

## ***Pholcus tenerifensis* Wunderlich, 1987**

**Wunderlich, J. 1987.** Die Spinnen der Kanarischen Inseln und Madeiras. Triops Verlag. Pp. 1-435.

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*Pholcus tenerifensis* n.sp. (Abb.84-92)

**Material:** Teneriffa, Barranco del Infierno (oberer Abschnitt), unter am Boden liegenden Steinen und an schattigen, senkrecht abfallenden Felswänden; 4♂ 4♀ 1juv. JW leg. in IV; Holotypus (♂), 3♂ 4♀ 1 juv. SMF.

**Diagnose:** ♂ : Procursus mit 2 kurzen Börstchen übereinander, distal mit tief gegabelter Lamella, die lange, spitze Äste trägt (Abb.86). ♀ : Epigyne (Abb.91) hinten stärker sklerotisiert, medial aber aufgeheilt.

### Beschreibung:

Maße (♂ ♀ in mm): Gesamt-Länge 5.5-6.0, Prosoma: Länge 1.5, Breite 1.6; Bein I (♂): Femur 11.5, Patella 0.7, Tibia 12.3, Metatarsus 20.0, Tarsus 2.5; Tibia II 8.5, Tibia III 5.5, Tibia IV 7.7; ♀ -Metatarsus I 15.5.

Färbung: Prosoma dorsal mit breiter, dunkler Zeichnung, lateral aufgeheilt, Sternum grau, variabel mehr oder weniger stark aufgeheilt. Beine geringelt. Opisthosoma dorsal mit 3 Paar länglichen, weit getrennten Flecken und hinten 1 Paar runden Flecken.

♂ -Cheliceren (Abb.84): Äußerer Zahn nahe der Basis.

Beine (insbesondere beim ♂) sehr lang, Opisthosoma langgestreckt.

♂ -Pedipalpus (Abb.85-90): Trochanter mit langem, schlankem Sporn, Femur ventral mit verbreitertem Auswuchs, Uncus distal kaum schmaler, Appendix breit, Procursus mit 2 kurzen Börstchen übereinander, Lamella mit gegabeltem Zahn, dieser mit langen, spitzen Ästen und kleinen Zähnen am Grunde der Gabelung.

Epigyne (Abb.91) deutlich vorstehend, hinten stärker sklerotisiert, medial aber aufgeheilt. "Knöpfchen" mäßig groß, langoval; Durchmesser quer 0.08mm. Verhältnis von Breite zu Länge 2.0.

Vulva: Abb.92.

**Beziehungen:** Sie bestehen am ehesten zu *P. sveni* n.sp.; bei *P. sveni* ist aber der Appendix breiter, seine Apophyse ist viel länger und kaum sklerotisiert. Im Gegensatz zu allen anderen

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bekannten Arten ist bei *P. tenerifensis* die Lamella des Procursus zweiteilig (mit 2 divergierenden Zähnen) und der hintere, dunkle Rand der Epigyne ist medial aufgeheilt.

**Verbreitung:** Teneriffa.

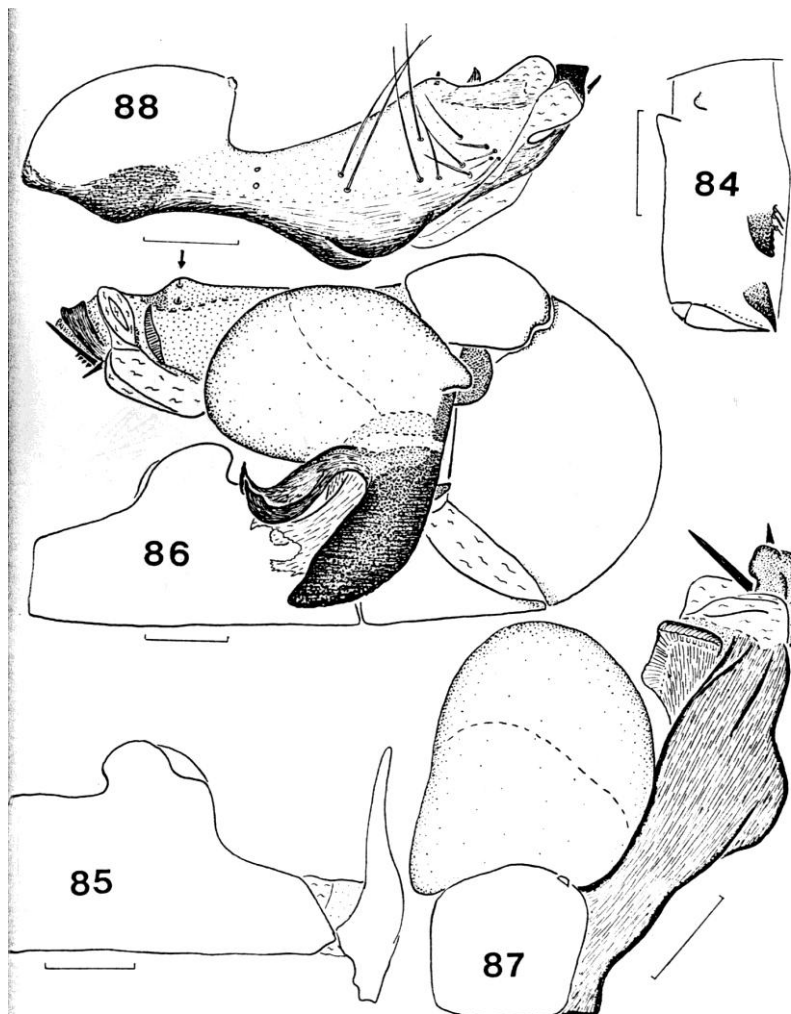
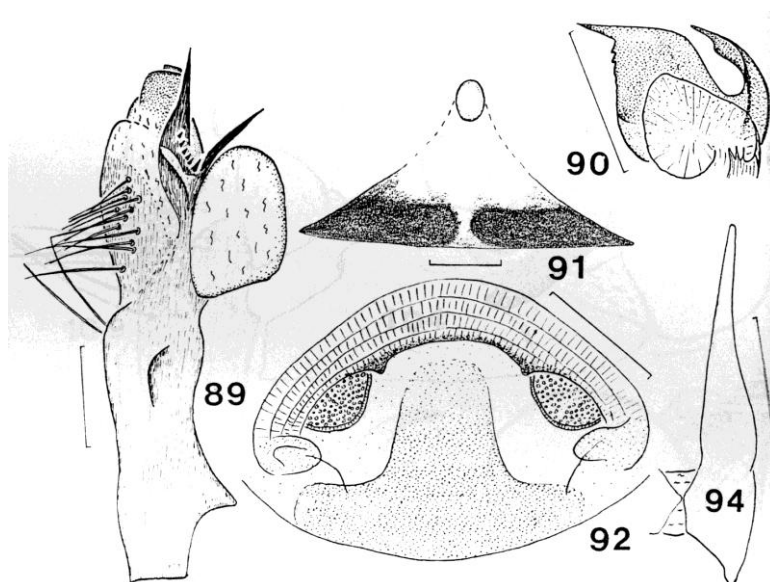


Fig.84-92) *Pholcus tenerifensis* n. sp.: 84) right  $\delta$ -chelicera frontal; 85-90) right  $\delta$ -pedipalpus; 85) trochanter and femur prolateral; 86-87) pedipalpus prolateral and dorsal; 88-89) pro-cursus retrolateral and ventral; 90) appendix apical, with claw-like apophysis (right) and transparent distal embolus-structure (in front); 91-92)  $\varnothing$ , epigynum ventral and vulva dorsal.- M: Fig.92) 0.5mm, the others 0.2mm.



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

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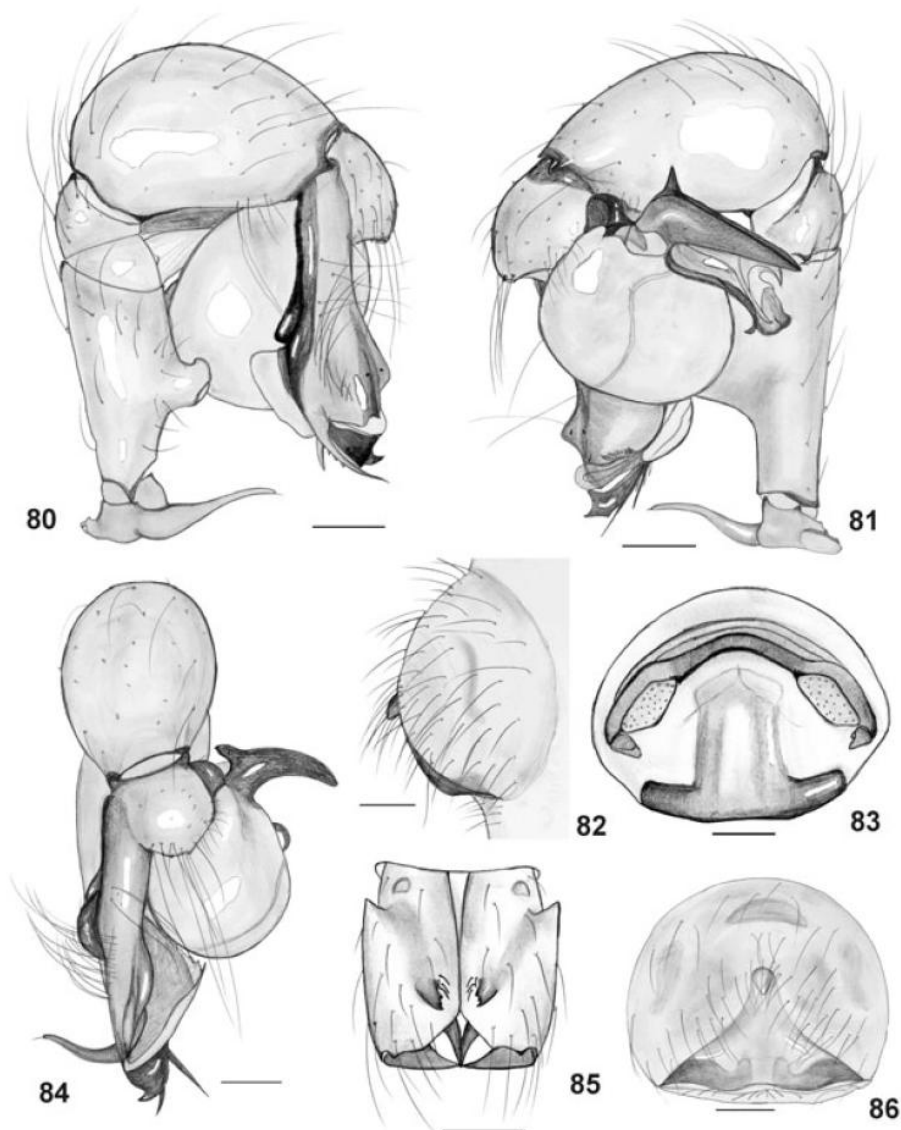
*PHOLCUS TENERIFENSIS* WUNDERLICH, 1987  
(FIGS 80–98)

*Pholcus tenerifensis* Wunderlich, 1987: 79, figs 84–92.

*Material examined:* 1 m, holotype, from Barranco del Infierno, Tenerife, Canary Islands, Spain (SMF 35553); 2 mm, 4 ff, 2 juv., Barranco del Infierno, Tenerife, 2.iii.2002, Dimitrov & De Mas (CCRUB 4513-170, 4514-170, 4625-173, 4665-173).

*Diagnosis.* *P. tenerifensis* is easily distinguished from similar congeners, *P. roquensis* and *P. knoeseli*, by the shape of the procurus (Figs 80, 84, 89, 96), as well as by the shape of the apical apophysis of the procurus, which bifurcates near the base with one branch curved and much longer than the other (Fig. 94). Other distinctive characteristics include the sharper angle of the uncus' curvature (Figs 81, 91), the longer trochanteral apophyses, and the shape of the appendix of the bulb (Figs 81, 91). Distinctive characteristics for the female include the shape of the epigynal triangular plate, which is higher, and the morphology of the vulva (Figs 83, 86).

*Description:* Male: prosoma rounded, yellowish in colour. Dorsally, with a zone of brownish pigmentation over the thorax. Well-marked, yellowish fovea, separates the brownish marking into two parts. Ocular area elevated with darker marking frontally. Ocular area surrounding the eyes has dark brown pigmentation. Distance between AME and ALE half the diameter of ALE. ALE diameter two-fold greater than diameter of AME. Yellowish sternum with brownish borders. Chelicerae darker than the rest of the prosoma, featuring dark brown distal cheliceral apophyses with bristles near their base. Distal apophyses with two modified hairs (Fig. 88). Apex of proximolateral apophyses extends past the base of frontal prominences. Chelicerae as in Figures 85, 87, 90. Palps as in Figures 80, 81, 84. Procurus very wide distally (Fig. 89). Terminal apophysis of the procurus heavily sclerotized with well-developed conical outgrowth (Figs 89, 95). Apical apophysis features one very long sharpened outgrowth and various shorter spines (Fig. 94). Procurus with two retrolateral short spines (Fig. 93). Tarsal organ as in Figure 98. Opisthosoma yellow-brownish, cylindrical in shape. Dorsally, two longitudinal rows of darker spots are visible, each row comprising four spots, the last much smaller than the



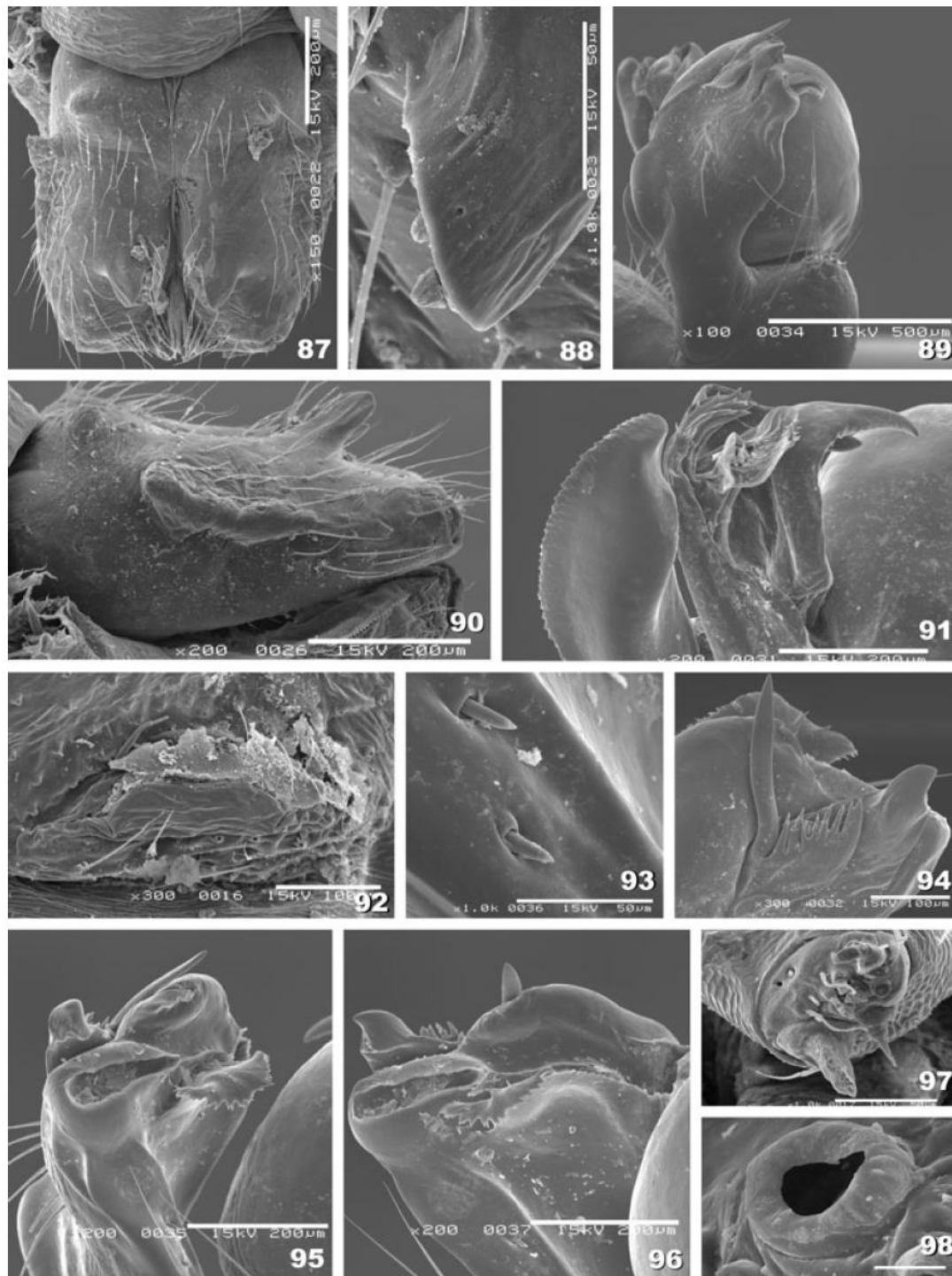
**Figures 80–86.** *Pholcus tenerifensis*: 80, male palp, prolateral; 81, male palp, retrolateral; 82, epigynum, lateral; 83, vulva, dorsal; 84, male palp, frontal; 85, male chelicerae, frontal; 86, epigynum, ventral. Scale bars 0.2 mm.

others. Ventrally, the genital area darker in colouring. Gonopore as in Figure 92. Spinnerets with brownish margins. ALS as in Figure 97.

Female: prosoma as in male but with lighter pigmentation. Ocular area less elevated; sternum has a darker central zone, the rest lighter than in the male. Chelicerae without apophyses and yellowish in colour. Shape and colour of opisthosoma as in male. Epigynum slightly elevated with triangular plate dark brown in colour. Epigynum as in Figures 82, 86; vulva as in Figure 83.

**Measurements:** Male: Prosoma 1.3 long, 1.5 wide; opisthosoma 3.7 long, 1.5 wide. Total body length 5.0. Leg I, femur 11.2, patella 0.6, tibia 11.7, metatarsus 15.6, tarsus 1.5, total 40.6. Palp, femur 0.9, patella 0.2, tibia 0.9, procursus 1.0. Female: Prosoma 1.7 long, 1.9 wide; opisthosoma 4.6 long, 1.9 wide. Total body length 6.3. Leg I, femur 9.7, patella 0.8, tibia 10.7, metatarsus 16.6, tarsus 2.2, total 40.0.

**Distribution:** This species is only known to inhabit the Barranco del Infierno on Tenerife Island (Fig. 276).



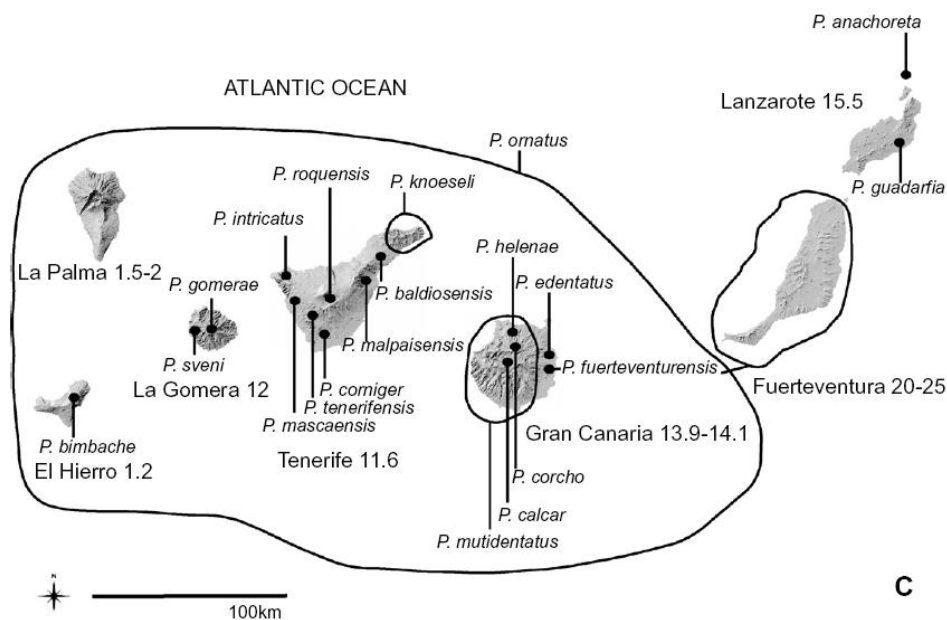
**Figures 87–98.** *Pholcus tenerifensis*: 87, male chelicerae, frontal; 88, distal apophysis of male chelicerae, frontal; 89, male palp, prolateral; 90, male chelicerae, lateral; 91, projections of the bulb, prolateral; 92, male gonopore, ventral; 93, small retrolateral teeth of the procursus, retrolateral; 94, apical apophysis of the procursus, ventral; 95, procursus, dorso-retrolateral; 96, procursus, retrolateral; 97, anterior lateral spinnerets; 98, male tarsal organ. Scale bars: 87, 90, 91, 95, 96, 200 µm; 92 and 94, 100 µm; 88, 93, 97, 50 µm; 89, 500 µm; 98, 20 µm.

*Natural history:* *P. tenerifensis* lives under stones or in small cavities on the sides of the higher and more humid part of the Barranco del Infierno. All specimens that we collected were found close to pools of water and in some cases on stones directly above.

*Comments.* *P. tenerifensis* is a member of the Tenerifean endemic complex. This species possesses some of the characteristics of this group: the terminal apophy-

sis and the shape of the procurus' apical apophysis are more fully developed. The closest species are *P. roquensis* and *P. knoeseli*.

**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.

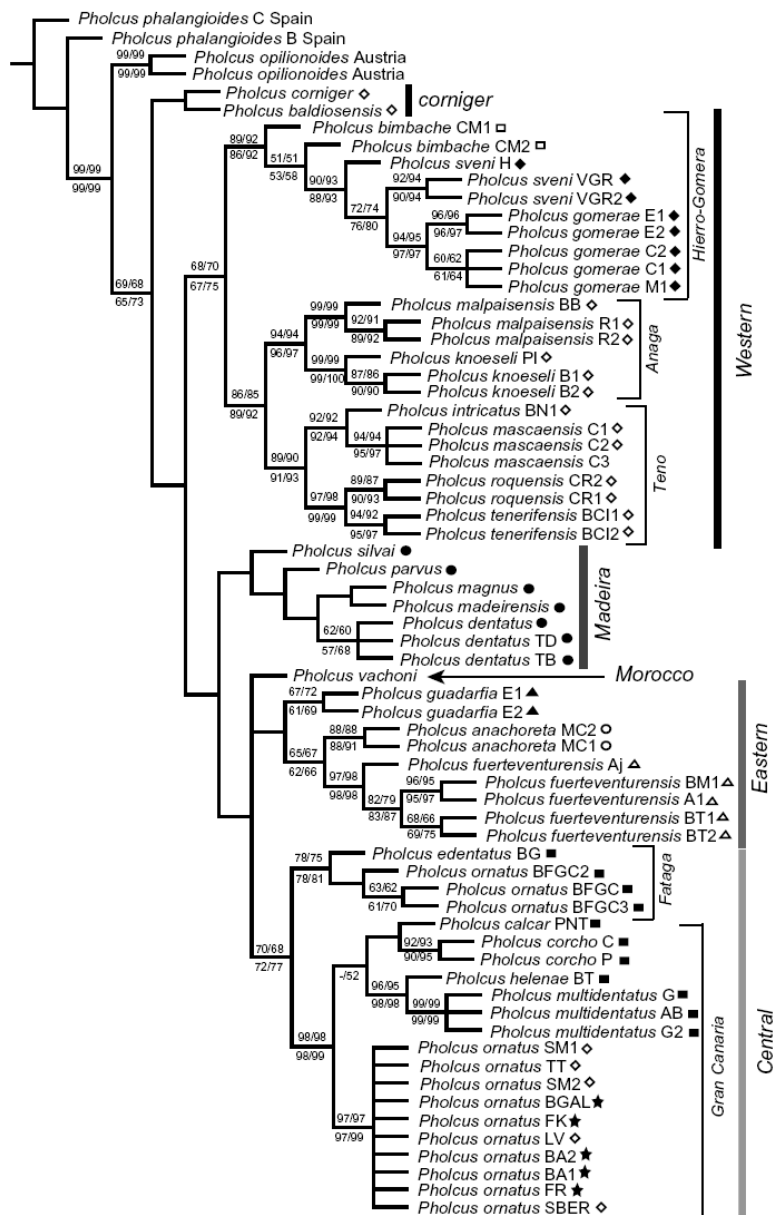


Fig. 5. Strict consensus of the 4 most parsimonious trees ( $L = 2442$ ,  $CI = 0.534$ ,  $RI = 0.881$ ) found by MP analysis of the combined macaronesia data set. Support values higher than 50 are given as follows, bootstrap/Poisson bootstrap above branches and jackknife/symmetric resampling below branches. 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.

**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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For example, *Ph. roquensis* and *Ph. tenerifensis* are extremely similar both morphologically and in the molecular sequences analyzed by Dimitrov *et al.* (2008). The apical procursus apophyses and female internal genitalia that are said to differ between the species appear practically identical in the figures (figs. 94/137 and 83/124 in Dimitrov & Ribera 2007); the shapes of the unci appear distinct in the drawings (figs. 81/119 in Dimitrov & Ribera 2007), but the SEM photo of the uncus of *Ph. tenerifensis* (fig. 91 in Dimitrov & Ribera 2007) shows that this is simply the result of different angles of view in the drawings. The remaining differences are so minimal that the usefulness of such extreme species splitting should be reconsidered, especially since it has a direct impact on measures like speciation rate which is considered extremely high in Macaronesian *Pholcus* (Dimitrov *et al.* 2008).