

# On the family Miridae (Het.)

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This paper consists of remarks on the *incanus*, *zarudnyi* and *lineaticollis* groups of the genus *Phytocoris* Fn. Three new species, *P. aietes* (Iran), *P. kerzhneri* (Iran) and *P. eileithya* (U.S.S.R.), are described. In addition the taxonomy of the genera *Strophylus* Wgn. and *Pleuroxonotus* Rt. is discussed. Two new species, *Strophylus erinys* (the Sudan) and *S. lineatus* (South Yemen), are described and *Pronototropis longicornis* Rt. is transferred to the genus *Pleuroxonotus*.

## On the genus *Phytocoris* Fn.

### 1. *P. incanus* Fb.

I have recently (LINNAVUORI 1970, p. 93–95) treated the taxonomic status of *P. sahlbergi* Rt. and *P. pinkeri* Wgn. of the *incanus* group. At the time, the genuine *P. incanus* was unknown to me. I have now been able to obtain a male and female of this species from Austria, making the following comparison possible:

1. Length of body ♂ f.macr. 6.5 mm., ♀ f.brach. 4.9 mm. The male studied is somewhat slenderer than the male of *P. sahlbergi*.

2. Ratio between 1st antennal joint and diatone 1.11 (♂) or 1.13 (♀). The male agrees with *sahlbergi*, while in the female the 1st antennal joint is shorter. In *pinkeri* the 1st joint is longer in both sexes.

3. Ratio between 2nd antennal joint and basal width of pronotum 1.38 (♂) or 1.85 (♀). Agreeing with *sahlbergi*.

4. Ocular index 1.48 (♂) or 2.0 (♀). Agreeing with *sahlbergi*.

5. Left stylus (Fig. 1 b–c).

6. Comb-shaped spiculum of vesica (Fig. 1 a) not so broad as in the others (length 26 units, breadth 8 units), but somewhat more curved and provided not only with two large apical teeth, but also with a very small third tooth, fused to the body of the spiculum therefore indicated only as a transverse stria in the others (WAGNER 1968 has also figured three separate teeth in *sahlbergi*, however).

The comparison seems to confirm my opinion that all three forms are conspecific. Both *P. pinkeri* Wgn. and *P. sahlbergi* Rt. can apparently be regarded as geographical races of *P. incanus*.

### 2. The *zarudnyi* group of the subgenus *Eriamiris* Wgn.

A study of the material of *P. zarudnyi* Rt. in Mus. Leningrad and Mus. Helsinki revealed that Reuter's type series is a mixture of two species. Moreover, in the *zarudnyi* material of the Stuttgart Museum a third species of the group was detected. These species can be distinguished as follows:

### *P. zarudnyi* Rt.

Length 6.7 mm.

1. Colouring greyish ochraceous, with a faint but relatively distinct brownish pattern: Head with some brown lateral arcs on either side; 1st antennal joint only indistinctly marked with dark; pronotum with traces of longitudinal brownish marking; clavus, corium, cuneus and membrane with dense brownish irroration; femora with brownish irroration; tibiae with faint darker rings.

2. Lorae (Fig. 2 a–c) strongly prominent, bearing a distinct apical knob; ocular index (♂) 1.0–1.06, eyes remarkably large.

3. Proportions between antennal joints (♂) 33:55:36:13, 1st joint  $1.27 \times$  as long as diatone, 2nd  $1.56 \times$  as long as basal width of pronotum.

4. Pronotum about  $1.4 \times$  as broad as head.

5. Pygophore as in the other species.

6. Right stylus (Fig. 3 a) narrow, blade-shaped.

7. Left stylus (Fig. 3 e) with a long and slender hypophysis.

8. Comb-shaped spiculum of vesica as in Fig. 5 b.

Material studied: Iran, Kjafrkala, r. Gerirud, Chorasán, 9. IV. 1898, 3 ♂ co-type, Zarudny. Of them 1 ♂ co-type in Mus. Leningrad is here selected as the lectotype; the other two cotypes exist in coll. Reuter

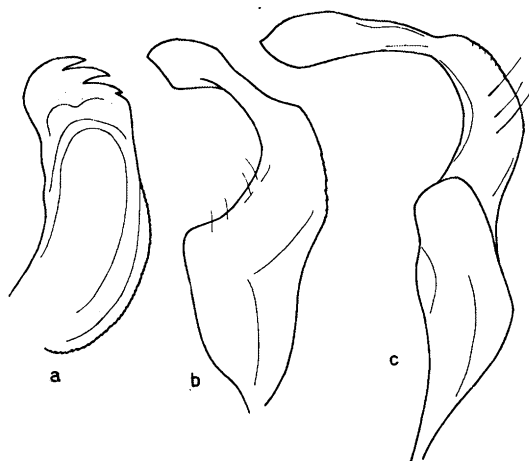


Fig. 1. *Phytocoris incanus* Fb.: a comb-shaped spiculum of vesica; b – c left stylus. — Orig.

in Mus. Helsinki. The latter collection also contains a ♂ from Transcaspia, leg. Ahnger.

As pointed out above, Reuter's type series of *P. zarudnyi* consists of two species. Since the original description (REUTER 1904 b, p. 8) agrees somewhat better with the darker-coloured species, I have regarded it as the genuine *zarudnyi*.

The species is easily recognized by the peculiarly shaped lorae, the large eyes and the male genitalia.

#### *P. aietes* sp.n.

Length 6 – 5 – 6.7 mm.

1. Colouring greyish ochraceous, with dense and distinct brownish pattern: Head with distinct brown lateral arcs and a broken dark midline, and, in addition, vertex with two longitudinal curved fulvous bands; 1st antennal joint with numerous distinct blackish brown spots; pronotum with intense dark irroration, nearly concealing the pale ground colouring, visible only as irregular small spots on disk; basal margin pale, bordered with irregular dark brown band; scutellum with diffuse brown irroration; elytra as in *zarudnyi*, but brown irroration denser and more distinct, making the insect appear distinctly darker than *zarudnyi*;

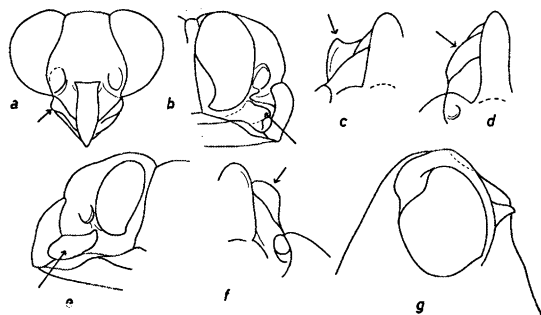


Fig. 2. *Phytocoris zarudnyi* Rt.: a head, apical view; b same, in profile; c left side of apex of head, dorsal view (lorum indicated with arrow). — *P. kerzhneri* sp.n.: d same; e head in profile; g pygophore. — *P. aietes* sp.n.: f right side of apex of head in dorsal view. — Orig.

femora with distinct blackish irroration; tibiae with blackish rings and spots.

2. Lorae (Fig. 2 f) strongly but regularly swollen; ocular index (♂) 1.18 – 1.38.

3. Proportions between antennal joints 35: 77:40:?, 1st joint  $1.3 \times$  as long as diatone, 2nd  $1.83 \times$  as long as basal width of pronotum.

4. Pronotum nearly  $1.6 \times$  as broad as head.

5. Pygophore as in the other species.

6. Right stylus (Fig. 3 b) nearly as in *zarudnyi*.

7. Hypophysis of left stylus (Fig. 4 a ♂ b) strongly bent laterad, delimited basally with a strong broadly rounded hump.

8. Comb-shaped spiculum of vesica in Fig. 5 c.

Material studied: Iran, Makran, SE of Nahu, 1300 m., 1 ♂, type (Mus. Stuttgart) and 1 ♂ paratype (my collection), 19. – 26. III. 1954, Richter & Schäuuffele recorded as *P. zarudnyi* by WAGNER 1957, p. 76).

Styli of the related *P. brevirostris* Wgn. from the same locality are figured in Fig. 6 a – c, those of another dark, although not closely related, Iranian species, *P. calliger* Wgn., in Fig. 6 d – f. *P. scapatus* Wgn. (Morocco) differs from *P. aietes* in the considerably longer 1st antennal joint ( $1.5 \times$  as long as diatone) and the dissimilarly shaped left stylus.

#### *P. kerzhneri* sp.n.

Length 6.5 – 7 mm.

1. Colouring yellowish ochraceous or whitish

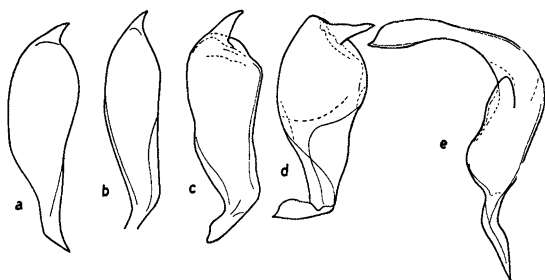


Fig. 3. Right stylus in broad aspect of *Phytocoris zarudnyi* Rt. a, *P. aietes* sp.n. b, *P. kerzhneri* sp.n. c - d. — Left stylus of *P. zarudnyi* e. — Orig.

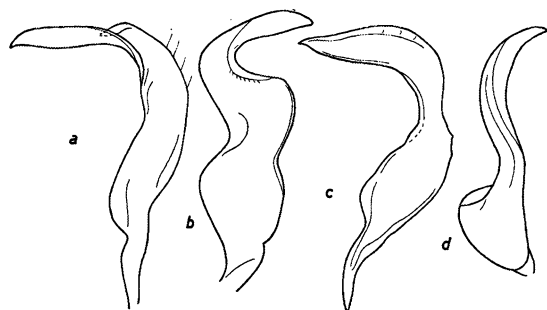


Fig. 4. Left stylus of *Phytocoris aietes* from side and from behind sp.n. a - b, *P. kerzhneri* sp.n. c - d. — Orig.

yellow; dark irroration of upper surface very reduced and indistinct, sometimes almost absent; 1st antennal joint with indistinct brownish spotting; callal area of pronotum more yellowish; femora with faint brownish irroration, dark rings of tibiae indistinct.

2. Lorae (Fig. 2 d ø e) regularly and relatively weakly swollen; ocular index ( $\delta$ ) 1.43 - 1.70.

3. Proportions between antennal joints 31:62:36:?, 1st joint  $1.27 - 1.3 \times$  as long as diatone, 2nd  $1.6 - 1.63 \times$  as long as basal width of pronotum.

4. Pronotum  $1.6 \text{ } \emptyset \text{ } 1.7 \times$  as broad as head.

5. Pygophore in Fig. 2 g.

6. Right stylus (Fig. 3 c ø d) much broader than in the other species.

7. Hypophysis of left stylus (Fig. 4 c ø d and Fig. 5 a) blade-shaped, strongly constricted basally.

8. Comb-shaped spiculum of vesica in Fig. 5 d - e.

Material studied: Iran, Baluchistan, Kaljapošt, Sarbaz, 2 ♂ paratypes (cotypes of *zarudnyi*) (Mus. Leningrad, Mus. Helsinki), 25. II. 1901, Zarudny. Baluchistan, Iranshar, 1 ♂, type, communicated by Mr. W. Richter, in my collection, 1. - 21. IV. 1954, Richter & Schäuffele. Iran, Makran, Kahuran near Putab, 1 ♂ paratype (Mus. Stuttgart), 25. III. 1954, Richter & Schäuffele.

Easily recognized by the pale colouring, the relatively weakly raised lorae and the male genitalia.

The species is dedicated to my friend, Dr.

I. M. Kerzhner, of Leningrad, in recognition of his fine work on the Heteropterous fauna of the U.S.S.R.

### 3. The *lineaticollis* group.

The *lineaticollis* group of the genus *Phytocoris* has as Irano-Turanian range. It consists of four species, *lineaticollis* Rt., *semicrux* Wgn., *eileithya* n.sp. and *schaeuffelei* Wgn. Moreover, *P. undulatus* Rt. and *P. cretaceus* Rt. seem to be related to the group. WAGNER (1969, p. 34) has tentatively regarded the group as belonging to the subgenus *Soosocapsus* Wgn. They differ, however, from typical representatives of *Soosocapsus* in the colour pattern, the more gracile antennae, the smooth basal margin of the pronotum (provided with tubercles, however, in *undulatus*), and in the male genitalia (trend towards forming a lateral tubercle on pygophore, peculiar structure of the comb-shaped spiculum of vesica and structure of left stylus in some species). However, I do not propose a new subgeneric name for the group.

An interesting feature of the group is the insinuation of the basal margin of the pronotum in *schaeuffelei*, *eileithya* and *semicrux*. The insinuation is strongest in the first species, in which it resembles that found in the monotypic genus *Eremobiellus* Rt. (a couple of specimens of the genotype, *E. sinuosus* Rt., were studied). Since the insinuation of the basal margin of the pronotum is the only difference between *Eremobiellus* and *Phytocoris*, it seems justified to regard

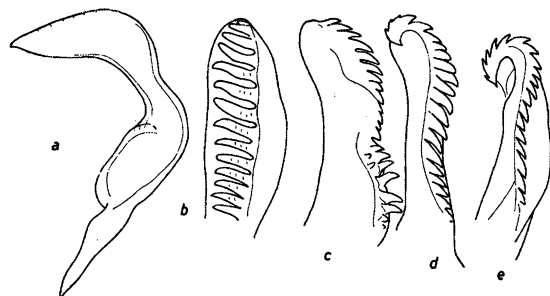


Fig. 5. *Phytocoris kerzhneri* sp.n.: a left stylus. — Comb-shaped spiculum of vesica of b *P. zarudnyi* Rt. c *P. aietes* sp.n., d – e *P. kerzhneri*. — Orig.

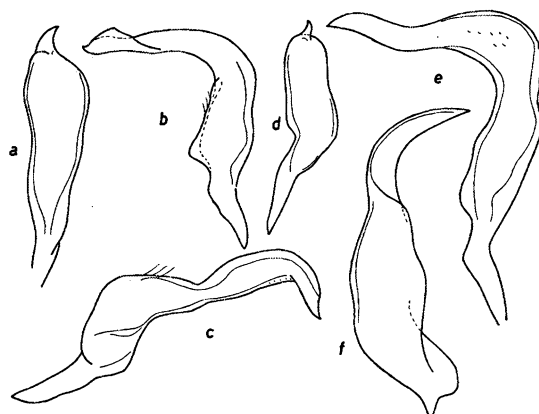


Fig. 6. *Phytocoris breviostris* Wgn.: a right stylus; b left stylus from side; c same from behind. — *P. calliger* Wgn.: d – f same. — Orig.

them as congeneric. *Eremobiellus*, however, is not closely related to the *lineaticollis* group and apparently represents a subgenus of its own.

### Key to the species

- 1 ( 4) Pronotum with a contrasted pattern consisting of a narrow whitish midline, joined basally to the likewise narrowly whitish basal margin, all these whitish bands being distinctly bordered with dark brown ..... 2
- 2 ( 3) Length 6.7 – 7.75 mm. Ground colouring yellow-brown; elytra with longitudinal dark brown dashes and scanty indistinct dark irroration; cuneus pale, with scanty irroration. Ocular index ( $\delta$ ) 1.03. 1st antennal joint ( $\delta$ ) 1.5  $\times$  as long as diatone, slightly shorter than basal width of pronotum (44:47), 2nd joint 1.55  $\times$  as long as basal width of pronotum. Pronotum 1.9  $\times$  as broad as long. Pygophore with an obtuse tubercle on left side. Left stylus (Fig. 9 a) regularly curved. Comb-shaped spiculum of vesica in Fig. 9 b ..... sp.n. near *lineaticollis* Rt. (Iran)
- 3 ( 2) Length 5.5 – 6 mm. Ground colouring brown. Elytra brown, veins pale, cuneus unicoloured brown. Ocular index ( $\delta$ ) 1.10 – 1.17. 1st antennal joint ( $\delta$ ) 1.4  $\times$  as long as diatone, 2nd 1.5  $\times$  as long as basal width of pronotum. Pygophore as in *lineaticollis*. Left stylus with a strongly produced, dentate sensory lobe. Comb-shaped spiculum of vesica with a claw-like basal appendage ..... *semicrux* Wgn. (Iran)
- 4 ( 1) The *lineaticollis* pattern of pronotum absent or poorly developed ..... 5
- 5 ( 6) 1st antennal joint ( $\delta$ ) 0.9  $\times$  as long as diatone, 2nd 1.35  $\times$  as long as basal width of pronotum. Length of body 5.25 mm. Ocular index ( $\delta$ ) 1.83. Left stylus and comb-shaped spiculum in Fig. 9 c – d ..... *cretaceus* Rt. (Transcaspia)
- 6 ( 5) Antennae considerably longer ..... 7
- 7 ( 8) Basal margin of pronotum with 4 dark tubercles. Body relatively broader, length 5.75 mm. General colouring pale greyish ochraceous, with scanty dark irroration. Ocular index ( $\delta$ ) 1.84. 1st antennal joint 1.18  $\times$  as long as diatone, 2nd 1.48  $\times$  as long as basal width of pronotum. Pygophore (Fig. 10 a – b) with a long bifurcate process on left side. Shape of left stylus (Fig. 10 c) unique, sensory lobe strongly produced, dentate. Comb-shaped spiculum in Fig. 10 d ..... sp.n. near *undulatus* Rt. (Turkestan, Iran)
- 8 ( 7) Basal margin of pronotum smooth, bordered with dark fuscous. Darker and more gracile species ..... 9
- 9 (10) Antennae very long; 1st joint 1.6  $\times$  as long as diatone, slightly longer than basal width of pronotum; 2nd joint twice as long as basal width of pronotum. Pronotum with a faint *lineaticollis* pattern ..... *eileithya* sp.n.
- 10 ( 9) Antennae shorter; 1st joint 1.21 – 1.22  $\times$  as long as diatone, 0.7  $\times$  as long as basal width of pronotum; 2nd joint 1.7  $\times$  as long as basal width of pronotum. Pronotum without a whitish midline ..... *schauffelei* Wgn. (Iran)

The taxonomy of the genuine *lineaticollis* Rt. and *undulatus* Rt. will be treated elsewhere. Also both new species mentioned in the key will be described in this connection.

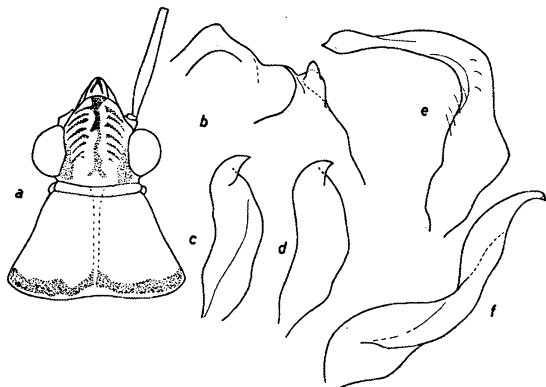


Fig. 7. *Phytocoris eileithya* sp.n.: a head and pronotum; b left side of pygophore, dorsal aspect; c - d right stylus; e left stylus from side; f same from behind. — Orig.

*P. eileithya* sp.n.

Length 6.25 mm. Ground colouring whitish grey. Tylus (Fig. 7 a) with Y-shaped black median stripe, margins of lorae darkened; frons and vertex with a blackish,  $\pm$  vermiculate median band, more distinct apically, frons with 7 pairs of regular and distinct brown lateral arcs, vertex laterally largely embrowned. 1st antennal joint black, with some whitish spots, bristles pale; 2nd joint basally darker, apically yellowish brown, with a narrow whitish basal ring; other joints yellow-brown. Pronotum dirty reddish brown, with a faint, not contrasted whitish median line; basal margin narrowly whitish, irregularly bordered with dark brown. Scutellum dark yellowish brown, with basal angles and a median figure, consisting of a larger basal spot and two faint median longitudinal stripes, darker brown. Elytra whitish grey, with rather dense, dark irroration, Cu dark brown; membrane milky, with fine dark irroration; apico-lateral margin with two larger dark spots; veins pale. Propleurae with two longitudinal black stripes. Meso- and metathorax largely blackish brown. Femora heavily marked with blackish, the dark colouring appearing to consist of longitudinal stripes. Tibiae with dark spots, the pale colouring dominant, the dark markings not concentrated into distinct rings, spines pale, tarsi embrowned.

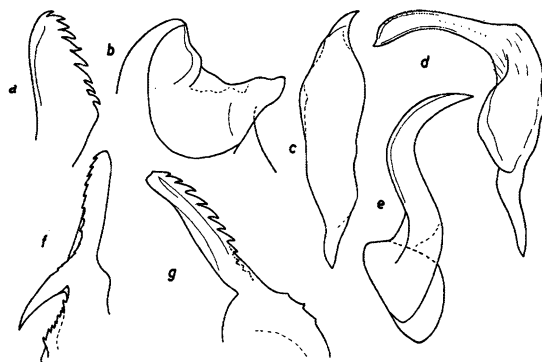


Fig. 8. *Phytocoris eileithya* sp.n.: a comb-shaped spiculum of vesica. — *P. schaeuffelei* Wgn.: f - g same; b pygophore, dorsal aspect; c right stylus; d - e left stylus. — Orig.

Body gracile, about  $4.6 \times$  as long as broad at base of pronotum. Hair covering of upper surface consisting of both pale and dark hairs, the latter more erect. Head in profile longer than high (18:15), without a deep sulcus between frons and tylus, in apical view slightly broader than high (24:22); ocular index 1.7 ( $\sigma$ ). Antennae remarkably long and gracile; proportions between joints 38:73:35:?, 1st joint gracile,  $1.6 \times$  as long as diatone, slightly longer than basal width of pronotum (38:36); 2nd joint twice as long as basal width of pronotum. Rostrum slightly beyond hind coxae. Pronotum narrow and convex,  $1.5 \times$  as broad as head,  $1.64 \times$  as broad as long; lateral and basal margins shallowly insinuated. Elytra extending well beyond abdomen. Male genitalia in Fig. 7 b - f and Fig. 8 a.

Material studied: U.S.S.R., Armenia, Migryi na Arakse, 1  $\sigma$ , type (in my collection), 5. VII. 1931, Rjabov.

Very near to *P. schaeuffelei* Wgn. (Iran), but differing in the more contrasted colour pattern of head and pronotum, the much longer antennae, and the male genitalia (lateral tubercle of pygophore much smaller and comb-shaped spiculum of vesica broader). *P. schaeuffelei*: ocular index 1.43 - 1.46 ( $\sigma$ ); 1st antennal joint  $1.21 - 1.22 \times$  as long as diatone,  $0.7 \times$  as long as basal

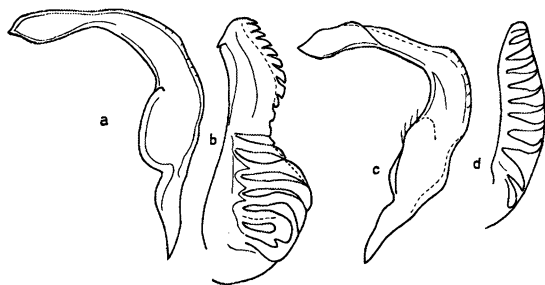


Fig. 9. *Phytocoris lineaticollis* Rt.: a left stylus; b comb-shaped spiculum of vesica. — *P. cretaceus* Rt.: c — d same. — Orig.

width of pronotum, 2nd joint  $1.6 \times$  as long as basal width of pronotum. Pronotum somewhat broader and less convex. Male genitalia in Fig. 8 b–g.

#### The genus *Stirophylus* Wgn.

The genus *Stirophylus* was recently described by WAGNER (ECKERLEIN & WAGNER 1965, p. 232–234). The original description, not reproduced here, requires a couple of corrections: The anterior lobe of the pronotum is medially concave between the faintly raised calli, but the very anterior margin does not form a collar-like elevation («ein Wall, der wie ein Halsring aussieht»), as recorded by Wagner. The scutellum is also of normal shape, and provided with a transverse furrow, but not with a transverse ridge («Scutellum hinter der Basis mit einer Querrille, die hinten von einem Kielartigen Wall begleitet wird, der an den Seiten kräftiger ist»). Wagner's error depends upon the fact that the specimens studied have apparently been teneral and, on the other hand, long preservation in strong ethyl acetate has led to shrinking, often found in specimens derived from Eckerlein's collection.

The genus consists of three grass-feeding species, with an Eremian range, two of which are new and are described. *Stirophylus* closely resembles the genus *Taeniophorus* Lv. (LINNAVUORI 1952, p. 36–37), which, in fact, is not a close relative of the genus *Icodema* Rt., although

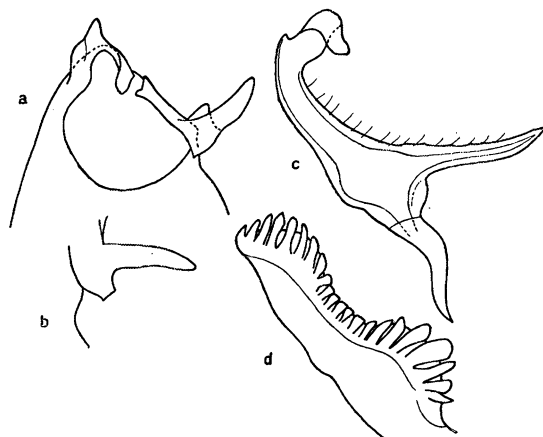


Fig. 10. *Phytocoris* sp.n. near *undulatus* Rt.: a pygophore, dorsal aspect; b lateral process of same; c left stylus; d comb-shaped spiculum of vesica. — Orig.

stated to be so in the original description. *I. infuscatum* (Fb.), the only known species of the genus, is Mediterranean and lives on oaks. *Taeniophorus* resembles *Amblytulus* Fb., most species of which are also grass-feeders, in its large pseudarolia (Fig. 11 f) and rather strongly prominent tylus (Fig. 12 c), but differs in its small size, the shape of the pronotum, etc. *Stirophylus*, on the other hand, differs from both *Amblytulus* and *Taeniophorus* in the small pseudarolia (Fig. 11 e) and in the unique shape of the vesica, which is provided with a broad, marginally serrate lamella, strongly expanded near the gonopore. The male genitalia of all known species of *Stirophylus* are very similar.

#### *S. aristidae* Wgn.

1. Length 2.75–3.45 mm.
  2. Colouring uniformly whitish ochraceous, membrane milky.
  3. Head (Fig. 11 c–d, Fig. 12 a) broader and shorter, much blunter apically than in the other species; tylus in profile strongly sloping ventrad, its apical margin almost vertical; ocular index 1.71–1.81 (♂), 2.63–2.9 (♀).
  4. Antennae shorter, 2nd joint  $0.93$  (♂) or  $1.0$  (♀)  $\times$  as long as basal width of pronotum.
  5. Rostrum to hind coxae or slightly beyond.
- Material studied: Algeria, 110 km. south of Biskra, Chott Merouane, 2 exx., 28. IV. 1964, Eckerlein. Sudan, Northern Province, Ed Damer, 1 ex., 5. – 10. VII. 1961

and Shendi, some, 2. - 5. XI. 1962, Linnavuori. Host: *Aristida acutiflora*.

*S. erinys* sp.n.

1. Length 3 - 3.25 mm.

2. Colouring whitish. Upper surface with traces of fulvous pattern as in *lineatus*, but the fulvous bands much fainter and more irregular, the lateral bands of pronotum (Fig. 12 d) distinctly diverging caudad, much narrower than the intermediate pale bands. Development of brown pigment: at most membrane with faint brown irroration.

3. Head (Fig. 11 a - b, Fig. 12 b) more acuminate apically; tylus in profile less strongly sloping ventrad, its apical margin not vertical; ocular index 1.74 - 1.8 ( $\sigma$ ), 2.5 - 2.7 ( $\varphi$ ).

4. Antennae longer, 2nd joint 1.0 ( $\sigma$ ) or 1.23 - 1.27 ( $\varphi$ )  $\times$  as long as basal width of pronotum.

5. Rostrum distinctly beyond hind coxae.

6. Male genitalia (Fig. 12 g, Fig. 13 f - i) much as in *aristidae*. Theca simple.

Material studied: Sudan, Northern Province, Ed Damer, 1  $\sigma$ , type and some paratypes, 5. - 10. VII. 1961; Shendi, 1 paratype, 2. - 5. XI. 1962. Sudan, Kassala Province, Erkowit, some paratypes, 5. - 10. VII. 1961; 1962, Linnavuori. Types in my collection.

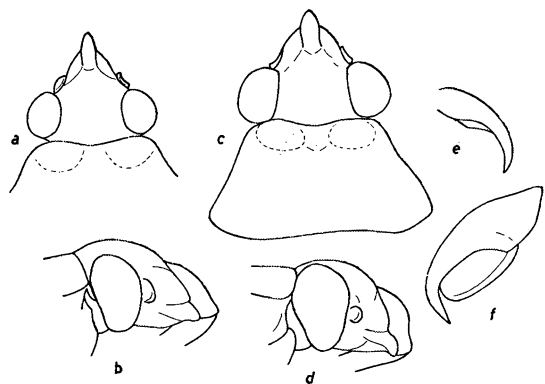


Fig. 11. *Stirophylus erinys* sp.n.: a head ( $\sigma$ ) from above; b same in profile. — *S. aristidae* Wgn.: c - d same. — *S. lineatus* sp.n.: e claw. — *Taeniphorus hyalinus* Lv.: f same. — Orig.

*S. lineatus* sp.n.

1. Length 2.5 - 2.75 mm.

2. Colouring whitish, with distinct orange markings; head tinged with orangish on either side, only a narrow midline whitish. Pronotum (Fig. 12 e) with 4 parallel longitudinal orange lines at least as broad as the intermediate whitish bands, these bands continuing on to scutellum, forming there two distinct median bands and a triangular spot in either basal angle. Elytra with 3 parallel longitudinal orange bands, one in clavus, two in corium; commissural margin of clavus also narrowly orange, costal margin and cuneus tinged with same colour; the orange bands giving to the upper surface a striated appearance. Antennae and legs also with orangish tinge. 1st antennal joint with dilute red markings, sometimes also tibiae basally with traces of dilute red dots. Trend to development of dark pigment: pronotum with obscure brown irroration; median margin of cuneus and inner apical angle of corium with fuscous spots; membrane with dense and distinct dark brown irroration.

3. Head acuminate apically, apical margin of tylus in profile not vertical; ocular index 1.41 ( $\sigma$ ) or 1.85 - 2.15 ( $\varphi$ ).

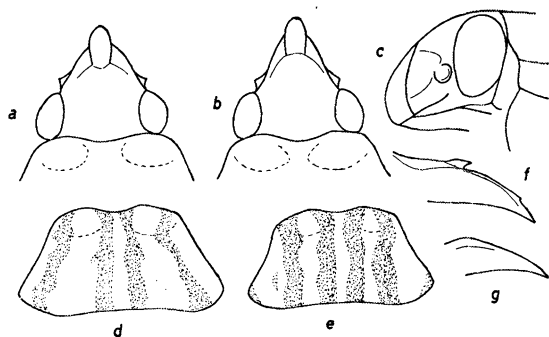


Fig. 12. *Stirophylus aristidae* Wgn.: a head ( $\varphi$ ) from above. — *S. erinys* sp.n.: b same; d pattern of pronotum; g theca. — *S. lineatus* sp.n.: e pattern of pronotum; f theca. — *Taeniphorus hyalinus* Lv.: c head ( $\varphi$ ) in profile. — Orig.

4. Antennae long, 2nd joint in both sexes  $1.21 - 1.3 \times$  as long as basal width of pronotum.

6. Rostrum long, extending beyond middle of venter, often near to apex of abdomen.

7. Male genitalia in Fig. 12 f and Fig. 13 a-e. Theca provided with a small basal tooth.

Material studied: South Yemen, Lahej-Dhala road, 1 ♀, type and some paratypes, 13.-14. VII. 1963, Linnavuori. Types in my collection. On *Aeluropus littoralis* in inland dunes.

### The genus *Pleuroxonotus* Rt.

The genus *Pleuroxonotus* was described by REUTER in 1904. The generotype, *P. nasutus* Rt., was known as a single female from Aschabad in Transcaspia. As far as I am aware, the species has never been found since. In an unidentified Heteropterous collection already in my possession for several years I have found two females from the same locality. Some time ago I had time to examine the specimens more carefully and at first regarded them as *Pronototropis longicornis* Rt., a widespread Eremian species, but soon found certain important differences. The type of *Pleuroxonotus nasutus*, a relatively fragmentary female in the Helsinki Museum, proved to be identical with my specimens. *Pronototropis longicornis* is undoubtedly also a *Pleuroxonotus*. Since the generotype of *Pronototropis*, *P. punctipennis* (Fb.), differs in many respects from *Pleuroxonotus*, the last-named is evidently a valid genus and not a synonym of *Pronototropis*.

Both genera are characterized by a prominent tylus and by the shape of the pronotum: lateral margins sharp and  $\pm$  lamellate; anterior part of disk with a median keel, otherwise depressed around the distinctly elevated calli. The tibial spines are short and black, the claws (Fig. 15 a, Fig. 16 e) rather long and gracile, with the pseudarolia small, not extending to the middle of the claw.

*Pleuroxonotus* somewhat resembles certain species of the genus *Amblytylus* Rt., but can be immediately distinguished by the structure of the claws, which in *Amblytylus* are shorter and thicker and provided with much larger pseudarolia, extending beyond the middle of the claw. *Roudairea* Rt. (type: *R. crassicornis* Rt.) is apparently a related genus, in which the tylus is also very prominent. In *R. eckerleini* Wgn. the shape of the pronotum also somewhat resembles that of *Pleuroxonotus* (lateral margins sharp and sublamellate, elevated calli, a trace of a median keel). Incidentally, a series of specimens of *R. eckerleini*, received from Dr. Eckerlein, also contained two specimens of *Pleuroxonotus longicornis*, found together with the former species on the same host, *Launea resedifolia*, on which *R. crassicornis* has also been found in Algeria. *Roudairea* differs, however, in the larger and robuster body, the remarkably thicker antennae, the shorter and broader head, the shorter and thicker legs, the more convex pronotum, etc.

The short and simple vesica of *Pronototropis* differs considerably from the common type of this group of genera. The genus is certainly closely related to *Pleuroxonotus*, however.

The genera *Pronototropis* and *Pleuroxonotus* can be characterized as follows:

### *Pronototropis* Rt.

1. Body smaller and robuster.
2. Shiny greyish ochraceous, with well developed dark pigment: 1st antennal joint and base of 2nd with dark spots. Elytra densely covered with dark setigerous dots, more distinct in ♂. Femora densely spotted with dark brown, tibiae with distinct dark spots. In ♂ dark pigment also present on head, pronotum, scutellum and under surface.

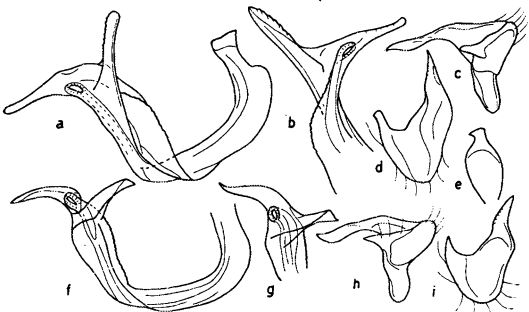


Fig. 13. *Stirophylus lineatus* sp.n.: a - b vesica; c left stylus from side; d same from above; e right stylus. — *S. erinys* sp.n.: f - g vesica; h - i left stylus. — Orig.



3. Hair covering black, long and semi-erect.
4. Head (Fig. 14 b) shorter and broader, tylus in profile nearly vertical.
5. Antennae short and incrassate, 2nd joint  $1.4 (\sigma)$  or  $< 1.0 (\varphi) \times$  as long as diatone; hair covering of joints long, black, semi-erect.
6. Rostrum shorter, extending only slightly beyond fore coxae.
7. Lateral margins of pronotum distinctly insinuated, in both sexes only narrowly lamellate, disk more convex.
8. Legs shorter, their hair covering longer and more semi-erect.

9. Right stylus (Fig. 15 b) with a T-shaped hypophysis, theca (Fig. 15 d) shorter, vesica (Fig. 15 e) rather small, relatively straight, of equal width throughout, without a claw-like apical process.

Monotypic (type: *Oncotylus punctipennis* Fb.). The only known species has a Caspian range, occurring in southern U.S.S.R., Transcaspia and Turkestan. Host: *Chorispora tenella* (Cruciferae).

#### *Pleuroxonotus* Rt.

1. Body longer and narrower, elytra longer.
2. Rather opaque. Uniformly whitish or greenish yellow, elytra only rarely with indistinct brown spots. Femora with faint brown spots, tibiae immaculate.
3. Hair covering shorter and smoother, less distinct.
4. Head (Fig. 14 a and c) considerably longer, sloping less strongly apicad, tylus less suddenly declivous.
5. Antennae long and gracile, 2nd joint in both sexes  $> 1.4 \times$  as long as diatone, hair covering of joints shorter and smooth.
6. Rostrum longer, extending distinctly beyond fore coxae.
7. Pronotum (Fig. 4 a) depressed, lateral margins nearly straight, in  $\varphi$  rather broadly lamellate and distinctly upcurved, in  $\sigma$  only narrowly lamellate.
8. Legs long and gracile, their hair covering smooth.
9. Right stylus (Fig. 16 b) with narrower hypophysis, theca (Fig. 16 d) long, vesica (Fig. 16 a) well developed, longer and distinctly curved, ending in a claw-like apical process.

The two known species closely resemble each other; the main differences are mentioned below.

#### *P. nasutus* Rt.

$\varphi$ . Fig. 14 a. Head shorter,  $1.3 \times$  as broad as long, in lateral view  $1.33 \times$  as long as high. Vertex broader, ocular index 2.0.

Antennae shorter, proportions between joints 12:35:28:12, 2nd joint  $1.35 - 1.46 \times$  as long as diatone,  $0.8 - 0.9 \times$  as long as basal width of pronotum.

Pronotum somewhat broader,  $1.65 \times$  as broad as

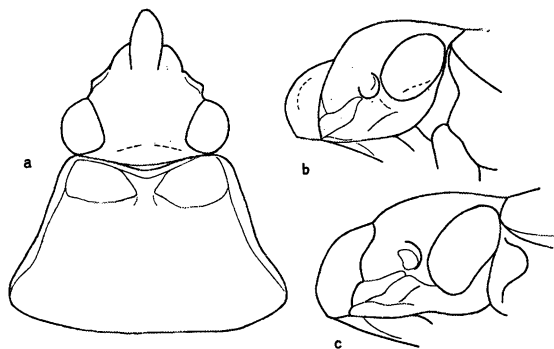


Fig. 14. *Pleuroxonotus nasutus* Rt.: a head and pronotum ( $\varphi$ ). — *Pronototropis punctipennis* (Fb.): b head from side. — *Pleuroxonotus longicornis* (Rt.): c same. — Orig.

head,  $1.8 \times$  as broad as long (total length), lateral margins broadly lamellate and upcurved.

Legs shorter, e.g. hind femur  $1.1 \times$ , hind tibia  $1.6 \times$  as long as basal width of pronotum.

Material studied: Transcaspia, Aschabad, 1  $\varphi$ , type, Ahnger, in Mus. Helsinki, two females from the same locality in my collection.

#### *P. longicornis* (Rt.), comb.n.

*Pronototropis longicornis* REUTER 1900, p. 140.

Head longer and narrower,  $1.3 (\sigma)$  or  $1.11 (\varphi) \times$  as broad as long, in lateral view  $1.5 - 1.53 \times$  as long as high. Eyes larger, vertex narrower, ocular index  $1.13 - 1.14 (\sigma)$  or  $1.78 - 1.83 (\varphi)$ .

Antennae much longer, proportions between joints 11:43:36:13 ( $\sigma$ ), 2nd joint  $1.90 - 1.95 (\sigma)$  or  $1.76 - 1.95 (\varphi) \times$  as long as diatone,  $1.23 - 1.26 (\sigma)$  or  $1.0 - 1.12 (\varphi) \times$  as long as basal width of pronotum.

Pronotum generally narrower,  $1.7 - 1.8 \times$  as broad as long,  $1.74 - 1.76 (\sigma)$  or  $1.6 (\varphi) \times$  as broad as head, lateral margins more narrowly lamellate in  $\varphi$ , in  $\sigma$  only very narrowly lamellate, only slightly upcurved.

Legs longer, e.g. hind femur  $1.5 (\sigma)$  or  $1.25 (\varphi)$ , hind tibia  $2.45 (\sigma)$  or  $2.0 (\varphi) \times$  as long as basal width of pronotum.

Body in  $\sigma$  considerably more gracile than in  $\varphi$ . Male genitalia in Fig. 6 a - d.

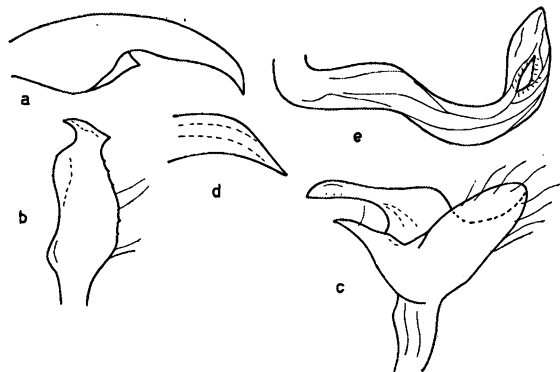


Fig. 15. *Pronototropis punctipennis* (Fb.): a claw; b right stylus; c left stylus; d theca; e vesica. — Orig.



Fig. 16. *Pleuroxonotus longicornis* (Rt.): a vesica; b right stylus; c left stylus; d theca; e claw. — Orig.

Range: Eremian (North Africa, Israel, Syria, Cyprus).  
Material studied: Spanish Morocco, Melilla, 1 ex.,  
Pardo, Libya, Tripolitania, 20 km. east of Tagiura, 1 ex.,  
14. IV. 1965 and 20 km. west of Gasr-el-Garabulli, 1 ex.,

3. V. 1965, Eckerlein. Israel, Rehovot, some, 17. IV.  
1958, Swirski. Cyprus, Kyrenia, Boghazi, 1 ex., 11. V.  
1939, Håkan Lindberg. All material in my collection.  
Host: *Launea resedifolia*.

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