

## ***Pholcus guarfia* Dimitrov & Ribera, 2007**

**Dimitrov, D., Ribera, C. 2007.** The genus *Pholcus* (Araneae, Pholcidae) in the Canary Islands. Zool. J. Linn. Soc. 151: 59-114.

p. 62

### ***PHOLCUS GUADFIA* SP. NOV. (FIGS 1–7)**

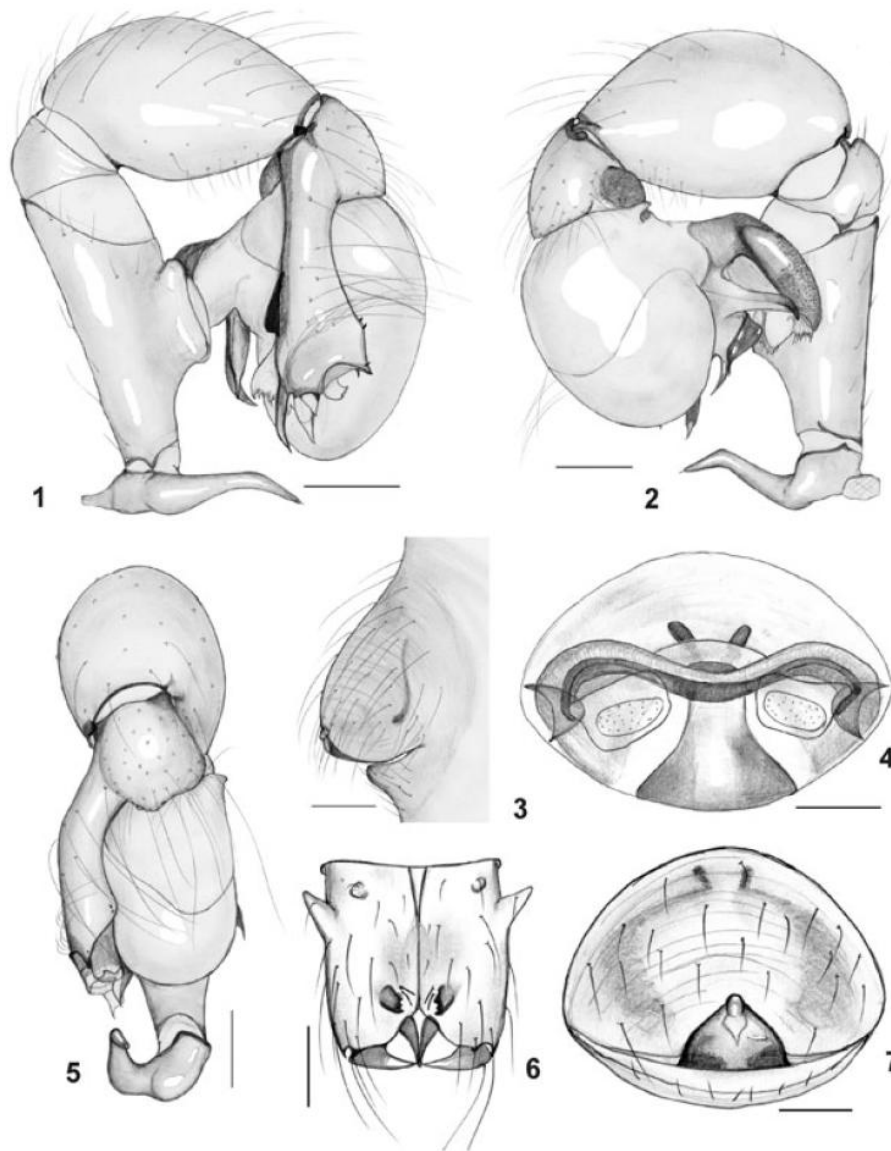
*Holotype*: m, SPAIN, Canary Islands, Lanzarote, Baranco de la Espoleta, 1.ii.2003, Dimitrov & De Mas leg. (direct collection) (CCRUB 4578–172).

*Paratypes*: Same data as for holotype, 1 m, 4 ff (CCRUB 4583-172, 4579-172); 1 m and 1 juv. same data as for holotype (ULL AÑ-2151); 2 ff (CCRUB 4677-173, 4678-173).

*Etymology*: The species name honours Guadarfia, last king of the native inhabitants (*guanches*) of Lanzarote Island. Noun in apposition.

*Diagnosis*: Distinguished from similar congeners (*P. edentatus* and *P. fuerteventurensis*) by the larger and heavily sclerotized apical apophysis of the procurus; the presence of four small dorsal spines on the procurus, as well as by a nearly straight and sharpened apophysis of the genital bulb appendix (Fig. 2). Other important characteristics are the shape of the uncus and the conspicuously curved trochanteral apophysis. Females are distinguished by the shape of the triangular plate of the epigynum and the morphology of the vulva (Figs 4, 7).

*Description*: Male (Holotype): prosoma oval with brownish-yellow colouring. Dorsally with brownish marking divided into two parts by a yellowish fovea. Each part subdivided once more by yellow-coloured zones. Margins of the brownish pigmented area irregular. Well-marked fovea. Elevated ocular area. The two lateral triads on short cylindrical outgrowths with darker brownish colour. AME at the height of the upper margin of the ALE. Frontally, the ocular elevation darker with dark brown marking, starting close to the top of the AME and extending to the base. Diameter of AME one-third the diameter of ALE. Distance between AME and ALE half the diameter of ALE.



**Figures 1-7. *Pholcus guararfia* sp. nov.:** 1, male palp, prolateral; 2, male palp, retrolateral; 3, epigynum, lateral; 4, vulva, dorsal; 5, male palp, frontal; 6, male chelicerae, frontal; 7, epigynum, ventral. Scale bars 0.2 mm.

Dorsally, the ocular elevation carries two rows of long hairs. Chelicerae brownish with dark brown distal cheliceral apophyses (Fig. 6). Distal cheliceral apophyses with two modified hairs at the tip. Upper margin of the proximolateral apophyses higher than the base of frontal prominences. Legs and palp with brownish colouring slightly darker than prosoma. Palp as in Figures 1, 2 and 5. Opisthosoma cylindrical with brownish colour. Dorsally, ten darker spots are visible, grouped into two longitudinal rows – five in each. The first two spots in each row are larger, with ellipsoid

shape while the last three are smaller, rounded and closer to the central axis of the opisthosoma. Ventrally, a darker band is visible over the gonopore. Spinnerets marked by brownish colouring.

Female: prosoma as in male but with lighter colouring; dorsally, the darker markings appear smaller; ocular area less elevated and the eyes closer. Distance between AME and ALE less than half the diameter of ALE. Dark brown areas surrounding the eyes reduced in comparison with male. Chelicerae brownish without apophyses. Opisthosoma possesses a shape and

pigmentation similar to male. Epigynum with relatively small triangular plate, brownish in colour. Epigynum and vulva as depicted in Figures 3, 4 and 7.

**Measurements:** Male: prosoma 1.3 long, 1.7 wide. Opisthosoma 3.7 long, 1.5 wide. Total body length 5.0. Leg I, femur 10.4, patella 0.5, tibia 9.1, metatarsus 14.7, tarsus 1.6, total 36.3. Palp: femur 0.6, patella 0.2, tibia 0.7, procurus 0.7. Female: Prosoma 1.5 long, 1.6 wide. Opisthosoma 3.7 long, 1.6 wide. Total body length 5.2. Leg I, femur 8.6, patella 0.6, tibia 8.7, metatarsus 13.9, tarsus 1.7, total 33.5.

**Distribution:** This species is endemic to Lanzarote and is known only from the type locality (Fig. 276).

**Natural history:** *P. guarafia* was collected in an open valley with heavily eroded margins and very scarce vegetation at 20–50 m above sea-level. This spider lives in spaces between the substrate and the bottom of large stone blocks, which are scattered among the limits of the ravine. It builds small webs attached to smooth surfaces free of sand or other materials.

**Dimitrov, D., Arnedo, M.A., Ribera, C. 2008.** Colonization and diversification of the spider genus *Pholcus* Walckenaer, 1805 (Araneae, Pholcidae) in the Macaronesian archipelagos: Evidence for long-term occupancy yet rapid speciation. *Mol. Phyl. Evol.* 48: 596-614.

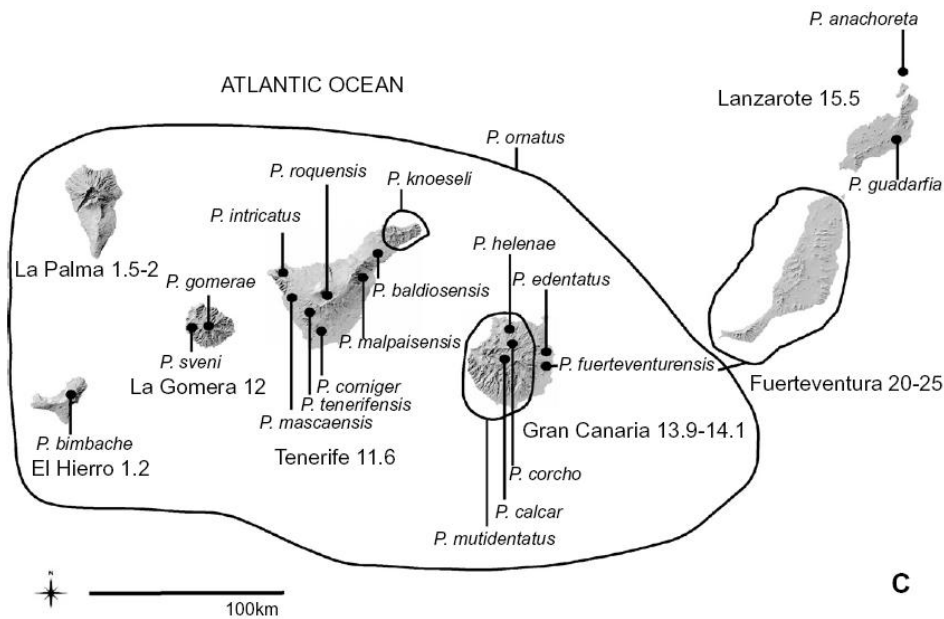


Fig. 1. (A) Map of the Macaronesian biogeographical region. (B) Known distribution of the Madeiran and north-west African *Pholcus* species. (C) Known distribution of the Canarian *Pholcus* species. Numbers following island names denote their estimated maximum age in Mya.

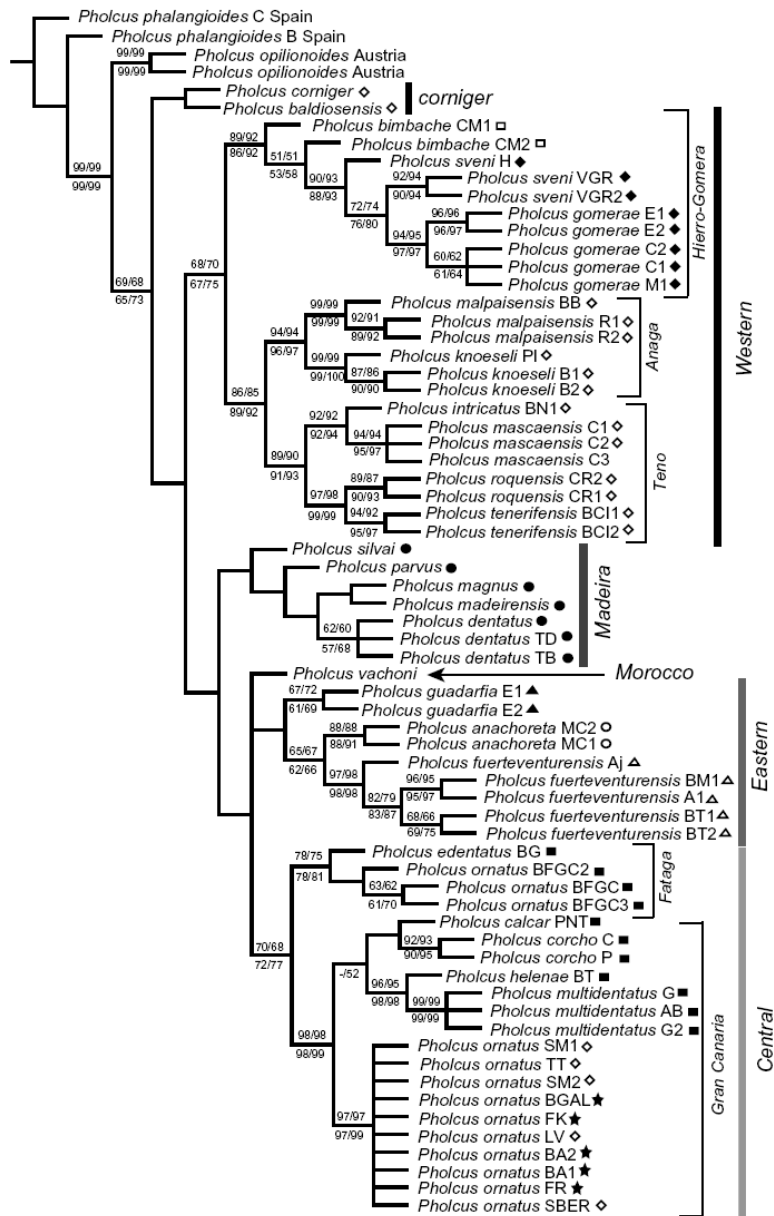


Fig. 5. Strict consensus of the 4 most parsimonious trees ( $L = 2442$ ,  $CI = 0.534$ ,  $RI = 0.881$ ) found by MP analysis of the combined macaronesia data set. Support values higher than 50 are given as follows, bootstrap/Poisson bootstrap above branches and jackknife/symmetric resampling below branches. Geographic localities of the Macaronesian species are labeled as follows, Tenerife, rhomb; La Gomera, filled rhomb; El Hierro, square; Gran Canaria, filled square; Fuerteventura, triangle; Lanzarote, filled triangle; Montaña Clara, circle; Madeira, filled circle; La Palma, star.