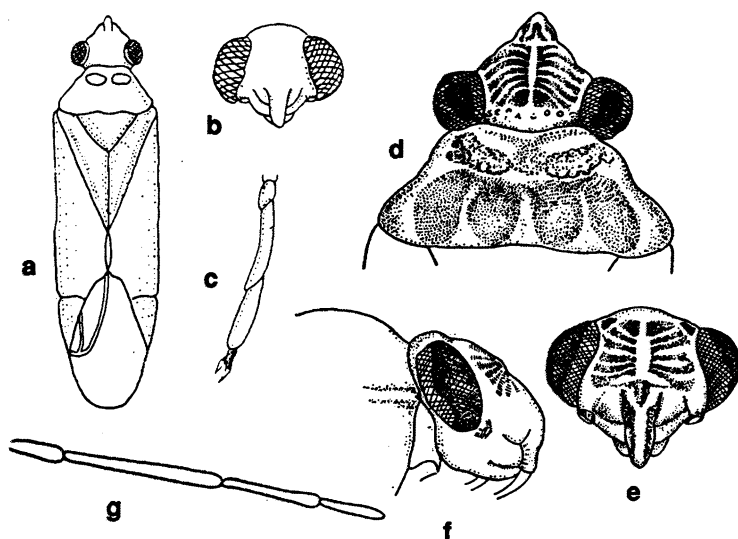


Fig. 12. — *Macrotylus hymenocratii* Puchkov.: a) ♂ in dorsal view; b) head, apical view; c) hind tarsus. — *Monocris griseola* Puchkov.: d) head and pronotum; e) head in apical; f) in lateral view; g) antenna. — After Puchkov 1974.

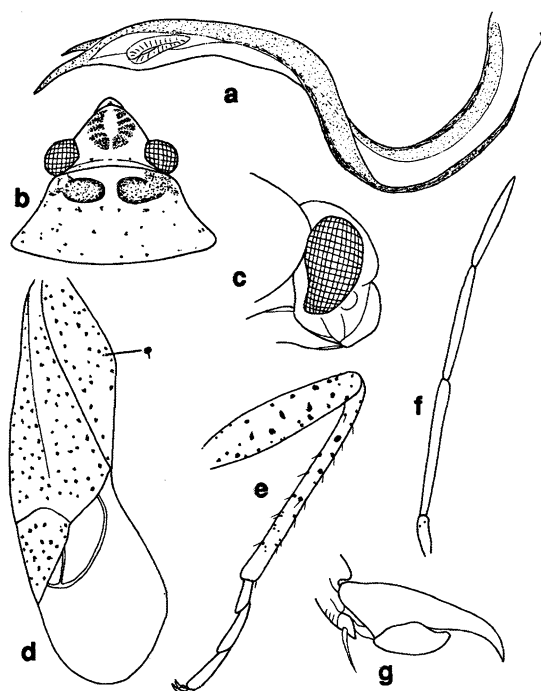


Fig. 13. — *Macrotylus brevivrostris* (Wagner): a) vesica. — *Monocris longicornis* sp.n.: b) head and pronotum; c) head in lateral view; d) elytron; e) hind leg; f) antenna (♂); g) claw.

Body long and gracile, parallel-sided. Hair covering on head, pronotum and scutellum pale, on elytra black. Head a little broader than long; eyes large,

ocular index 1.25 (♂) or 1.8–2.18 (♀). Antennae long and gracile, proportions between joints 9:34:26:12 (diatone 18.5 units) in ♂, 8:31:21:12 (diatone 18.5) in ♀, 2nd joint 1.84 (♂) or 1.70 (♀) x as long as diatone, 3rd joint 0.76 (♂) or 0.70 (♀) x as long as 2nd. Rostrum extending to middle coxae (♂) or to near hind coxae (♀). Pronotum about twice as broad as long in middle, lateral margins straight in both sexes. Elytra and flying wings much longer than abdomen. Legs long and gracile; 3rd joint of hind tarsus as long as 2nd, proportions between joints 8:14:14. Claw in Figs. 6h, 11b.

Male genitalia (Figs. 11c–g, 13a) much as in the preceding species, but dorsal margin of body of left style rounded (narrower, lobe-like in *hymenocratii*).

Biology: On *Hymenocrates incanus* Bunge.

Range: Iran.

Material studied: Iran: Fars Jafarabad, 33 km NW Abadeh (type locality), 3 exx, 13.V.1969, H. Eckerlein, in coll. Linnavuori.

4. On the genus *Monocris* Puchkov

Monocris Puchkov, 1974: 75–76; type species: *M. griseolus* Puchkov

Small, shiny, greenish species. Macropterous form unicolored, pale, even legs immaculate. Subbrachypterous form ornamented with fuscous dotting on upper surface and legs. Frons with transverse brown lateral arcs. Pronotum and scutellum often

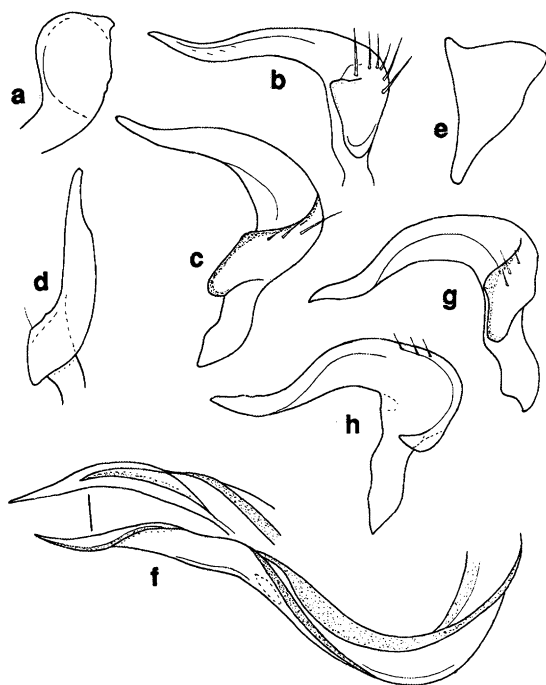


Fig. 14. — *Monocris longicornis* sp.n.: a) right style; b) left style in glycerine; c) same (dry); d) hyphophysis of same from above; e) theca; f) vesica. — *M. griseolus* Puchkov.: g-h) left style.

with sparse fuscous dotting. Elytra with dense fuscous spotting. Under surface immaculate. Legs pale ochraceous, femora and tibiae with brown spots, tibial spines brownish.

Body in macropterous form elongate, in sub-brachypterous form robust. Elytra with short hair covering. Head short and broad, in apical view distinctly broader than high, in lateral view shorter than high; tylus prominent, a shallow notch between the strongly convex frons and base of tylus; base of vertex indistinctly keeled laterally; eyes largish. Antennae gracile. Rostrum extending to hind coxae. Pronotum with strongly insinuated lateral margins, humeral angles prominent; calli conspicuous, \pm strongly elevated. Elytra and flying wings in sub-brachypterous form about as long as abdomen, in macropterous form much longer. Prosternal xyphus shallowly concave, margins keeled. Legs: tibial spines delicate, pale brown; proportions between hind tarsal joints 9:18:18, claws in Fig. 13 g.

Male genitalia: Right style very small. Left style with long and slender hypophysis, sensory lobe small, blunt. Theca short and broad. Vesica arcuate,

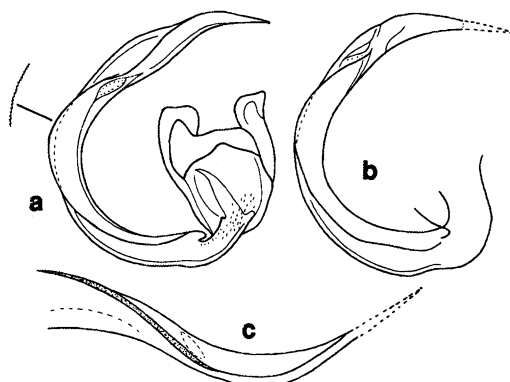


Fig. 15. — *Monocris longicornis* sp.n.: a) vesica (in slide). — *M. griseolus* Puchkov.: b) same (in slide); c) apex of same.

ending in a falcate apical process; secondary gonopore far from apex.

Range: Central Asia, Iraq.

Biology: In salt marshes on Chenopodiaceae halophytes.

A distinctive genus, apparently related to *Solenoxypus* Reuter, but readily distinguished by the shape of the head, the structure of the pronotum, the long 3rd hind tarsomere, and the structure of the genitalia.

Monocris longicornis sp.n.

Figs. 13b-e, 14a-f, 15a.

Length 3.25–3.5 mm f.macr., 2.5–3.0 mm f.pseudobrach. Shiny. F. macr. Either entirely immaculate, pale ochraceous, or with traces of fuscous dotting on elytra and legs; tibial spines brownish. F. pseudobrach. Pale greenish ochraceous. Sides and basal middle spot on tylus and lateral arcs on frons fuscous. Antennae pale ochraceous, 1st joint with two dark dots, sometimes base of 2nd joint also fuscous. Calli of pronotum sometimes dark, basal part of disk often with a few small fuscous dots. Concealed base of scutellum with four fuscous spots, which are often visible through the posterior part of the pronotum. Sides and apex of scutellum with tiny fuscous dots. Elytra densely ornamented with small setigerous fuscous dots; membrane pale brownish, veins concolorous. Under surface immaculate. Legs pale ochraceous, femora and tibiae with numerous fuscous spots, tibial spines dark.

F. macr. ♂. Body elongate. Eyes large, ocular index 1.40–1.45. Antennae long and gracile, proportions between joints 15:56:47:29 (diatone 45.5, basal width of pronotum 61 units), 2nd joint 1.22–1.23 x

as long as diatone. Elytra and flying wings much longer than abdomen. F. pseudobrach. Body robust, parallel-sided. Ocular index 1.74–1.81 (♂), 2.34–2.43 (♀). Antennae long and gracile, proportions between joints 16:57:49:27 (diatone 42, basal width of pronotum 57 units) in ♂, 15:41:40:23 (diatone 44.5, basal width of pronotum 60 units) in ♀, 2nd segment 1.30–1.36 (♂) or 1.14–1.15 (♀) × as long as diatone. Pronotum (also in f.macr.) > twice as broad as long in middle, lateral margins strongly insinuated, humeral angles prominent, calli elevated. Elytra and flying wings in ♂ a little longer than abdomen, in ♀ as long as abdomen.

Male genitalia in Figs. 14a–f, 15a. Hypophysis of left style long and slender. Vesica robust, apical part relatively short, ventral margin behind gonopore finely serrate.

Biology: On an unidentified halophyte in a salt marsh.

Material studied: Iraq: Dhi Qar, Nasiriyah–Abu Ghar, 1 ♂, holotype, numerous paratypes, 15.IV.1980, Linnavuori, in coll. Linnavuori.

Monocris griseolus Puchkov

Figs. 12d–g, 14g–h, 15b–c.

Monocris griseolus Puchkov, 1974: 73–79.

Smaller, length 2.6–3.1 mm. 1st antennal segment often blackish. Eyes somewhat larger, ocular index 1.70 (♂), 2.09–2.14 (♀). Antennae much shorter and thicker, proportions between joints 15:47:35:21 (diatone 43.5, basal width of pronotum 55 units) in ♂, 14:43:30:19 (diatone 44.5, basal width of pronotum 62 units) in ♀; 2nd segment 1.08 (♂) or 0.97–0.98 (♀) × as long as diatone.

Male genitalia in Figs. 14g–h, 15b–c. Hypophysis of left style shorter and thicker. Vesica slenderer, apical part long and thin, ventral margin behind gonopore smooth.

Biology: On *Salsola rigida* Pall.

Range. Turkistan.

Material studied: U.S.S.R.: Turkmenkaja S.S.R., Kazandžiskii r. po. Ahča-Kuima, 4 exx, 4.V.1973, V. Puchkov, in coll. Linnavuori.

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