

***Leptopholcus dioscoridis* Deeleman-Reinhold & van Harten, 2001**

Deeleman-Reinhold, C. L., van Harten, A. 2001. Description of some interesting, new or little known Pholcidae (Araneae) from Yemen. Pp. 193-207 in: Ishwar Prakash (ed.) Ecology of Desert Environments. Scientific Publishers, India, Jodhpur.

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Leptopholcus Simon, 1893

Leptopholcus Simon, 1893a: 474; type species *L. signifer* Simon, 1893b: 319, male and female, Congo.

Diagnosis. Genus of pale spiders with low, flattened carapace and vermiform abdomen, belonging to the *Pholcus* group (carapace lacking a pit in the middle, abdomen longer than wide, male palp with trochanteral apophysis, "elbowed" paracymbium and conductor composed of two branches straddling the embolus).

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Distinct from other genera by having six eyes in two widely separated triads on the margin of the carapace. Anterior median eyes are represented as a pair of specks between the triads.

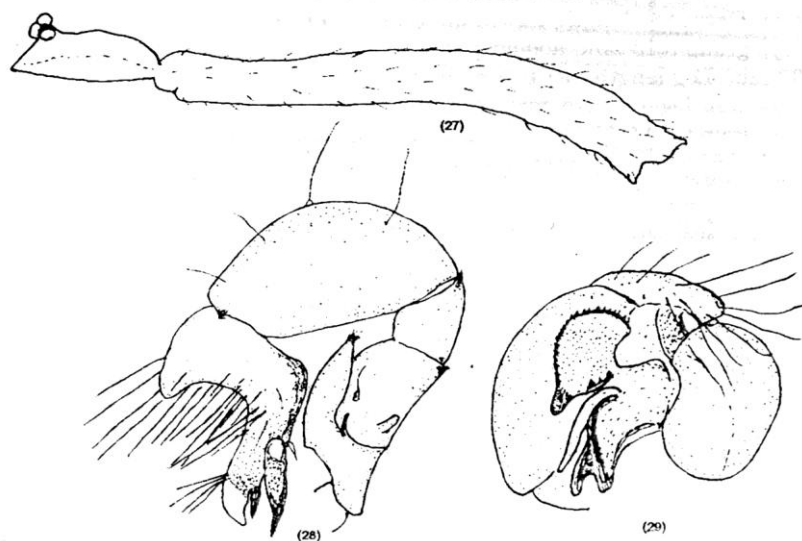
Leptopholcus dioscoridis n.sp.
(fig.27-29)

Type locality. Socotra island, Homhil.

Type material. Male holotype, Socotra, Homhil (12°34'N, 54°18'E, 500 m), 08.ii.1999, H. Pohl, with contorted legs and palps; 1 immature, same data; 1 submale, 3 immatures, Socotra, Wadi Daneghan (12°36'N, 54°03'E), 4.x.1998.

Diagnosis. *L. dioscoridis* can be distinguished from other *Leptopholcus* by the large round lateral branch of the conductor ("uncus") having a conspicuously serrated black margin. The palpal trochanter seems aberrant but this may be due to an artefact. The tip of the abdomen protrudes dorsally, a character shared with *L. debilis* (Thorell, 1899) from Cameroun. In *L. debilis* the abdomen length is 5 x the width, whereas it is 6½ x in *L. dioscoridis*.

Description. MALE, holotype. Total length 6.90 mm. Carapace length 1.25 mm, width 1.25 mm, width eye area 0.60 mm, abdomen length 4.60 mm, width 0.70 mm uniform over the full length. Leg length: leg I 45.50 mm (11.50-10.50-21.50-2.00), leg II 25.90 mm (7.80-7.00-9.50-1.60), leg III 15.30 mm (5.50-4.50-4.60-0.70), leg IV 25.70 mm (8.00-6.70-10.00-1.00). Palp, femur 0.30 mm, patella 0.25 mm, tibia 0.50 mm,



Figures 27-29. *Leptopholcus dioscoridis* n.sp., male. 27- Side view; 28- palp, retrolateral view; 29- prolateral view.

paracymbium 0.50 mm long, bulb 0.42 mm long. Pale, cream-coloured in alcohol, with a paired grey mark in the thoracic groove area; legs with dark femoral tip and patellae, and dark area around the tibia-metatarsal joint. Eyes in two slightly raised triads, anterior median eyes tiny. Chelicerae unmodified and lacking frontal or lateral apophyses. Abdomen vermiform, rear end truncate, with a constriction (fig. 27); the tip distinctly overshoots the spinnerets, which is most pronounced in the immature specimens. Male palp fig. 28,29. Trochanter enlarged, with a voluminous apophysis bearing a basal tooth and a knob-like tip; as the palp is contorted, the orientation of the apophysis as given in the figure is not certain and it may actually point in a more normal, perpendicular direction. Femur with retrolateral basal projection (shared with the Asian species) and a smaller one more distalwards. Cymbium, when viewed from dorsal side, short and round (as opposed to East Asian species), paracymbium stereotypic for the genus, lateral branch of conductor ("uncus") flat and surrounded by a conspicuous circle of black teeth; median branch ("appendix") relatively large and forming a longitudinal groove to accommodate the limp embolus.

FEMALE unknown.

Distribution. Known at present only from Socotra.

Habitat. At Homhil near a spring surrounded with *Ficus* trees, 500 m; at Wadi Daneghan near a semi-permanent water stream.

Notes on the climate of Socotra. The average annual rainfall on the island has been estimated to be 170-190 mm. However, in the higher parts of the island wet air from the sea condenses and humidity is increased with dew and fog so that at altitudes over 4-700 m total precipitation is estimated to be doubled (Mies, 1999). The unique flora of the island is supposed to be an adaptation to the extreme dry climate.

The occurrence of a *Leptopholcus* species on this island is most unexpected, as hitherto species of this genus from Africa, tropical America and tropical Asia were associated with humid tropical forests. The environs of a spring and a water stream and condensed humid air apparently offer sufficient moisture for the species to sustain itself. Again, the species might be a relict from the time Socotra had a much wetter climate.

Relationship. *L. dioscoridis* is closely related to all those African *Leptopholcus* species with described males: *L. signifer* Simon, 1893b, *L. gracilis* Berland, 1920, and *L. sakalavensis* Millot, 1946. Relationship with the African species of which only females are known cannot be assessed, viz. *L. debilis* (Thorell, 1899), *L. tipula* (Simon, 1907) and *L. guineensis* Millot, 1941. There also is close relationship with *L. borneensis* Deeleman-Reinhold, 1986, the male of which is undescribed, and a number of other, undescribed species from tropical Asia. Four species of *Leptopholcus*, closely related to each other, have been described from the Greater Antilles, all allegedly are inhabitants of dark and humid habitats. These species are distantly related to the African and Asian species (Huber, 2000).

Etymology. Genitive of Dioscorides, the Ancient name of the island Socotra.

Huber, B. A. 2011. Revision and cladistic analysis of *Pholcus* and closely related taxa (Araneae, Pholcidae). Bonner zool. Monographien 58: 1-510.

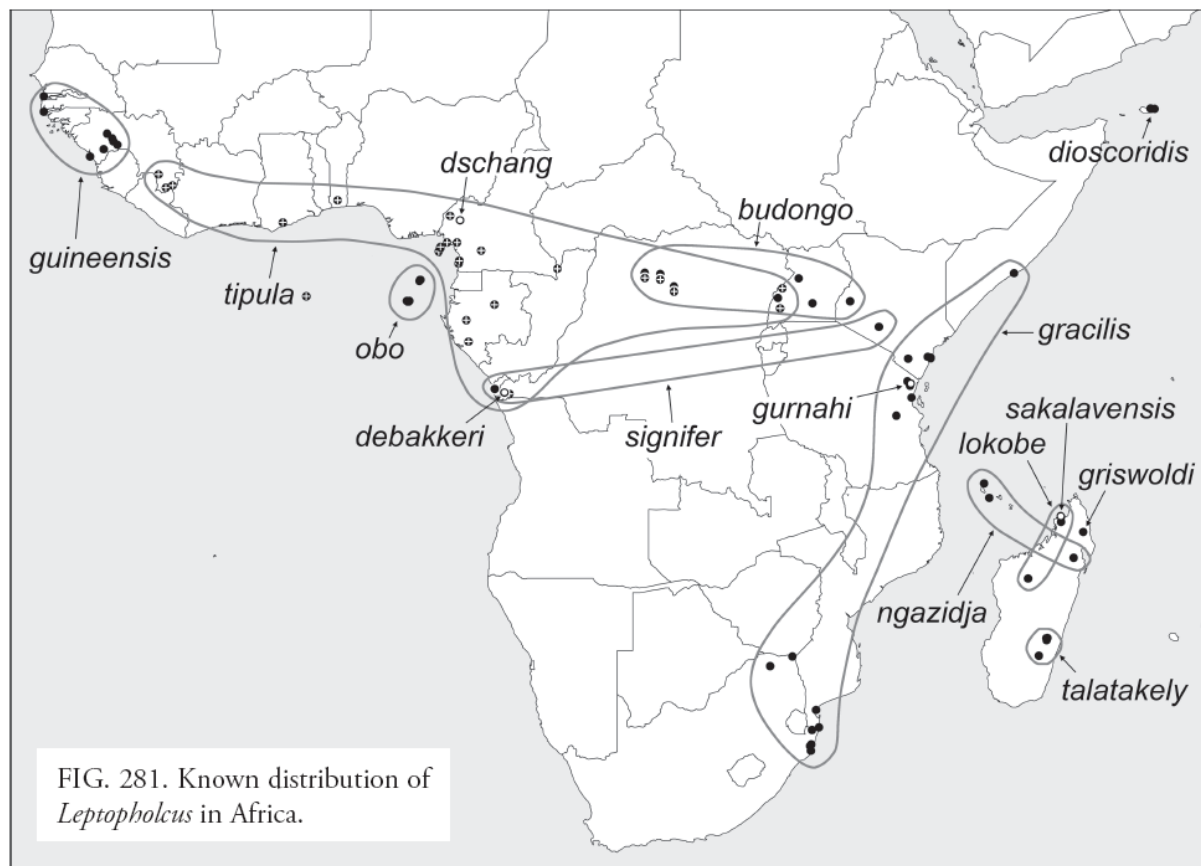
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219. *L.*

dioscoridis, male holotype, dorsal view.

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Figs. 219, 331, 332

Leptopholcus dioscoridis Deeleman-Reinhold & van Harten 2001: 202-203, figs. 27-29.

Types. Male holotype and 1 juvenile paratype from Yemen, Socotra Island, Homhil [12°34'N, 54°18'E], 500 m a.s.l., 8.ii.1999 (H. Pohl), in RMNH, examined; four juvenile paratypes from Wadi Daneghan (12°36'N, 54°03'E), 4.x.1998, in RMNH, not examined.

Diagnosis. Distinguished from congeners by morphology of male palp (Figs. 331, 332; distinctively

curved trochanter apophysis; shapes of procurus, uncus, and appendix).

Male (holotype). Total body length 5.7, carapace width 1.1. Leg 1: 41.7 (10.3 + 0.5 + 10.0 + 18.7 + 2.2), tibia 2: 7.2, tibia 3: 4.2, tibia 4: 6.2; tibia 1 L/d: 94. Habitus as in Fig. 219. Prosoma and legs pale ochre-yellow, light brown pair of marks medially on carapace, patella area and tibia-metatarsus joints also darkened, abdomen pale whitish. Distance PME-PME 370 µm, diameter PME 95 µm, distance PME-ALE 25 µm, distance AME-AME 25 µm, diameter AME 20 µm. Ocular area barely elevated, triads on very low humps. No thoracic furrow; clypeus un-

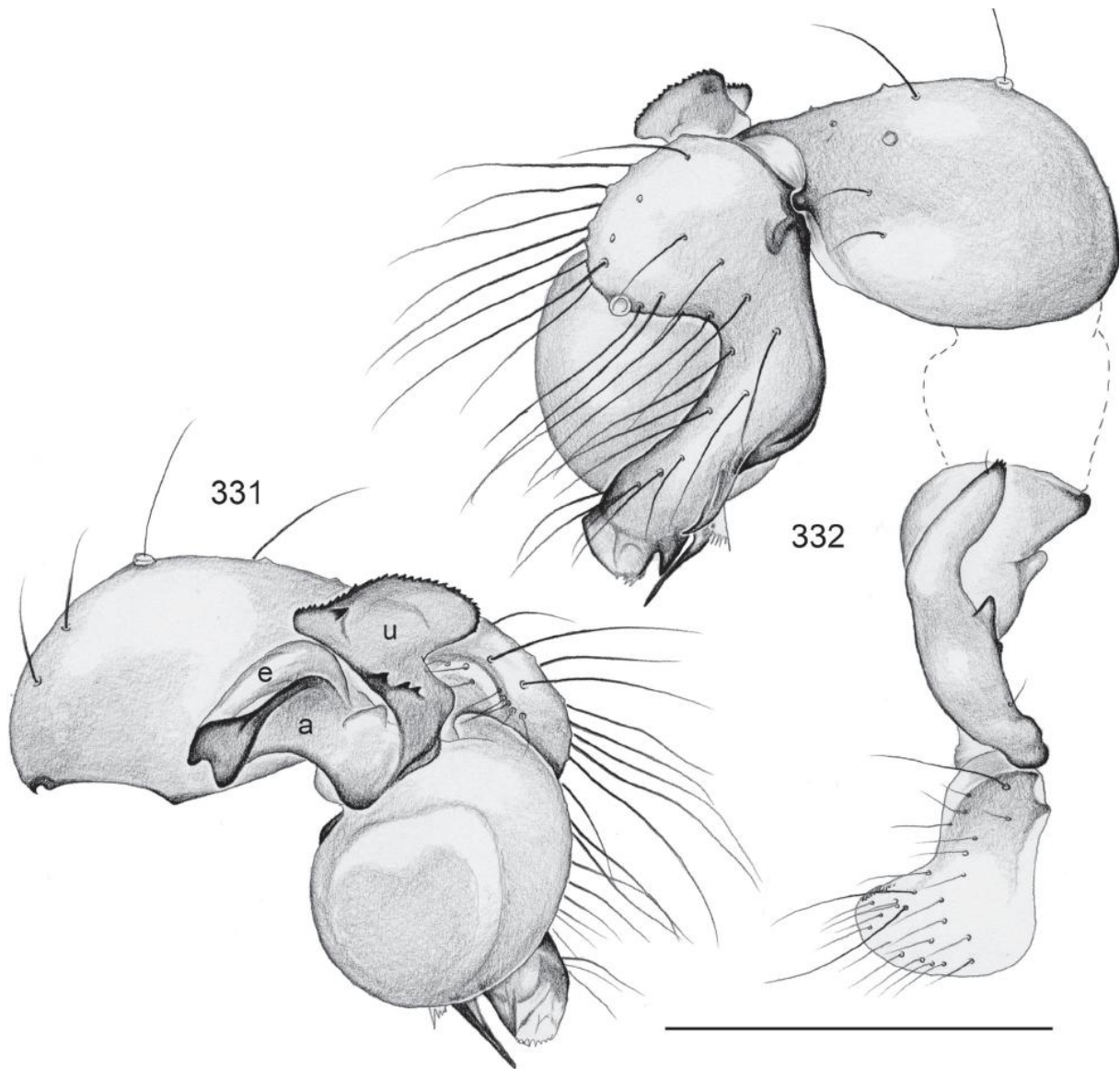


FIG. 331, 332. *Leptopholcus dioscoridis*, male holotype, left male palp (damaged), prolateral and retrolateral views. Scale line: 0.5.

modified. Chelicerae as in *L. gracilis* (cf. Fig. 303), with small weakly sclerotized apophyses laterally. Sternum distorted, unmodified. Palps as in Figs. 331 and 332, coxa unmodified, trochanter with small retrolateral apophysis and long distinctively curved ventral apophysis with serrated tip, femur with dorsal apophysis proximally and smaller retrolateral apophysis (hidden by trochanter apophysis in Fig. 332), procursus simple except distally, with distinctive ventral processes, uncus with distinctive teeth and serrated edge, weakly sclerotized embolus, distinctive appendix. Legs without spines and curved hairs, few vertical hairs (many hairs missing); retrolateral trichobothrium on tibia 1 at 4%.

Female. Unknown.

Distribution. Known from Socotra Island only (Fig. 281).

Material examined. YEMEN: Socotra Island: Homhil: ♂ holotype and 1 juv. paratype above; same data, 3 juveniles in RMNH.