Leptopholcus toma Huber, 2006

Huber, **B. A.**, **Wunderlich**, **J. 2006**. Fossil and extant species of the genus *Leptopholcus* in the Dominican Republic, with the first case of egg-parasitism in pholcid spiders (Araneae: Pholcidae). Journal of Natural History 40: 2341-2360.

p. 2344



Figure 2. (a–f) Males in dorsal and lateral views: $(i-k) \ untreated \ female \ genitalia \ in \ ventral \ views:$

L. toma (e, f);

L. toma (k).

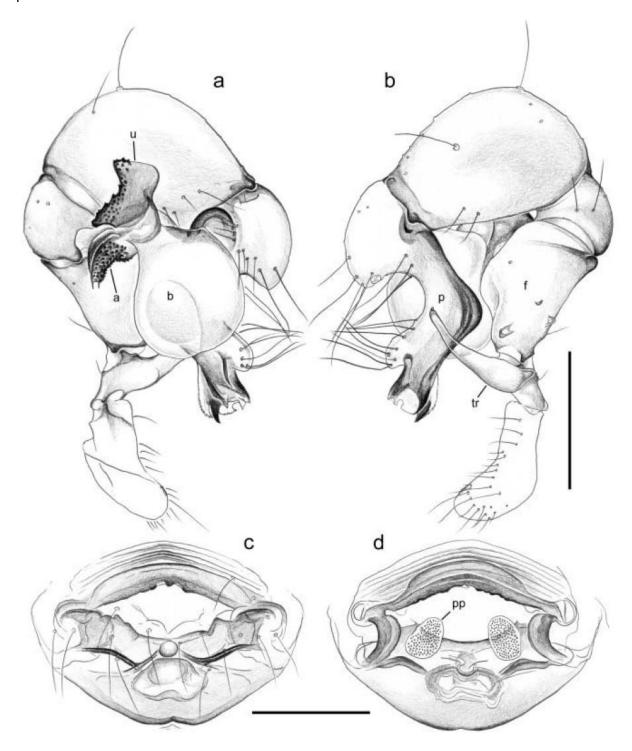


Figure 7. *Leptopholcus toma*. (a, b) Male palp in prolateral and retrolateral views; (c, d) cleared epigynum in ventral and dorsal views. a, appendix; b, bulb; f, femur; p, procursus; pp, pore plate; tr, trochanter; u, uncus. Scale bars: 0.3 mm (a, b), 0.2 mm (c, d).

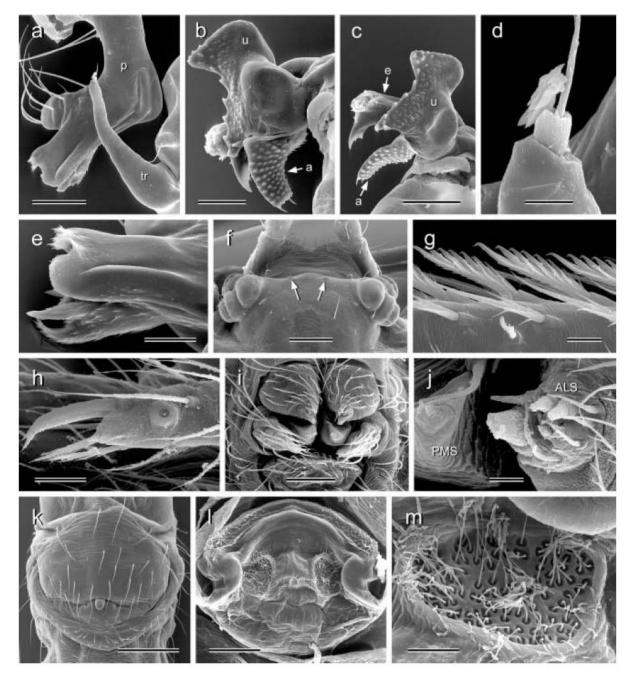


Figure 8. Leptopholcus toma, SEM images. (a) Left procursus and palpal trochanter, retrolateral view; (b, c) male bulbal projections; (d) tip of male palpal trochanter apophysis with modified hair; (e) tip of procursus, retrolateral view; (f) female ocular area (arrows point to AME lenses); (g) female tarsus 4 with row of serrated hairs; (h) tip of female pedipalp; (i) female spinnerets and anal cone; (j) female ALS and PMS; (k) epigynum, ventral view; (l) female internal genitalia, dorsal view of cleared genitalia; (m) pore plate, dorsal view. a, appendix; e, embolus; p, procursus; tr, trochanter; u, uncus. Scale bars: $100 \, \mu m$ (a, c, f, l); $70 \, \mu m$ (b, i); $10 \, \mu m$ (d, g, j); $50 \, \mu m$ (e); $30 \, \mu m$ (h); $200 \, \mu m$ (k); $20 \, \mu m$ (m).

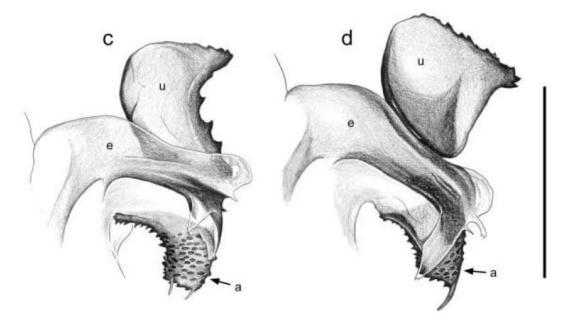


Figure 9. Distinctive bulbal projections (left bulbs in retrolateral views). (c) *L. toma* from type locality; (d) *L. toma* from near Cabral. a, appendix; e, embolus; u, uncus. Scale bar: 0.2 mm.

Leptopholcus toma Huber, new species (Figures 2e, f, k, 7, 8, 9c, d)

Туре

Male holotype from forest near La Toma (18°27.5′N, 70°07.2′W), San Cristóbal Prov., Dominican Republic; 70 m a.s.l., underside of leaves, 7 November 2005 (B. A. Huber), in ZFMK.

Etymology

The species name is a noun in apposition, derived from the type locality.

Diagnosis

Distinguished from known Caribbean congeners by the shapes of the apophyses on the male genital bulb (Figures 7a, 8b, c, 9c), by the shape of the procursus (Figures 7b, 8a), and

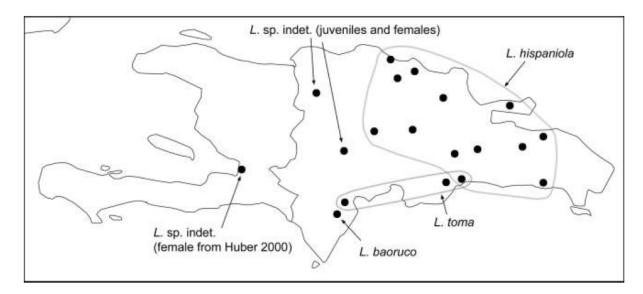


Figure 10. Known distribution of *Leptopholcus* in Hispaniola. Unidentified females and juveniles were collected at two localities in the Dominican Republic: near El Pino (19°24.7′N, 71°29.9′W), E of San Juan de la Maguana (18°47.6′N, 71°12.2′W). All other localities are detailed in the text.

by the internal sclerotized structures in the female genitalia (Figures 2k, 7c, d). From *L. hispaniola* also by the much longer male palpal trochanter apophysis (Figure 7b) and longer abdominal projection beyond the spinnerets (Figure 2f); from *L. baoruco* also by the light ocular area (Figure 2e).

Male (holotype)

Total length 3.9, carapace width 0.83. Leg 1: 28.8 (7.2+0.35+7.1+12.6+1.5), tibia 2: 4.4, tibia 3: 2.7, tibia 4: 4.0. Tibia 1 L/d: 107. Habitus as in Figure 2e, f; prosoma very pale ochre-grey, with slightly darker band frontally between eye triads, sternum whitish, legs pale ochre, patellae and tibia-metatarsus joints dark (almost black), abdomen ochre-grey with black spots dorsally (Figure 2e). Ocular area slightly elevated, with lateral triads on distinct but low humps; distance PME-PME 275 µm; diameter PME 70 µm; distance PME-ALE 20 μm; distance AME-AME 55 μm, diameter AME 20 μm. Thoracic furrow absent. Sternum about as wide as long (0.5). Chelicerae with proximo-lateral projections and two modified hairs on distal apophyses as in other species above. Palps as in Figure 7a, b; coxa unmodified, trochanter with short retrolateral and long ventral apophyses, the latter with distal modified hair (Figure 8d); femur with three small apophyses retrolaterally; procursus strongly bent dorsally, with distinctive distal structures (Figure 8e); genital bulb with distinctive uncus and appendix and slightly sclerotized embolus (Figures 7a, 8b, c, 9c). Retrolateral trichobothrium of tibia 1 not seen; prolateral trichobothrium apparently absent on tibia 1, present on other tibiae; legs without spines and curved hairs, few vertical hairs; tarsus 4 with single row of serrated hairs ventrally (cf. female below); pseudosegments on tarsi very indistinct (<10 visible distally).

Variation

The other male from the type locality is slightly paler, with less distinct spots on the abdomen. The male from near Cabral has very similar palps, including the shape of the

procursus, but the bulbal apophyses (especially the uncus) differ quite clearly (Figure 9d). This male is therefore assigned tentatively. Tibia 1 in other male from type locality: 6.1; male from near Cabral: 6.5.

Female

In general similar to male, but abdomen tip longer. AME pigment always present, but lenses indistinct (Figure 8f), in the dissecting microscope sometimes not visible. Epigynum with median rounded projection (Figures 7c, 8k), with distinctive internal sclerotized structures and roundish pore plates (Figures 7d, 8l, m). Palpal tarsus with short distal coneshaped claw, pair of strong hairs, and capsulate tarsal organ (Figure 8h). Tibia 1 in three females from type locality: 4.6–4.7; female from near Cabral: 4.6; females from Santo Domingo: 3.9, 4.3. Tarsus 4 with single row of serrated hairs ventrally (Figure 8g). Spinnerets as in Figure 8i, ALS with one widened, one pointed, and five cylindrically shaped spigots (Figure 8j), PMS with two small pointed spigots, PLS without spigots.

Distribution

Known from three localities in southern Dominican Republic (Figure 10). Note that the specimens from two of these localities are assigned tentatively (see below).

Material examined

Dominican Republic: San Cristóbal Prov.: forest near La Toma: type above, together with 13, 49, same collection data (ZFMK).

Assigned tentatively: Distrito Nacional: Santo Domingo, Jardin Botanico (18°29.7′N, 69°57.2′W), forest along brook, 50 m a.s.l., underside of leaves, 29, 27 November 2005 (B. A. Huber) (ZFMK). Barahona Prov.: near Cabral (18°14.6′N, 71°11.8′W), degraded forest, 40 m a.s.l., underside of palm leaves, 13, 19, 17 November 2005 (B. A. Huber) (ZFMK).