

Hemipterological studies

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The present article contains descriptions of the following new species: *Orthotylus nocturnus* sp. n. (Arabia), *O. nymphias* sp. n. (Turkestan) and *Tuponia luniensis* sp. n. (India) (Miridae), and *Nariscus longirostris* sp. n. (Israel) (Alydidae).

1. On the martini group of the genus *Orthotylus* Fb. (Miridae)

The *martini* group of the subgenus *Melanotrichus* Rt. (= *Halocapsus* Pt.) consists of ochraceous or green species with a dark pattern at least on the head and pronotum. The antennae are pale ochraceous with the 1st joint black. The other species of the subgenus are greenish. While the styli are of the type common in the subgenus, the penis is characteristic, being provided with two appendages of unequal length. The genitalia are similar in all the species of the group, indicating a close relationship between them. The range of the group is Eremian, stretching from North Africa to Turkestan. Two species, *O. martini* Rt. and *O. nigricollis* Wgn., have hitherto been described. Two

further species were detected in the material studied and are described below.

Key to the species

- 1 (2) Colouring totally dark brown *nocturnus* sp.n.
- 2 (1) Pale ochraceous or green species with dark pattern on head and pronotum 3
- 3 (4) Bright green species; cuneus green, immaculate *nymphias* sp.n.
- 4 (3) General colour pale ochraceous; cuneus totally or partly dark 5
- 5 (6) Entire cuneus dark brown *martini* Rt.
- 6 (5) Basal median angle and a stripe along lateral margin of cuneus dark *nigricollis* Wgn. (Saudi Arabia, unknown to me)

O. martini Rt.

Length ♂ 4 mm, ♀ 3.5 mm. Opaque. Pale ochraceous. Head and pronotum dark brown to black, in ♀ middle of head and basal margin of pronotum pale (Fig. 1 h). Eyes reddish grey. Antennae yellowish, 1st joint black. In ♂ base of scutellum sometimes infummed. Cuneus dark brown; membrane dark, veins slightly paler, lateral margin bordering cuneus pale. In ♂ under surface of pronotum embrowned. Legs pale, tibiae with very small setigerous dots.

Robust. ♂ nearly parallel-sided, ♀ ovate. Body 3.22 (♂) or 2.6 (♀) × as long as broad at base of pronotum. Ocular index 2.0—2.16 (♂) or 2.64 (♀). Proportions between antennal joints 6+30+26+12 (♂) or 8+34+29+11 (♀), 2nd joint about as long as basal width of pronotum. Body with yellowish or brownish hairs and adpressed silvery tomentum.

Male genitalia much as in *O. nymphias*, but right stylus and 2nd aedeagal process different (Fig. 2 d—e). Range: North Africa.

Material studied. Algeria: Biskra, 2 ♂♂, 28.—30. IV. 1964, H. Eckerlein. Sudan: Kassala Prov., Suakin, 1 ♀, 5. XII. 1963, Linnavuori.

O. nocturnus sp. n.

Fig. 1 a. Length 3.75 mm. Opaque. Uniformly dark coffee brown. Head medially, indistinct median band on anterior part of pronotum and

scutellum slightly pale. Antennae yellowish, 1st joint black. Membrane dark, veins in apical part pale. Under surface of thorax with faint pale markings. Rostrum pale. Femora dark brown, tibiae and tarsi yellow-brown, tibiae with small dark setigerous dots.

Elongately pear-shaped, 3 × as long as broad at base of pronotum. Hair covering brown (silvery tomentum in the specimen studied apparently worn off). Head 0.7 × as broad as pronotum, in apical view broader than high (22.5:8), ocular index 2.4. Proportions between antennal joints 6:30:22:13, hair covering short and pale, 1st joint moderately thick, others filiform, 2nd a little shorter than basal width of pronotum (30:32). Rostrum extending a little beyond hind coxae. Pronotum 2.3 × as broad as long, lateral margins straight, basal margin curved, disk moderately convex, calli indistinct. Scutellum large. Elytra extending a little beyond apex of abdomen. Hair covering of venter long, dense, directed caudad. Hind femora incrassate, 1.19 × as long as basal width of pronotum, 4.1 × as long as broad. Tibial spines brownish, longer than cross-section of tibia, hair covering longish and dense.

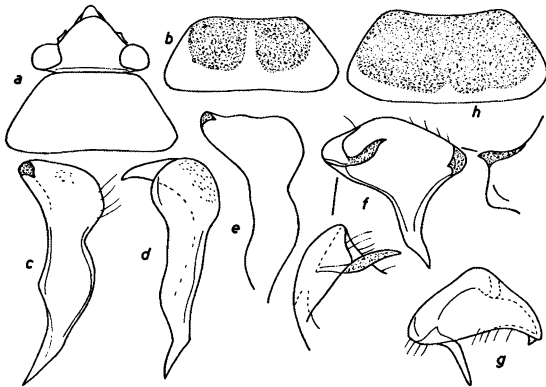


Fig. 1. *Orthotylus nocturnus* sp. n.: a head and pronotum. — *O. nymphias* sp. n.: b pronotum (♀); c—e right stylus; f left stylus; g same from above. — *O. martini* Rt.: h pronotum (♀). — Orig.

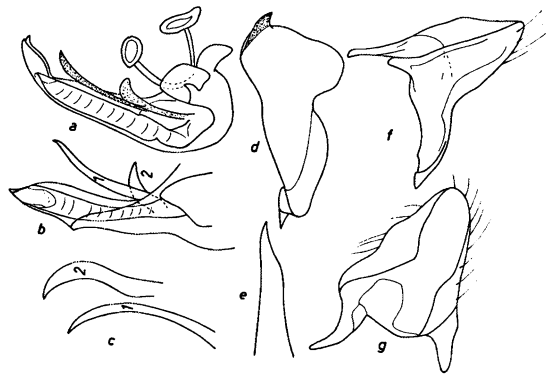


Fig. 2. *Orthotylus nymphias* sp. n.: a—b penis; c appendages of same. — *O. martini* Rt.: d right stylus, broad aspect (same as in Fig. 1 e); e second aedeagal appendage. — *Tuponia luniensis* sp. n.: f left stylus; g same from above. — Orig.

Material studied: Trucial Oman: Sirabu Nu'air, 1 ♀, type, in my collection.

A unique species. Readily distinguished by the colouring.

O. nymphias sp. n.

Length ♂ 4 mm, ♀ 3.5—3.75 mm. Fairly shiny. Green. Head in ♂ infusate, medially pale, in ♀ pale, only apically darkened. Eyes dark brown. 1st antennal joint black, others yellowish. Pronotum blackish brown (♂) or green with two large squarish dark brown spots (♀) (Fig. 1 b). Scutellum dark brown (♂) or green (♀). Elytra uniformly green; membrane dark (♂) or slightly smoky (♀), veins pale. Under surface green or yellowish, pronotum embrowned laterally in ♂. Legs greenish.

Body gracile, parallel-sided, 3.5 × as long as broad at base of pronotum in ♂, ovate, about 3 × as long as broad at base of pronotum in ♀. Hair covering longish, concolorous, in apical part of elytra blackish, silvery tomentum abundant. Head 0.7 × as broad as pronotum, in apical view broader than high (21:16 in ♂, 22:17 in ♀); ocular index 2.0 (♂) or 2.33—2.50 (♀). Antennal structure as in the other species, proportions between joints 7:33:27:? (♂) or 7:33:29:10 (♀), 2nd joint a little longer than basal width of pronotum (33:31 in ♂, 33:31 in ♀). Rostrum extending to hind coxae. Pronotum 2.4 × as broad as long, lateral margins straight, basal margin curved, disk fairly convex, calli indistinct. Scutellum relatively small. Elytra distinctly longer than abdomen, cuneus in ♂ longer than in the other species. Hair covering of venter dense, yellowish, directed caudad, also silvery tomentum present. Legs appearing rather gracile, anterior tibiae with minute setigerous dark dots. Tibial spines pale, delicate, a little longer than cross-section of tibia, hair covering pale, relatively dense.

Male genitalia in Figs. 1 c—g and 2 a—c.

Material studied: USSR: Turcmenia, 50 km Tegshena na svet, 1 ♂, type and 2 ♀ paratypes, 22. IX. 1962, Gullys; Bajram-jali, 1 ♀ paratype,

20.—21. VII. 1930, Bogush, in my collection.

Readily distinguished by the green colouring, the immaculate elytra and the gracile body. The male of *O. nigricollis* is, according to the original description (WAGNER 1962, 217—218), elongately ovate, 2.8 × as long as broad at base of pronotum, and opaque. The cuneus has a dark pattern: the inner basal angle is blackish brown and a dark stripe is present in the lateral margin. The right stylus seems to be dissimilar and the second aedeagal appendage is remarkably large, longer than the first appendage.

2. *Tuponia luniensis* sp. n. (Miridae)

Length 2.75 mm. Whitish. Head pale yellowish. Eyes greyish brown. Antennae yellow-brown. Base of scutellum infusate. Elytra with a dilute fuscous band across apex of corium and clavus, lateral end of the band red; cuneus pale; membrane smoky, veins pale. Under surface yellowish. Legs pale ochraceous, hind femora slightly infumed apically; tibial spines pale brown.

Body parallel-sided. Head large, 0.76 × as broad as pronotum; eyes large, ocular index 0.92. Antennae moderately incrassate, proportions between joints 13:60:37:16, 2nd joint a little longer than diatone (60:54), 0.85 × as long as basal width of pronotum. Rostrum extending to hind coxae. Pronotum 1.8 × as broad as long, lateral margins straight, hind margin slightly curved, callal area indistinct. Hair covering of elytra pale. Proportions between hind tarsal joints 5:9:11.

Male genitalia in Figs. 2 f—g and 3 a—g. Vesica relatively short and robust, ending in a short claw-like apical process.

Material studied: India: Luni River, 40 km km S of Jodhpur, 1 ♂, type, 18. VIII. 1972, D. Gerling, in my collection. On *Tamarix*.

Of the *tamaricis* group. Belonging to the group of species with pale tibial spines. Resembling *T. tincta* Jak. (Turkestan) and *T. persica* Wgn. (Iran) in colouring, but readily distinguishable by the shape of the vesica. The vesica of *T. tincta* is illustrated in LINNAVUORI

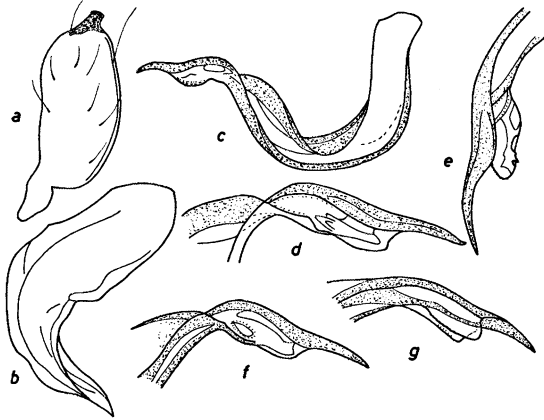


Fig. 3. *Tuponia luniensis* sp. n.: a right stylus, broad aspect; b theca; c vesica; d—g apex of same in different aspects. — Orig.

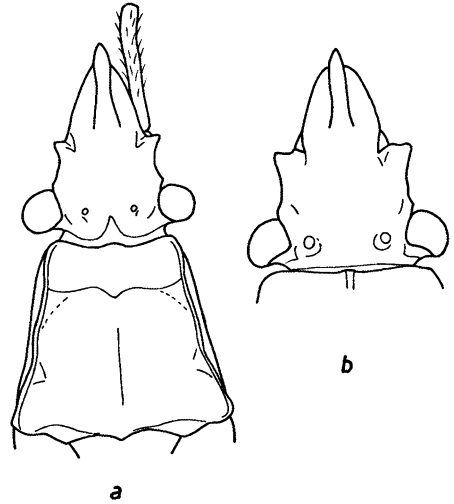


Fig. 4. *Nariscus longirostris* sp. n.: a head and pronotum. — *N. spinosus* (Bm.): b head (♀). — Orig.

1961, 22 and that of *T. persica* in WAGNER 1957, 98.

3. *Nariscus longirostris* sp. n. (Alydidae)

Fig. 4 a Length 12 mm. Opaque. Upper surface uniformly dark reddish brown. Eyes dark brown. Antennae yellow-brown with short black bristles. 4th join infumed. The narrowly lamellate lateral margins of pronotum and a small median knob in basal margin of same whitish, the former bordered with dark fuscous. Extreme tip of scutellum slightly pale. Apical margin of corium black with a few pale patches; membrane smoky, veins fuscous. Dorsum of abdomen reddish brown, laterally and apically infumed. Paratergites yellowish, apically fuscous. Under surface of head and thorax laterally ochraceous with dense silvery tomentum; lateral margins of thorax with a narrow black stripe in anterior half, median parts reddish brown, caudal end \pm embrowned. Venter ochraceous with red dotting, irregular longitudinal dark band on either side. Legs ochraceous; fore and middle femora with dense minute dark dotting, tibiae and tarsi slightly embrowned apically; hind fem-

ora ochraceous in basal third, apical part dark brown with a narrow broken pale subbasal ring; hind tibiae dark brown with subbasal pale ring; tibiae ochraceous, infuscate apically.

Body small and narrow, $5.4 \times$ as long as broad at base of pronotum. Head acuminate, a little narrower (52:56) and longer (1:48) than pronotum, hair covering dense, short, yellowish; ocular index 2.5. Proportions between antennal joints 40:40:40:60 (diatone 52 units). Rostrum unusually long, extending to apex of metasternum. Pronotum $1.2 \times$ as broad as long; lateral margins sharp, distinctly undulate; callal area distinctly raised, totally concealing the very narrow collar, puncturing indistinct; disk uneven, moderately raised (as in *cinctiventris*) (Gm.), very densely punctate, median keel short and faint; humeral angles rounded, basal margin undulate with a small pale median knob; hair covering of pronotum short, yellowish. Scutellum finely wrinkled, hair covering dense. Elytra densely punctate, hair covering conspicuous. yellowish; membrane extending to tip of abdomen. Hair covering of under surface of head and thorax very dense, longish, silvery, that of venter short and silvery. Legs gracile with short

black bristles, hind tibiae in apical two-thirds with long erect black hairs. Spinulation of hind legs as in *N. cinctiventris*. Hind femur and tibia 2.8 x long as basal width of pronotum.

Material studied: Israel: Ein-el-Turuba, 27 km S of Jericho, 1 ♀, type, 14. X. 1971, D. Gerling, in my collection. On *Prosopis farcata*.

Easily recognized by the reddish brown colouring, the small gracile body and the unusually long rostrum.

Key to the species

- 1 (2) Body very small and gracile, length 12 mm. Colouring of upper surface dark reddish brown. Rostrum extending to hind coxae *longirostris* sp. n.
- 2 (1) Body longer (length 12 mm) and robuster. Upper surface never uniformly reddish brown. Rostrum extending near to apex of mesosternum 3
- 3 (4) Pronotum opaque, moderately convex finely punctate, median keel rather sharp and \pm percurrent, humeral angles \pm prominent. Head rather acute (as in *longirostris*). Colouring usually dark *cinctiventris* (Gm.) (Africa S of the Sahara)
- 4 (3) Pronotum shiny, disk convex, puncturing more coarse, median carina fainter, humeral angles roundish. Head a little blunter (Fig. 4 b) (shape variable, however) 5
- 5 (6) Robuster. Usually uniformly pale ochraceous, sometimes with sparse \pm faint brownish spots on upper surface. Dark annulation of hind femora often faint or absent *spinus* (Bm.) (Egypt, Arabia, northern parts of the Ethiopian Regian)
- 6 (5) More gracile. Upper surface with well-developed dark spotting giving the insect a dark appearance. Venter with \pm well-developed dark band on either side. Dark annulation of hind legs distinct *conspurcatus* Mc. (Ethiopia, Somalia, SE Sudan, Yemen) (possibly only a race of *spinus*).

References

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