Pholcus calcar Wunderlich, 1987

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

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Pholcus calcar n.sp. (Abb.157-164)

Material: Gran Canaria, Barranco de Agaete, Los Berrazales, an überhängenden, schattigen Felsen, 1♂ 2♀ JW leg. in VIII; Holotypus (♂), 2♀ (Paratypoide) SMF.

Diagnose: ♂ -Pedipalpus (Abb.158-163): Sporn des Trochanter lang und schlank, Uncus distal schmal, Procursus mit 2 langen Börstchen, diese deutlich getrennt, das distale in fast senkrechter Position. ♀ : Epigyne wie bei P. ornatus Bösenberg 1895 (Abb.139-140).

Beschreibung:
Maße (♂ ♀ in mm): Gesamt-Länge 5.2-6.5, Prosoma: Länge 1.5, Breite 1.7; Bein I (♂): Femur 10.5, Patella 0.8, Tibia 10.5, Metatarsus 18.5, Tarsus 2.5; Tibia II 7.2, Tibia IV 6.7.Länge des Sporns des Trochanters (gemessen frontal bis zur Basis) 0.37. Färbung wie bei P. ornatus Bösenberg 1895.

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♂ -Cheliceren: Abb.157.
♂ -Pedipalpus und Epigyne: Siehe die Diagnose. Vulva: Abb.164.

Beziehungen: Es bestehen enge Beziehungen zu P. ornatus und den endemischen Arten von Gran Canaria. Die ♀ der Arten lassen sich nach der Epigyne nicht unterscheiden, die ♂ nach folgenden Genital-Strukturen: Der Sporn des Trochanters ist bei P. calcar wesentlich länger, Appendix- und Procursus-Strukturen sind anders, z.B. stehen die Börstchen des Procursus bei P. calcar in anderer Position, das distale Börstchen steht nicht auf einer häutigen Struktur, und das Zähnchen distal der Börstchen ist deutlich kleiner.

Verbreitung: Gran Canaria.

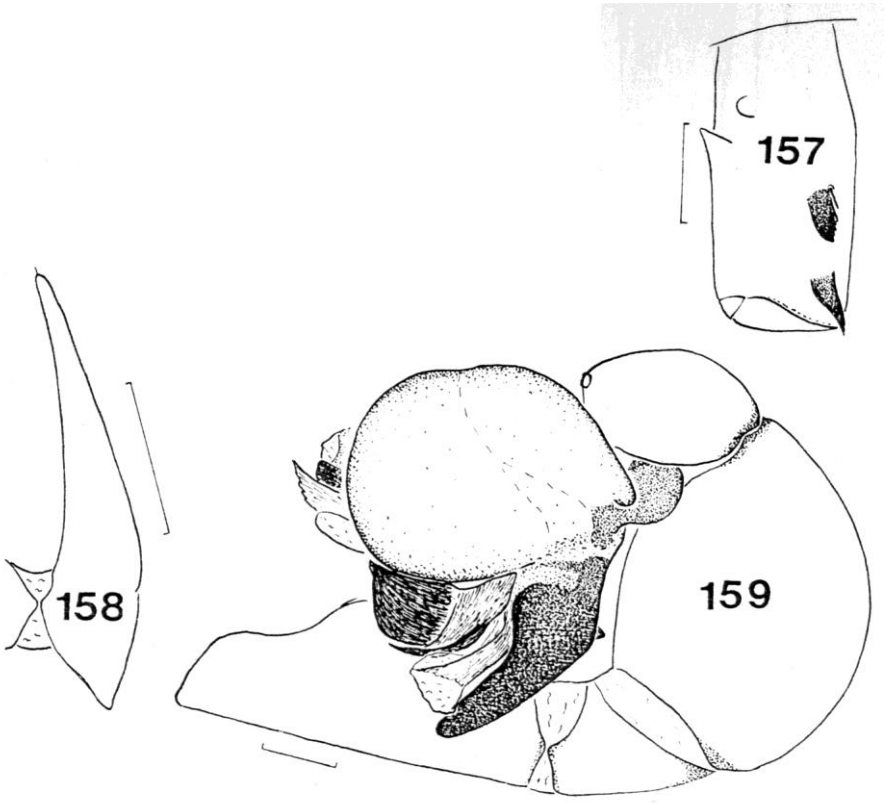
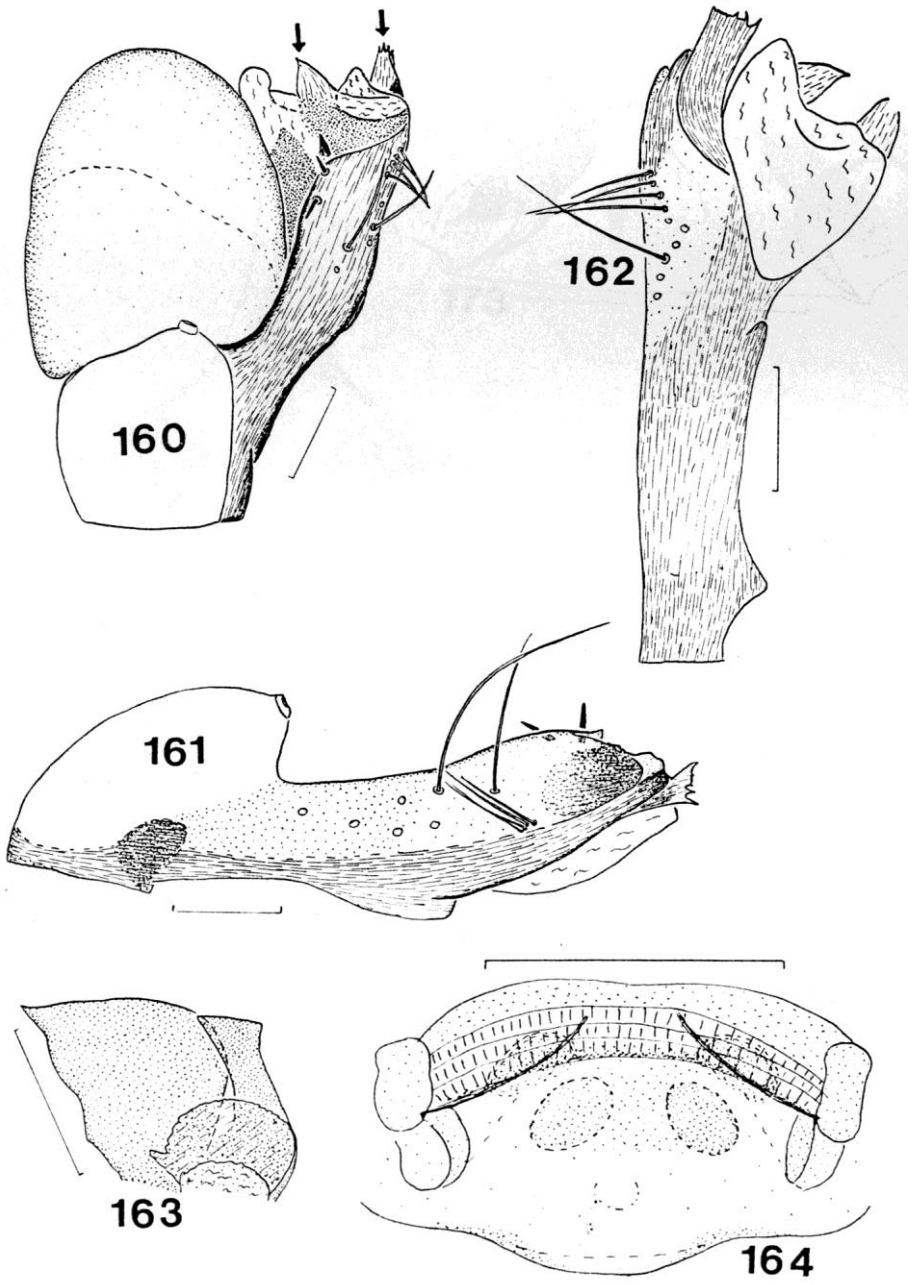


Fig.157-164) Pholcus calcar n.sp.: 157) right ♂ -chelicera frontal; 158-163) right ♂ -pedipalpus; 158) trochanter retrolateral; 159-160) pedipalpus prolateral and dorsal; 161-162) procursus retrolateral and ventral; 163) appendix apical; 164) ♀ , vulva dorsal. - M: Fig.164) 0.5mm, the others 0.2mm).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Dimitrov, D., Ribera, C. 2007. The genus *Pholcus* (Araneae, Pholcidae) in the Canary Islands. Zool. J. Linn. Soc. 151: 59-114.

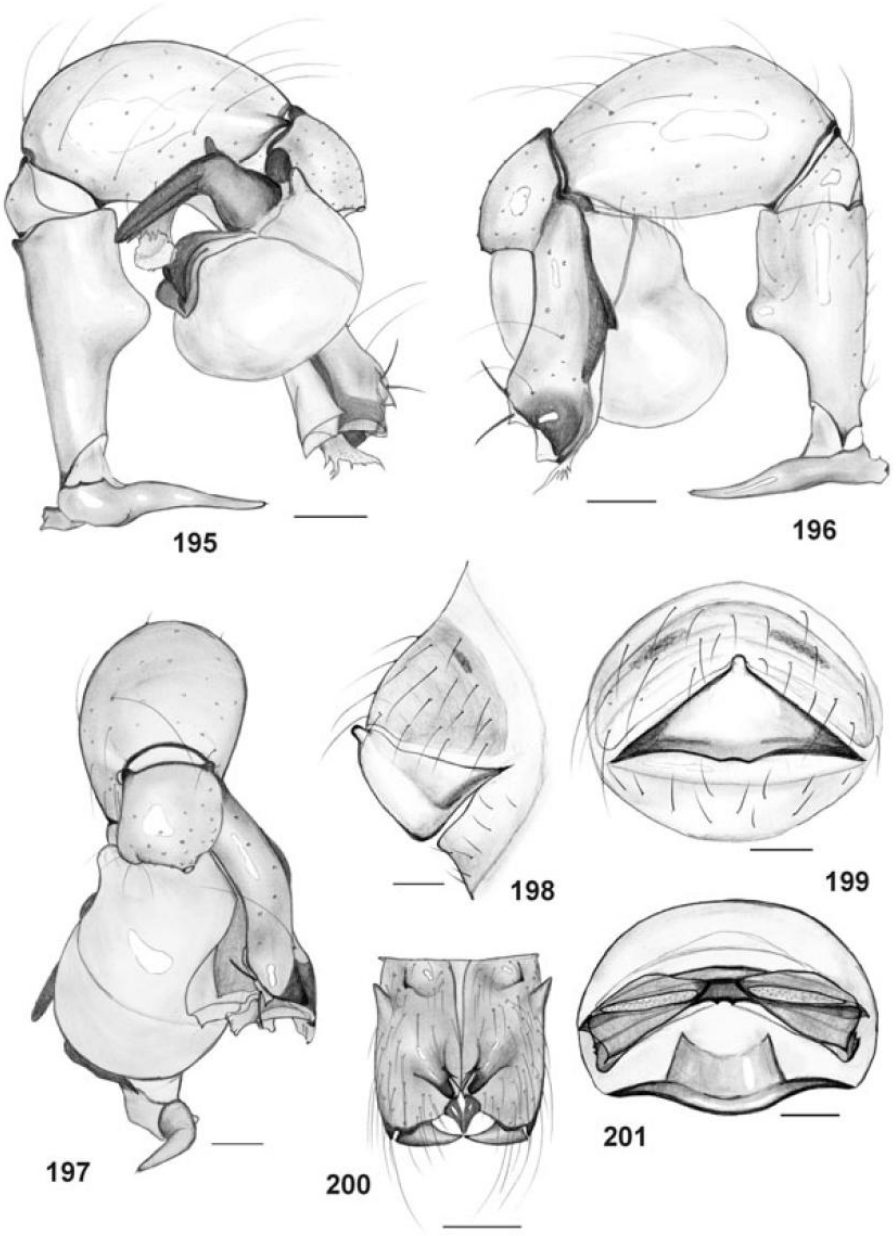
PHOLCUS CALCAR WUNDERLICH, 1987 (FIGS 195–211)

Pholcus calcar Wunderlich, 1987: 84, figs 157–164.

Material examined: 1 m, 2 ff, 1 juv., Tamadaba (recreation zone), Gran Canaria, Canary Islands, Spain, 6.v.2004, Dimitrov & Txasko (CCRUB 4583-172, 4584-172).

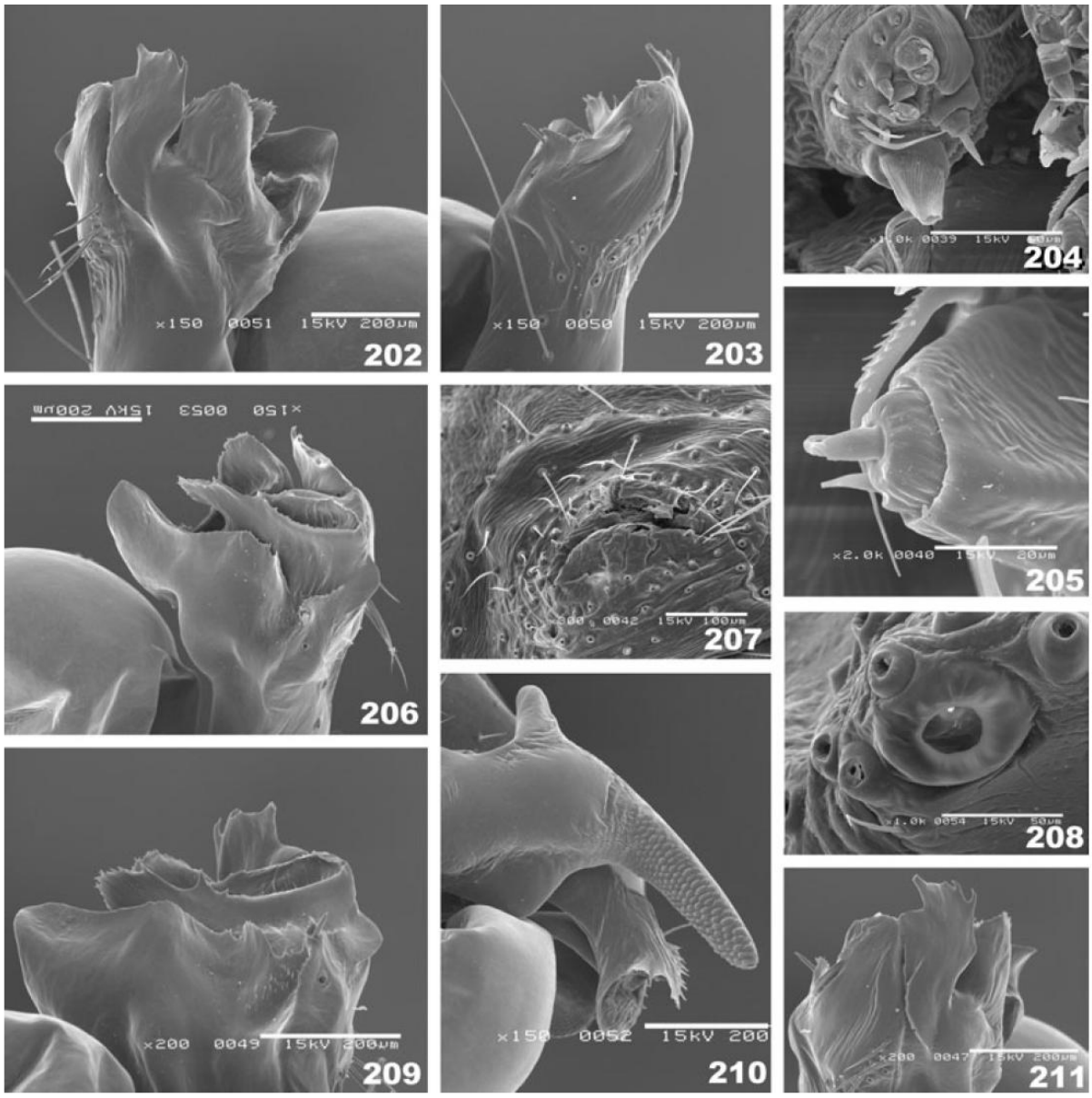
Diagnosis: Very similar to *P. corcho* and *P. ornatus*, but distinguished by the following characteristics: well-developed apical apophysis of the procursus, which features irregular margins with small outgrowths (Fig. 211); the shape of the appendix of the genital bulb (Fig. 119); the longer trochanteral apophysis and the shape of the uncus, which forms an angle of nearly 90° at its inflection point (Figs 195, 210). The females are distinguished by the shape of the triangular plate of the epigynum (Fig. 199) and the morphology of the vulva (Fig. 201).

Description: Male: prosoma rounded with yellowish colouring. Dorsally, a brownish colouring extends over the thorax. Well-marked and yellowish fovea. Elevated ocular area with darker pigmentation around the eyes. Distance between AME and ALE slightly larger than the ALE diameter. Diameter of



Figures 195–201. *Pholcus calcar*: 195, male palp, prolateral; 196, male palp, retrolateral; 197, male palp, frontal; 198, epigynum, lateral; 199, epigynum, ventral; 200, male chelicerae, frontal; 201, vulva, dorsal. Scale bars 0.2 mm.

AME half the diameter of ALE. Yellowish-brown sternum with darker margins. Chelicerae yellowish with darker distal cheliceral apophyses. Distal apophyses have two modified hairs. Upper margin of proximolateral apophysis (proximal teeth) extends past the base of frontal prominence. Frontal prominences with darker outgrowths. Chelicerae as in Figure 200. Palp as in Figures 195–197. Procursus (Figs 202, 203, 206, 209) with two long dorsal spines placed on a small dorsal apophysis. Dorsal apophysis with short, sharpened outgrowths near its base. Apical apophysis of the procursus features a couple of short outgrowths, close to its ventral extreme (Fig. 211). Tarsal organ as in Figure 208. Opisthosoma cylindrical with brownish-grey colouring. Dorsally, eight darker spots are divided between two



Figures 202–211. *Pholcus calcar*: 202, procursus, ventral; 203, procursus, prolateral; 204, anterior lateral spinnerets; 205, posterior median spinnerets; 206, procursus, dorso-retrolateral; 207, male gonopore, ventral; 208, male tarsal organ; 209, dorsal apophysis of the procursus, dorsal; 210, projections of the bulb, retrolateral; 211, apical apophysis of the procursus, ventral. Scale bars: 202, 203, 206, 207, 209–211, 200 μm; 204, 208, 50 μm; 207, 100 μm; 205, 20 μm.

longitudinal lines, the first three spots in each line oval, the last rounded and smaller. Ventrally, two small brownish spots appear above a slightly elevated genital zone. Gonopore as in Figure 207. Spinnerets as in Figures 204, 205.

Female: prosoma as in male but ocular elevation less pronounced. Darker colouring over thorax reduced, and the hairs on the dorsal side of the ocular elevation much shorter. Chelicerae darker than the prosoma with brownish colouring but without apophyses. Sternum as in male. Opisthosoma cylindrical with colouring and dorsal spots as in male. Ventrally triangular plate of the epigynum with dark brown colouring. The epigynum area above the plate also dark

brown but lighter in tone. Epigynum and vulva as in Figures 198, 199, 201.

Measurements: Male: Prosoma 1.1 long, 1.2 wide. Opisthosoma 3.9 long, 1.5 wide. Total body length 5.0. Leg I, femur 10.3, patella 0.7, tibia 11.7, metatarsus 19.1, tarsus 2.9, total 44.7. Palp, femur 0.9, patella 0.2, tibia 1.0, procursus 1.0. Female: Prosoma 1.5 long, 1.7 wide. Opisthosoma 3.9 long, 1.5 wide. Total body length 5.4. Leg I, femur 11.7, patella 0.7, tibia 11.9, metatarsus 21.5, tarsus 2.2, total 48.0.

Distribution: This species is endemic to Gran Canaria (Fig. 276).

Natural history: The only locality where we could find *P. calcar* was the pine forest of the natural park of Tamadaba at altitudes above 900 m. It lives in natural cavities on the hillsides in shady and humid areas.

Comments: Wunderlich (1987) indicates that the type material of this species is in the collection of SMF but it does not occur in the catalogue and we could not find it. The illustrations in the original description proved to be sufficient to determine these specimens as conspecific with *P. calcar*.

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.

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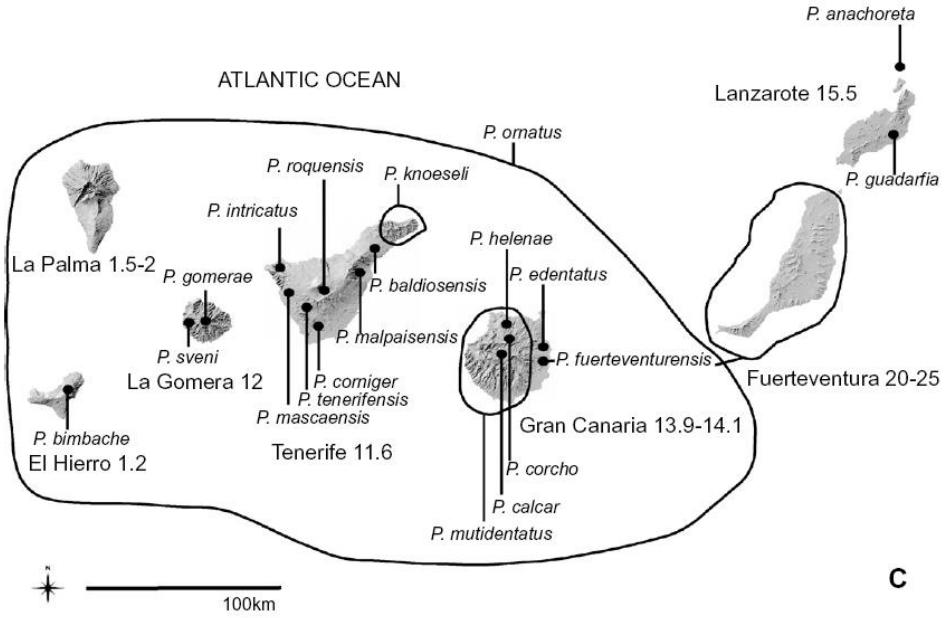

Fig. 1. (A) Map of the Macaronesian biogeographical region. (B) Known distribution of the Madeiran and north-west African *Pholcus* species. (C) Known distribution of the Canarian *Pholcus* species. Numbers following island names denote their estimated maximum age in Mya.

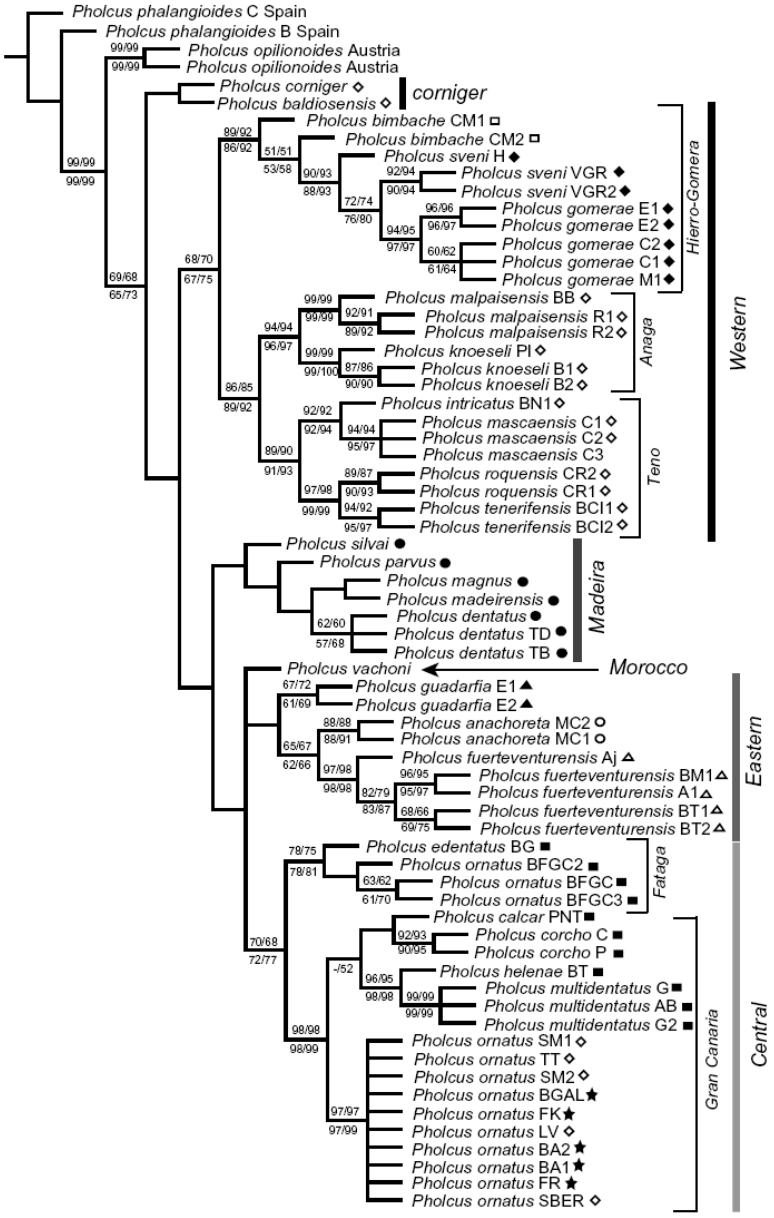

Fig. 5. Strict consensus of the 4 most parsimonious trees (L = 2442, CI = 0.534, RI = 0.881) found by MP analysis of the combined *macaronesia* data set. Support values higher than 50 are given as follows, bootstrap/Poisson bootstrap above branches and jackknife/symmetric resampling below branches. Geographic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