

Revision of the genus *Paralopus* Wagner (Heteroptera: Miridae, Phylinae)

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The genus *Paralopus* Wagner, 1957, is revised. New species: *P. edithae* sp.n. (Palestine).

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Introduction

The monotypic Phylinae genus *Paralopus* was described by Wagner (1957: 89) from Iran. Later on, the type species, *P. striatus* Wagner, was recorded from Saudi Arabia (Linnavuori 1986: 175). During my field trip to Palestine in 1986 another species, *P. edithae* sp.n., was found in the Negev desert. A description is published below.

Wagner (1957) regarded *Paralopus* as a relative of the Holarctic genus *Lopus* Hahn, 1831 (type species: *Cimex decolor* Fallén, 1807), basing the opinion on the voluminous pulvilli of the claws. But this character has independently evolved in several genera, and cannot alone be used as an evidence of a relationship. *Lopus*, in fact, differs from *Paralopus* in several basic characters (body much larger; color uniformly grayish; hair covering short; eyes removed from anterior margin of pronotum; tylus in lateral view vertical; antennae thicker; prosternal xyphus concave; vesica ending in two edentate processes, gonopore well-delimited) and certainly represents a separate evolutionary lineage. The closest relative of *Paralopus* is apparently *Stirophylus* Wagner, 1965 (type species: *S. aristidae* Wagner; revision in Linnavuori 1971: 131-133). Both of them display the following characters: Pale ground coloring; gracile, similarly shaped body; long pale hair covering; long and gracile extremities; delicate pale tibial spines; vesica gracile, broadly arcuate, with spiny apical portion and poorly delimited gonopore. *Stirophylus* has even a tendency to a striated appearance, which is best visible in *S. lineatus* Linnavuori, 1971. Both genera also inhabit sandy areas of the Eremian subregion. *Paralopus* is readily dis-

tinguished from *Stirophylus* in the coloring, shorter head and large pulvilli.

Depository. – All specimens are deposited in Coll. Linnavuori, Raisio, Finland.

Genus *Paralopus* Wagner

Paralopus Wagner 1957: 89. Type species: *P. striatus* Wagner.

Diagnosis. – Gracile, striated species (Fig. 1). Pulvilli (Fig. 2c) very large.

Description. – Subopaque. Ground color pale fulvous. Striated; median stripe from head to tip of scutellum, sublateral bands on pronotum, and longitudinal bands on clavus and corium, whitish; claval suture and stripe along claval vein dark brown. Membranes of elytra with dense fuscous mottling. Under surface and extremities uniformly pale; tibiae in *P. edithae* with small dark setigerous dots; tibial spines delicate, pale.

Body small, gracile, parallel-sided. Upper surface with semierect long pale hairs. Head small, about 0.7 × as broad as basal width of pronotum, in apical view about 1.2 × as broad as high, upper margin curved, part below eyes bluntly triangular; in lateral view higher than long, dorsal margin of vertex and frons evenly curved, tylus prominent, antennal pits close to lower corners of eyes; in dorsal view vertex moderately convex, posterior margin ecarinate. Eyes small, touching anterolateral corners of pronotum. Antennae gracile, with short pale hairs, 2nd joint longer than diatone, shorter than basal width of pronotum. Rostrum extending to near hind coxae. Pronotum about 2.35 × as

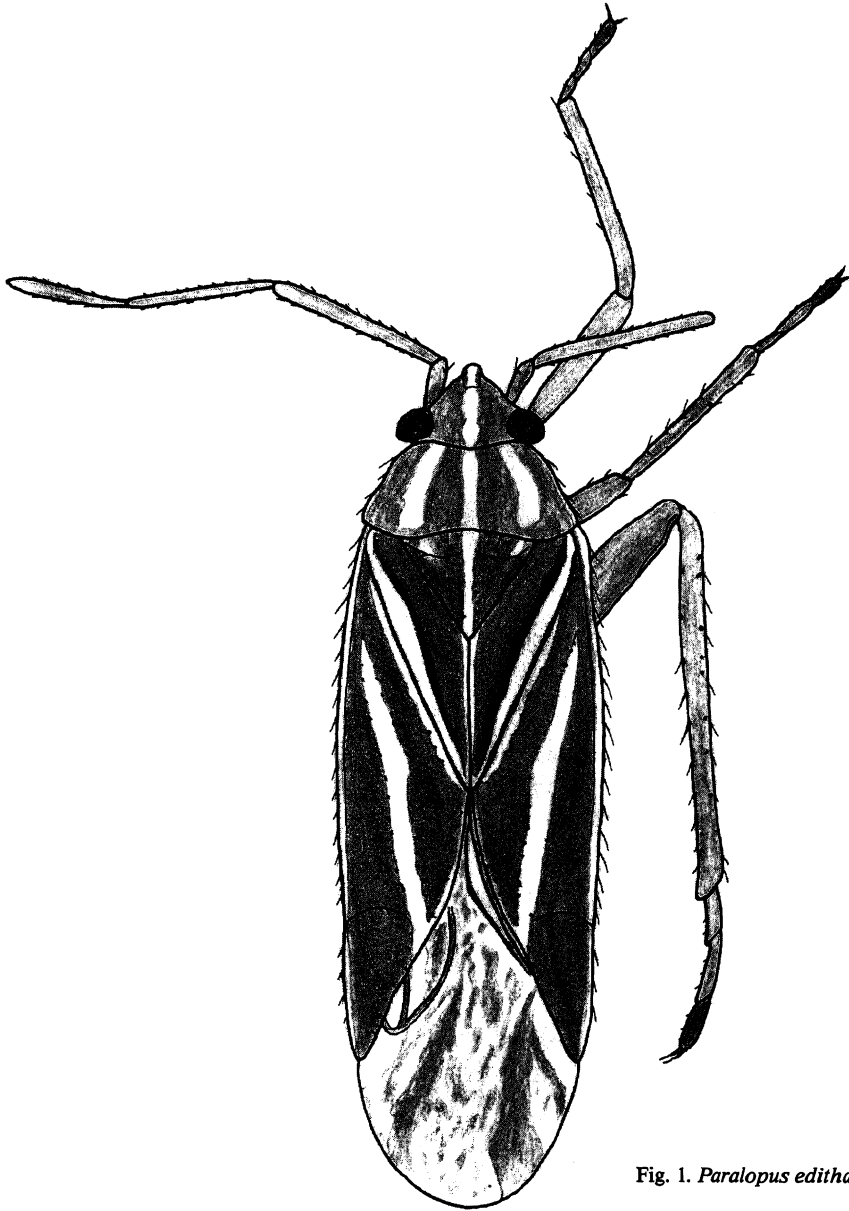


Fig. 1. *Paralopus edithae* sp.n. Male.

broad as long in middle; anterior margin shallowly insinuated in middle; lateral margins insinuated, distinctly keeled; disk moderately convex, calli faintly indicated. Elytra much longer than abdomen, costal margins subparallel. Prosternal xyphus in middle flattish. Legs gracile. Hind femora incrassate. Tibiae with delicate pale bristles and pale hairs; hind tibia about $1.6 \times$ as long as basal width of pronotum. 3rd hind tarsomere shorter than 2nd. Claws (Fig. 2c)

with large pulvilli, extending a little beyond tip of claw; tips of claws free (pulvilli incorrectly recorded as completely fused with claws in the original description).

Male genitalia: Pygofer broadly conical. Styles of usual shape. Theca sharp-tipped. Vesica slender, broadly S-shaped, apex slender and spiny; secondary gonopore subapical, poorly delimited.

Biology. - *Paralopus striatus* was found on the

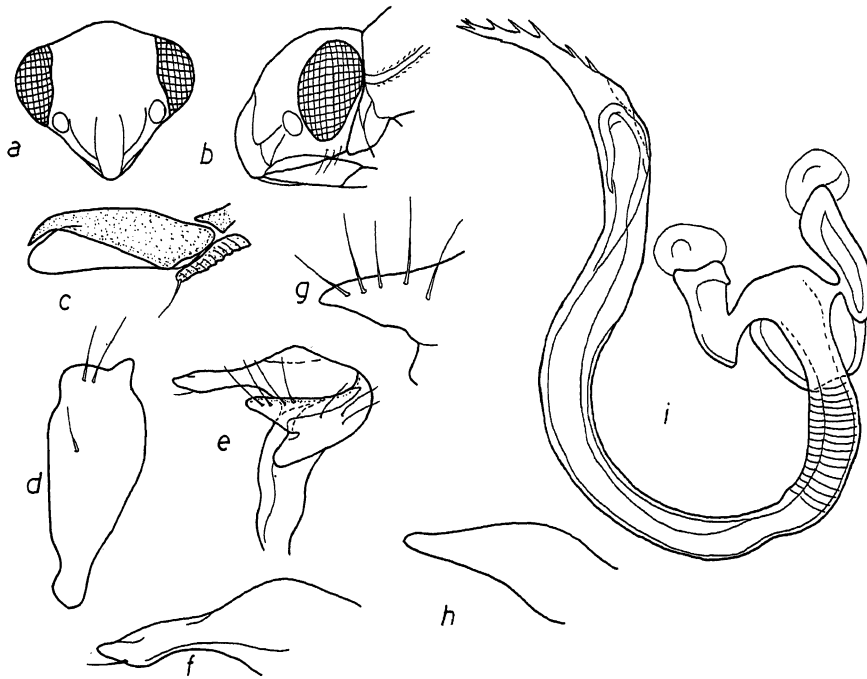


Fig. 2. *Paralopus striatus* Wagner: (a-b) female head in apical and lateral view; (c) claw; (d) right style; (e) left style in lateral view; (f-g) hypophysis and sensory lobe of left style in broad aspect; (h) theca; (i) vesica.

ground under low herbs in sandy habitats in Saudi Arabia (Linnavuori 1986: 175). The holotype of *P. edithae* was collected at a lamp in a semidesert, the paratype was found under *Matricaria* sp. and other Compositae herbs in a sandy habitat in a wadi.

Distribution. – Eremian.

Key to the species

- 1. Dark. Upper surface and tibiae with small dark dots. Mesosternum embrowned. Apex of vesica with tiny spines *edithae*
- Pale. Upper surface and tibiae immaculate. Mesosternum pale. Apex of vesica with long spines *striatus*

***Paralopus edithae* sp.n.**

(Figs 1, 2 b-f)

Etymology. – The species is dedicated to Edith Södergran (1892-1923), the outstanding poetess in Finland.

Type material. – Palestine: S. Distr., Hazeva, ♂ holotype, 15.IV.1986; 17 km S Be'er-Sheva, ♀ paratype, 27.IV.1986, Linnavuori.

Diagnosis. – Larger and darker. Upper surface and tibiae with small dark dots. Mesosternum embrowned.

Description. – Length ♂ 3.75, ♀ 2.75 mm. Head fulvous, with whitish median stripe starting from tip of clypeus and extending across pronotum to apex of scutellum. Eyes pinkish gray. Antennae pale ochraceous. Pronotum fulvous, extreme lateral margins and median stripe white, poorly delimited faint sublateral bands also whitish. Scutellum, excluding white median stripe, olivaceous with faint dark dots. Elytra olivaceous with minute dark dots; commissural margin of clavus and costal margins of corium and cuneus narrowly pale; a white band along claval suture on clavus and adjacent part of mesocorium, this band is delimited by the dark claval vein and traversed by the blackish brown claval suture; mesocorium with contrasting longitudinal white band; membrane with dense fuscous irroration, near apex of cuneus immaculate, dark stripe along inner margin, veins yellowish. Under surface yellow-brown, mesosternum embrowned. Legs pale yellowish brown, hind femora slightly darker; tibiae with small setigerous dark dots; 3rd tarsomeres embrowned.

Body long and narrow, 3.75 (♂) or 3.2 (♀) × as long as broad at base of pronotum. Hair covering long, semierect, pale. Head 0.68 (♂) or 0.75 (♀) ×

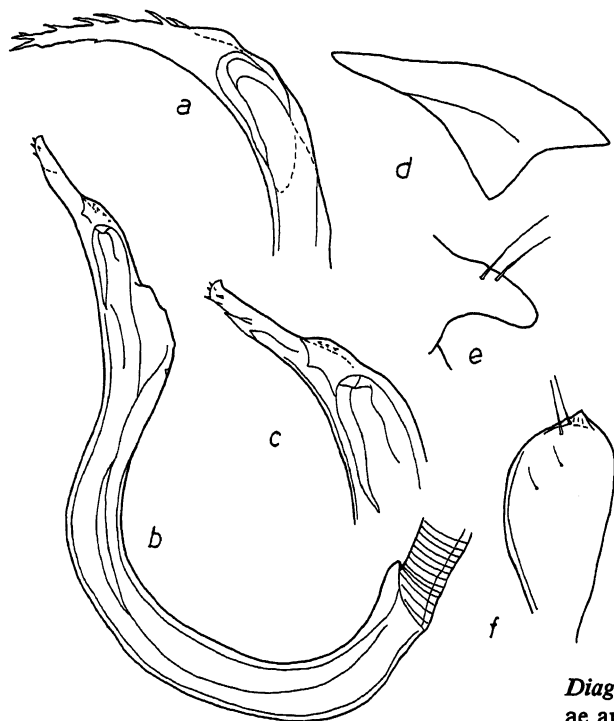


Fig. 3. *Paralopus striatus* Wagner: (a) apex of vesica. *P. edithae* sp.n.: (b) vesica; (c) apex of vesica; (d) theca; (e) sensory lobe of left style; (f) right style.

as broad as basal width of pronotum, in apical view 1.2 (σ ♀) \times as broad as high; ocular index 1.81 (σ), 2.33 (♀). Proportions between antennal joints 13:50:37:22 (σ), 9:35:26:18 (♀), 2nd joint 1.25 (σ) or 0.9 (♀) \times as long as diatone, 0.85 (σ) or 0.67 (♀) \times as long as basal width of pronotum. Rostrum extending to near hind coxae. Pronotum 2.36 \times as broad as long in middle. Hind tibia (σ ♀) 1.55 \times as long as basal width of pronotum. Proportions between hind tarsomeres 8:14:12.

Male genitalia (Figs 3 b-f): Pygofer broadly conical. Apex of right style broadly rounded. Left style as in *P. striatus* but sensory lobe blunter. Apex of vesica with tiny spines.

Distribution. – Known from Palestine.

Paralopus striatus Wagner

(Figs 2a-i, 3a)

Material studied. – Iran: Baluchistan, Iranshar, 800 m, ♀ paratype, 1-10.IV.1954, Richter & Schäuuffele, in Coll. Linnavuori. Saudi Arabia: several exx from Hamatiyat-As Saira, 28.IV.1978; Najran-As Sharawrah, 8-9.II.1978; 50 km NW An Nu'ayriyah, 23.III.1978; 140 km E Al Qaysumah, 27.IV.1978, Linnavuori.

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Diagnosis. – Smaller and paler. Upper surface, tibiae and mesosternum immaculate. Apex of vesica with long spines.

Description. – Length (σ ♀) 2.50-2.75 mm. Like the preceding species but paler. Upper surface and tibiae immaculate. Under surface of thorax pale.

Body much smaller and robuster, about 3.3 \times as long as broad at base of pronotum. Measurements: Head (σ ♀) 0.66-0.77 \times as broad as basal width of pronotum, in apical view about 1.2 \times as broad as high; ocular index 1.9-2.2 (σ), 2.40-2.77 (♀). Proportions between antennal joints 9:40:29:21 (σ), 9:34:25:19 (♀), 2nd joint (σ ♀) about 1.10-1.23 \times as long as diatone, 0.76-0.82 \times as long as basal width of pronotum.

Male genitalia in Figs 2d-i, 3a. Pygofer broadly conical. Apex of right style truncate. Apex of vesica with long spines.

Distribution. – Known from Iran and Saudi Arabia.

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