

Papéis Avulsos de Zoologia

THE GENUS *SCLERODERMA* IN SOUTH AMERICA (HYMENOPTERA, BETHYLIDAE)

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ABSTRACT

Scleroderma spilonotum, sp. n. (type-locality, Brazil, São Paulo, São Paulo), is described as new; notes on other South American species of the genus, as well as a key to these species, are presented.

The genus *Scleroderma* is of nearly world-wide distribution, but has only rarely been reported from South America. Only three species have been described from that continent, but material recently sent to me by Dr. Karol Lenko of the Departamento de Zoologia, Secretaria da Agricultura, São Paulo, includes two species neither of which belongs to any of the described South American species. One appears to represent a species described from the southeastern United States, while the other is new. This report includes a description of this new species, notes on the other species, and a key to the five species reported from South America.

Males of this genus are very rare in collections, and no males of any species have yet been reported from South America. Winged females (which also have well developed ocelli) are also uncommon, and at present winged females are known only in the case of *macrogaster*. The other four species are known only from completely apterous females which lack ocelli. I reviewed some aspects of the structure, biology and distribution of this genus in 1964.

KEY TO SOUTH AMERICAN SCLERODERMA (FEMALES)

1. Length 1.5-2.2 mm; head and thorax light yellow except head sometimes infuscated in front; abdomen fusco-castaneous (first segment may be paler) *formicarius* Kieffer
Length 2.3-4.0 mm; head and thorax not entirely light yellow 2
2. Head and thorax light to dark castaneous, except pronotum with a large, light yellow spot anteriorly; mesoscutum short, about 1.4x as wide as long *spilonotum*, sp. n.
Head and thorax not uniformly castaneous and with a contrasting light yellow spot on the pronotum; mesoscutum

Museum of Comparative Zoology, Harvard University, Cambridge, Mass., U.S.A. This paper is part of a series on the systematics of the American Bethylidae, supported by the National Science Foundation, grant GB-1544.

- arcuately lengthened behind, slightly if at all wider than long 3
3. Mesoscutum and mesopleura considerably darker than the light yellow pronotum and propodeum; sides of propodeum subangular at crest of declivity, as seen from above
 *macrogaster* (Ashmead)
 Mesoscutum and mesopleura not contrastingly darker than adjacent areas; sides of propodeum gently rounded, seen from above 4
4. Body fusco-castaneous except abdomen blackish; length 3.4 mm.
 *iridomyrmicicola* Bruch
 Body rather uniformly light castaneous, including abdomen; length 2.5-3.00 mm *galapagense* Brues

Scleroderma spilonotum, sp. n.

Holotype ♀, São Paulo, S.P., Brazil, 1-15.XI.1967, K. Lenko col. (n.º KL 191); Departamento de Zoologia, Secretaria da Agricultura, São Paulo.

DESCRIPTION OF TYPE FEMALE

Length 3.0 mm; length of head .47 mm, of thorax + propodeum .80 mm, of abdomen 1.73 mm. Wings, tegulae, and ocelli absent. Head and prothorax rufo-castaneous except pronotum light yellow on anterior half; mesothorax and propodeum dark castaneous; abdomen fusco-castaneous; antennae testaceous basally, apical half infuscated; legs dark castaneous except paler at joints, tarsi testaceous. Mandibles broad basally, tapering to a bidentate apex; clypeus short, emarginate. Antennae short, segments 3-12 wider than long. Maximum width of head .84x median length of head; minimum distance between eyes 1.6x height of an eye; distance from eye tops to vertex crest slightly over twice the eye height. Head shining, very weakly alutaceous, obscurely punctate. Dorsum of thorax and propodeum very slightly more evidently alutaceous than head; mesoscutum short, 1.4x as wide as its median length, posterior margin rounded; propodeum about 1.4x as long as its maximum width, very slightly expanded from front to rear, sides gently rounded at crest of declivity. Legs smooth, except upper surface of middle tibia densely covered with bristling setae; front femora twice as long as their maximum width. Abdomen slender, tapering, its maximum width 1.3x that of head.

Paratypes: 9 ♀, same data as holotype (Departamento de Zoologia, Secretaria da Agricultura, São Paulo; 1 deposited in the United States National Museum, Washington, D.C., U.S.A.; 1 deposited in the Museum of Comparative Zoology, Cambridge, Mass., U.S.A.).

VARIATION

The smallest paratype is 2.3 mm long, the largest 3.2 mm. In one specimen, possibly teneral, the entire head, thorax, and propodeum are rufo-testaceous, and the yellow spot on the pronotum, although present, contrasts little with the background. In several

specimens the head and pronotum are nearly as dark as the posterior part of the body. There is no other variation worthy of note.

***Scleroderma macrogaster* (Ashmead, 1887)**

This species occurs throughout the southeastern United States. I have also seen specimens from Hispaniola and Jamaica in the West Indies, as well as from three widely separated localities in Brazil. It is probable that it is widely distributed in tropical America, although one cannot be certain that it was not introduced into Brazil from North America or into North America from Brazil. Two of the five Brazilian specimens I have are wingless females, the other three fully winged.

The Brazilian specimens are from the following localities: 2 ♀, Manaus, Amazonas, 8.IX.1962, K. Lenko col. (n.º KL 192); 1 ♀, Vitória, Espírito Santo, 18.IX.1960, O. Seifert col.; 2♀, Nova Teutônia, Santa Catarina, III, IX, 1940-41, F. Plaumann col.

***Scleroderma formicarius* Kieffer, 1921**

Kieffer provided only a very brief description of this minute species, which was taken from a nest of *Solenopsis* ants in the Province of Buenos Aires, Argentina.

Five wingless females taken by F. Vier at Petrópolis, Rio de Janeiro, Brazil, in IX.1967, I tentatively regard as belonging to this species. Although Kieffer's specimen was only 1.5 mm long, these specimens vary from 1.8 to 2.2 mm long. The head and thorax are clear, light yellow, as described by Kieffer, except that in four of the specimens the front of the head is somewhat infuscated. The antennae are infuscated apically in all five specimens, and the legs vary from testaceous to more or less fuscous. The abdomen is fusco-castaneous except that the first segment is somewhat paler than the remainder.

***Scleroderma iridomyrmicola* Bruch, 1917**

Bruch provided a long description and a series of figures of this species, which was taken from a nest of *Iridomyrmex* ants on Isla Martin Garcia, near Buenos Aires, Argentina. The type is said to be in the Museo de La Plata in that country.

***Scleroderma galapagense* Brues, 1919**

This species was based on six specimens taken from a nest of the ant *Prenolepsis fulva* on James Island (Isla San Salvador), Galapagos, Ecuador. The type and one paratype are in the California Academy of Sciences, San Francisco, California, the other four paratypes at the Museum of Comparative Zoology, Cambridge, Mass., U.S.A. Despite this record and the preceding two, there is no evidence that members of this genus are myrmecophiles

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