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A NEW GENUS OF THE SPIDER FAMILY DIPLURIDAE FROM CHILE (ARANEAE, MYGALOMORPHAE)

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ABSTRACT

The subfamily Dolichosterninae is newly synonymized with the Diplurinae. A new genus and species, *Mediothele australis*, are established for a Chilean diplurid with six spinnerets but apparently without close relationship to the Hexathelinae.

INTRODUCTION

Traditionally, the Dipluridae have been divided into four subfamilies based primarily on spinneret and tarsal claw characters, without regard for their phylogenetic significance. The Hexathelinae, for example, are defined by the presence of six (rather than four) spinnerets, a character that outgroup comparison with the Mecicobothriidae (apparently the closest relatives of diplurids; Platnick 1977) shows to be plesiomorphic. The subfamily Dolichosterninae (Rainbow and Pülleine 1918, Putrunkevitch 1923) was based on a single female specimen reported to have an unusually long and narrow sternum lacking sigilla; the specimen has been examined and actually has a normal sternum that has been artificially compressed through improper preservation. Since the specimen has two rows of teeth on the superior tarsal claws, the subfamily falls into synonymy with the Diplurinae, which are defined by that character and may well be a monophyletic group. The Macrothelinae, on the other hand, consists merely of those diplurids with four spinnerets that cannot be assigned to the Diplurinae, and hence may possibly be a paraphyletic assemblage.

The new Chilean genus described below highlights the difficulties of this phenetic classification. The spinneret number is six (which would place the genus as a hexatheline), and metatarsi III and IV have preening combs similar to those usually found in hexathelines. Nonetheless, the genus may be more closely related to macrothelines than to any hexatheline; it differs from all known hexathelines (and resembles macrothelines) in being completely devoid of labial and maxillary cuspules. Furthermore, the male palp and the modifications of the first tibia and metatarsus resemble those found in the Australian genus *Cethegus* (Macrothelinae) and in several other South American macrotheline genera. Thus we are unable to place the Chilean form within either subfamily, and merely describe the genus without a certain subfamilial placement because of its importance to future phylogenetic work on the family.

We are grateful to Dr. M. U. Shadab for providing the illustrations.

Mediothele, new genus

Type Species.—*Mediothele australis*, new species.

Etymology.—The generic name refers to the moderately long spinnerets and is masculine in gender.

Diagnosis.—*Mediothele* may be distinguished from all other known diplurids by the combined presence of six spinnerets and a labium and maxillae devoid of cuspules. Furthermore, the genus can be readily separated from the sympatric hexatheline genus *Scotinoecus* by the absence of a palpal conductor.

Description.—Small mygalomorph spiders with three tarsal claws; superior claws with single row of teeth. Six spinnerets, anterior laterals two-segmented and much shorter than single-segmented posterior medians. Posterior lateral spinnerets three-segmented; basal segment with dorsal subsegmentation; apical segment much longer than wide (Fig. 2). Eight eyes in two rows, forming compact group. Fovea small and transverse (Fig. 1). Carapace glabrous. Labium and maxillae lacking cuspules; labium wider than long; maxillae without processes. Sternum with six small sigilla, separated from labium by groove. Chelicerae with single row of teeth on promargin of fang furrow, with single ventral tooth on fang (Fig. 7). Two rows of trichobothria on tibiae, single straight row on metatarsi and tarsi. Metatarsi III and IV with distal preening combs. Males with one large and one small spur on tibia I, and associated thorn on metatarsus I (Figs. 5, 6). Palpal bulb simple, pyriform, with elongate embolus (Figs. 3, 4).

Mediothele australis, new species

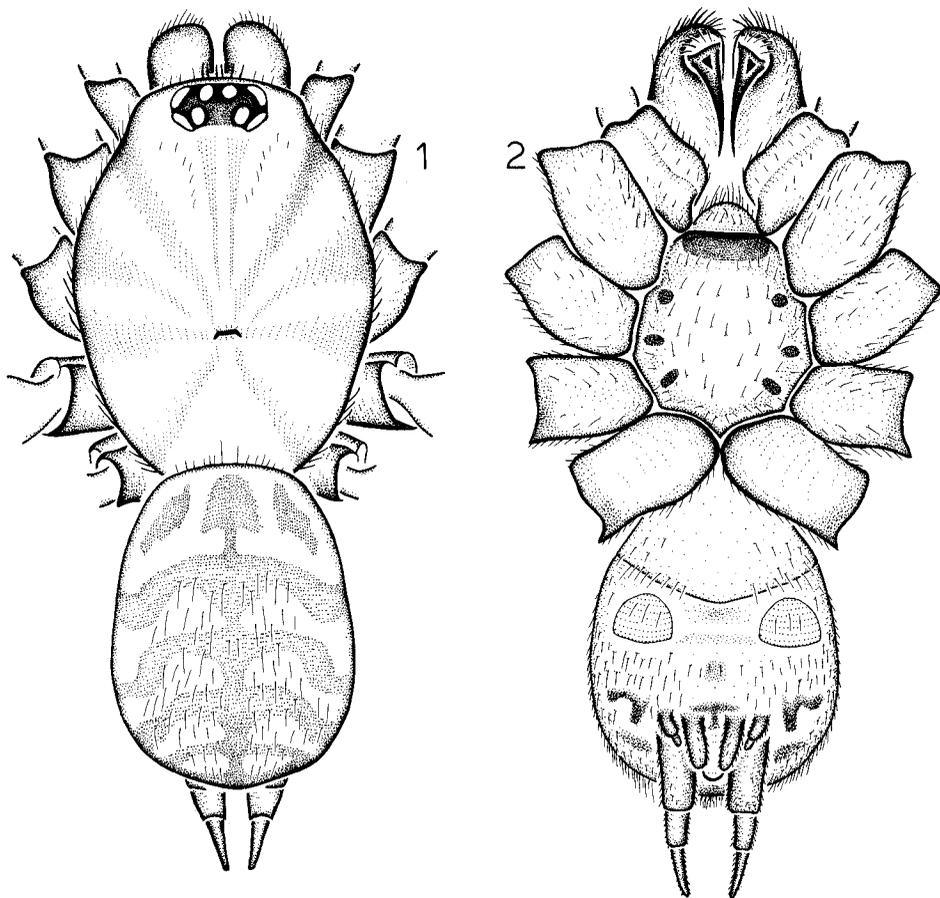
Figs. 1-7

Type.—Male holotype from Hualpén, Concepción, Chile (3 September 1975, A. Quezada), deposited in the American Museum of Natural History.

Etymology.—The specific name refers to the type locality.

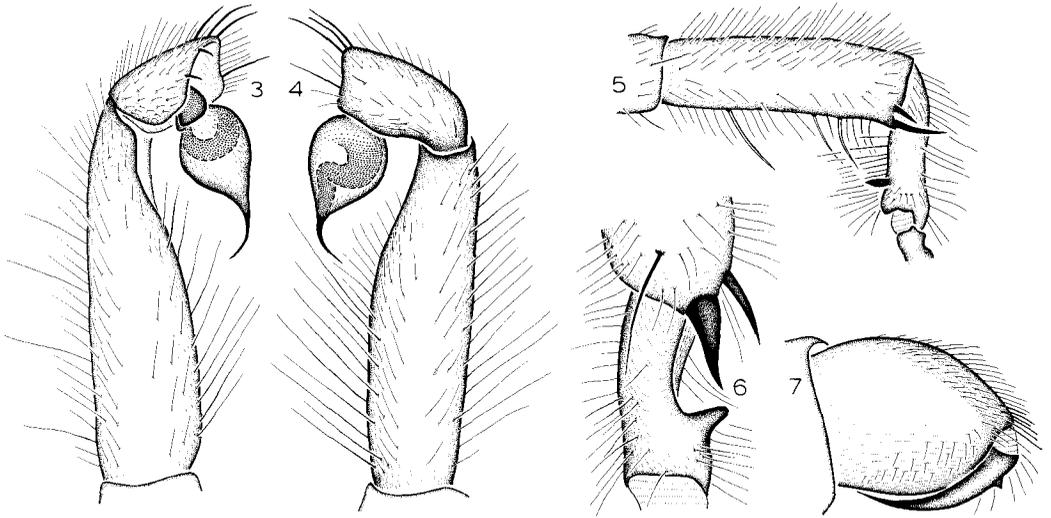
Diagnosis.—With the listed characters of the genus and genitalia as in Figs. 3, 4.

Description.—Total length, including chelicerae, 6.32 mm. Carapace 3.31 mm long, 2.57 mm wide. Abdomen 2.63 mm long, 1.91 mm wide. Carapace and chelicerae uniformly yellowish brown; abdominal dorsum with five brown chevrons posteriorly, with



Figs. 1-2.—Body of *Mediothele australis*: 1, dorsal view; 2, ventral view.

chevrons reduced to pair of brown fields anteriorly; venter mainly white with several small brown fields. Carapace with single row of marginal bristles and 13-15 bristles posterior and lateral of eyes. One pair of short foveal bristles. Some bristles between PME, and on clypeal edge in front of AME. Caput low, gently curved. Clypeus narrow. Fovea a straight wide groove with recurved edges. Eyes occupying about half of cephalic width, ocular area length to width ratio 22:42. Lines joining eye-centers recurved for both rows. Median ocular quadrangle length: front width: back width ratio 20:27:21. Ratio of eye diameters, AME:ALE:PME:PLE, 9:14:10:8. Eye interdistances as proportions of AME diameter: AME-AME 2/9, AME-ALE contiguous, ALE-PLE 3/9, PME-PLE 1/9, PME-PME 13/9. Chelicerae short, slightly geniculate, clothed dorsoapically with numerous curved bristles, almost immovable in their bases. Promargin with eight teeth, basally with an intermediate row of 15 fine denticles irregularly placed. Fang with proximal external tooth. Labium width to length ratio 5:3, quadrangular, anterior edge more or less straight, covered only with long bristles. Maxillae length to width ratio 57:30, quadrangular, with slightly produced posterior basal end, armed only with long bristles. Serrula composed of 15-20 scattered teeth. Sternum cordate, length to width ratio



Figs. 3-7.—*Mediothele australis*: 3, palp, prolateral view; 4, palp, retrolateral view; 5, tibia and metatarsus I, prolateral view; 6, tibia and metatarsus I, dorsal view; 7, chelicera, retrolateral view.

90:76; six sigilla present as ill-defined oval depressions separated from margin by about their respective diameters. Ratio of posterior:median:anterior sigilla diameters: maximal sternal width 5:4:4:76. Leg formula 1423, measurements in mm:

	I	II	III	IV	Palp
Femur	3.04	2.28	2.28	2.80	1.96
Patella	1.64	1.12	1.20	1.20	1.00
Tibia	2.08	1.40	1.28	1.92	1.20
Metatarsus	1.40	2.60	1.73	2.08	---
Tarsus	<u>1.60</u>	<u>1.88</u>	<u>1.20</u>	<u>1.32</u>	<u>0.64</u>
Total	9.76	9.28	7.69	9.32	4.80

Legs covered with bristles but not hairs. Glabrous areas ill-defined on patellae. Tibia I with proximal distoventral spur and proximal spine adjacent to spur base. Metatarsus I with proximoventral erect thorn. Distal half of tarsus I noticeably dilated. No true scopulae but some scopuliform hairs on all tarsi. True spines on all legs: Leg I, femur d5, patella p2, v6 (thickened bristles), tibia v2 (plus spurs), metatarsus with thorn only, tarsus 0; Leg II (regenerated), femur d7, patella 0, tibia v5, metatarsus v5, tarsus 0; Leg III, femur p1, d7, patella 0, tibia p2, d2, r3, v6, metatarsus p3, d1, r2, v8, tarsus 0; Leg IV, femur p1, d7, patella 0, tibia p2, r3, v6, metatarsus p6, r3, v8, tarsus v1; Palp, femur d3, patella d2, tibia 0, tarsus 6 distal. Two preening combs on ventrodistal apex of metatarsi III and IV; those on IV each composed of four teeth of variable length, on III of three teeth and poorly defined. Tarsal organ one-fifth of tarsus from end, roughly the diameter of trichobothrial bases. No lyriform organs evident on posterior patellae or ventral tibiae. Superior tarsal claws with single row of six uniformly spaced teeth; inferior tarsal claw bare. Two rows of four trichobothria on all tibiae; single straight row of four or five trichobothria on all metatarsi and tarsi. Apical segment of anterior lateral spinnerets very small, with about three spigots; posterior medians with numerous spigots. Basal segment of posterior laterals with distinct dorsal subsegmentation slightly evident retrolaterally.

Material Examined.—Only the holotype from central Chile.

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