THE SPIDER GENUS DRYMUSA IN THE NEW WORLD
(ARANEAE: SCY TODIDAE)

C AR LOS E. VA L E R I O

Department of Zoology,
University of Florida, Gainesville, Fla. 32601

ABSTRACT

The 2 known species of this genus in the New World (Drymusa nubila Simon and D. simoni Bryant) are redescribed; D. nubila is illustrated for the first time, and the lectotype is designated. A new species (D. dinora) is described from the Pacific coast of Costa Rica, with notes on habitat and distribution. This is the first record for the genus in the continental Neotropics and on the Pacific side, since the known species are from the Caribbean Islands and South Africa.

FAMILY SCY TODIDAE BLACKWALL

Scytodidae Blackwall, 1864: 379.
Sicariidae Keyserling, 1880: 2.
Scytodidae Simon, 1890: 81.
Scytodidae: Gertsch, 1967: 130. The family is modified to include only three genera: Scytodes, Loxosceles and Drymusa.

Type genus: Scytodes Latreille (1804)

Family of Ecribellate spiders in the Haplogynae, separated from the related families by the following combination of characteristics: chelicerae joined at base; 6 eyes in 3 diads; bulb with a simple slender embolus; tracheal spiracle located on midventral line, near spinnerets; colulus conspicuous.

GENUS Drymusa SIMON


Type-species: D. nubila Simon

Diagnosis: Genital groove very long, with heavily sclerotized lips in adults of both sexes. Thoracic portion of carapace with a V shaped dark pattern, its apex on the thoracic groove and the arms extending forward.

Distinguished from Scytodes by the depressed carapace, a much wider clypeus (at least 2 ocular diameters in width), a shallow thoracic groove or pith (inconspicuous in D. nubila); short colulus (inconspicuous in males); chitinous depressions (if present) associated with lung slits (as opposed to behind the genital groove in Scytodes); the 8 bulbus located at the tip of the tarse.

More closely related to the genus Loxosceles, but separated by the presence of a third claw and the leg formula (i.e. the third being the longest, in Loxosceles the second or the forth is the longest).

KEY TO THE SPECIES OF Drymusa IN THE NEW WORLD

1. Metatarsus I with strong recurved setae (Fig. 1). Genital groove located within posterior half of ventral abdominal surface (Fig. 2).
Fig. 1-3—*Drynusae simoni* Bryant (♂): 1) metatarsus I, lateral view; 2) general aspect, lateral view; 3) chitinous lobe on ventral abdominal surface, lateral view.

Fig. 4—*Drynusae dinora* Valerio, n. sp. (♂): general aspect, lateral view.

Fig. 5-6—*Drynusae nubila* Simon (♀): 5) abdomen, ventral view; 6) general aspect, lateral view. (Scale line: 2.00 mm for Fig. 1, 3, 5-6; 7.50 mm for Fig. 2 and 4)

Chitinous lobe on midventral line of abdomen just anterior to tracheal slit (Fig. 3) ........................................................................................................ D. simoni Bryant

1. Metatarsus I lacking recurved setae. Genital groove located within anterior half of ventral abdominal surface. No chitinous lobe on ventral abdominal surface ........................................................................................................ 2

2. No external plates associated with genital groove, one chitinous depression (fovea) associated with each lung slit (Fig. 5). Abdomen ovoid and not pointed posteriorly. Genital groove located within anterior third of the distance between pedicel and spinnerets (Fig. 6) ....... ........................................ D. nubila Simon

2'. External chitinous plates associated with genital groove (Fig. 9), chitinous depressions absent. Abdomen highly gibbose and pointed behind tracheal slit (Fig. 8). Genital groove located near middle of the distance between pedicel and spinnerets ...... D. dinora Valerio, n. sp.
Drymusa is a small genus of spiders with 3 species known from South Africa and 2 from the Caribbean region. The discovery of a new species on the Pacific side of Costa Rica, seems significant in terms of the zoogeographic distribution of the group. The new species described in this paper, was found in a lowland rain forest, where both males and females spin loose webs on the underside of fallen logs; they can be easily missed by collectors since they remain on the log when it is turned over and are well camouflaged by their dark color. In addition they are not likely to be collected in litter samples. A similar explanation might account for the poor representation of the other species in collections.

I was able to study the syntype series of Drymusa nubila Simon, from the British Museum (Natural History), and the type material of D. simoni Bryant, from the Museum of Comparative Zoology, Harvard University (except for the subadult 9, which was not available).

I wish to thank the following for the loan of specimens: Dr. M. Vachon, Museum National d'Histoire Naturelle, Paris; Mr. D. J. Clark, British Museum (Natural History), London; and Dr. H. W. Levi, Museum of Comparative Zoology, Harvard University, Cambridge. Dr. J. Reiskind, Department of Zoology, University of Florida, Dr. H. W. Levi, and Dr. W. J. Gertsch gave valuable help and a critical review of the manuscript.

Drymusa nubila Simon
(Fig. 5-6)


The original description (not illustrated) was based on 4 females from Saint Vincent Island. The illustrations and measurements in the present paper are based on the lectotype designated by the author and returned to the British Museum (Natural History).

Diagnosis: Abdomen ovoid, lacking chitinous plates and lobes, but a conspicuous fovea associated with each lung slit. Genital groove placed on anterior third of ventral abdominal surface. Closely related to D. capensis Simon from South Africa.

Description: FEMALE (lectotype): Total length 4.5 mm. Carapace 1.7 mm long and 1.4 mm wide, pale in color with reddish brown patterns (color notes according to Simon, 1891; specimen now completely discolored), apparently very similar to those of D. dinora (Fig. 9). Clypeus 2 ocular diameters in width, each lateral diad separated by more than 2 ocular diameters from anterior one. Sternum as long as wide (0.9 mm), very dark in color. Pedipalpi 2.1 mm in length, tibiae and tarsi heavily sclerotized with strong setae on medial side. Legs relatively very long: 12.7 mm, 12.1 mm, 9.7 mm, and 11.7 mm respectively (first one being 7.5 times longer than carapace), lacking recurved setae.

Abdomen black, ovoid, lacking lobe on midventral line; genital groove with sclerotized lips but chitinous plates absent. Two chitinous foveae located laterally to genital groove, associated with lung slits (Fig. 5).

MALE: Unknown.

Distribution: Known only from the type material collected in Saint Vincent Island. An additional specimen in the MNHN, Paris, is also from this island.
Drymusa simoni BRYANT
(Fig. 1-3)

Drymusa simoni Bryant, 1948:363-365.
The original description was based on a male, and subadults of both sexes were also available. All material was collected in Haiti and deposited in the Museum of Comparative Zoology at Harvard University.

Diagnosis: Longitudinal chitinous lobe projecting from ventral surface of abdomen, just anterior to tracheal slit (Fig. 3). Metatarsi I with recurved setae (Fig. 1). Genital groove placed on posterior half of ventral abdominal surface.

Description: MALE (Holotype): Total length 5.2 mm. Carapace 2.5 mm long and 1.8 mm wide, pale brown with dark color patterns similar to those of D. dinora (Fig. 9). Clypeus nearly 3 ocular diameters in width. Sternum slightly longer than wide, dark brown in color; labium and endites dark brown in color. Pedipalp 1.6 mm in length; tibia with a ventral row of strong setae; bulb spherical, embolus nearly as long as the bulb, straight with tip abruptly curved. Legs relatively short and stout (Fig. 2): 12.1 mm, 10.6 mm, 8.1 mm and 10.1 mm in length respectively (First one being 4.8 times as long as the carapace), light brown in color; metatarsi I covered with strong recurved setae (a few on tibia I also) (Fig. 1).

Abdomen oval, very dark in color. Longitudinal chitinous lobe (0.3 mm long and 0.2 mm wide) projecting from ventral surface just anterior to tracheal slit, thickened at ventral edge; tuft of long setae located at base of chitinous lobe, between it and genital groove (Fig. 3). Genital groove displaced posteriorly, located within posterior half of abdominal length.

FEMALE: Unknown. Subadult with coloration similar to that of male and chitinous lobe on ventral abdominal surface present (Bryant, 1948).

Distribution: Known only from the type material, collected in Haiti.

Drymusa dinora VALERIO, NEW SPECIES
(Fig. 7-13)
The species is named for my wife, Dinora.

Type data: Female holotype, 1 ♂, 2 ♀, and 9 immature specimens col-
lected by the author on 20 July 1969, near Rincón, Osa, Puntarenas Province, Costa Rica (original number CEV-819), and all kept in the Museo de Zoología, Universidad de Costa Rica (number UCR-213-15-1), except for 1 ♀ donated to the American Museum of Natural History, New York.

**Diagnosis:** Abdomen pointed behind tracheal slit (Fig. 8). Female with 2 ventral abdominal chitinuous plates associated with genital groove (Fig. 9). Distinguished from *D. nubila* Simon by the presence of 2 ventral abdominal plates and the absence of lateral foveae in the epigynum.

Easily separated from *D. simoni* by the absence of the medial longitudinal lobe protecting tracheal slit (Fig. 3); the absence of recurved setae in metatarsi and tibiae (Fig. 1); the more slender and longer legs (Fig. 2 and 4), and details in the δ palpus (in *D. simoni* tip of embolus abruptly curved, as illustrated by Bryant, 1948).

**Descriptions:** FEMALE (Holotype): Total length 4.1 mm. Carapace 1.9 mm long and 1.5 mm wide, pale yellow with dark brown patterns as shown in Fig. 7; cephalic region covered by small geometrical figures, and thoracic portion dominated by 2 large oval dark areas extending backwards and converging at thoracic groove. Clypeus nearly 2 ocular diameters in width; each lateral diad separated by 1¼ ocular diameters from anterior one. Sternum wider than long (0.9 and 0.8 mm), dark brown in color; labium and endites of same color; chelicerae 1.0 mm in length, reddish brown, with 2 distinct denticles on promargin of fang furrow and a series of 4 smaller ones on retromargin (Fig. 10), striating ridges absent; pedipalpi 2.0 mm in length, pale yellow, robust; legs relatively very long (first one 6.4 times longer than carapace); coxae equal in length (0.4 mm), pale yellow with brown stripes; trochanters equal in length (0.2 mm); femora light yellow with a wide dark brown ring in the middle of its length and another one at apex; tibia light yellow with a dark ring near base; metatarsi and tarsi light brown (see Table I for measurements), lacking recurved setae.

Abdomen nearly black in color with white markings as shown in Fig. 7, very globose and extending forward over cephalothorax, its dorsal length nearly 0.3 mm greater than ventral length, and sharply pointed behind tracheal slit, with 5 deep wrinkles in dorsal surface, and spinnerets at apical end. Genital groove long with heavily sclerotized lips and 2 additional chitinuous plates; one located between lung areas, transverse in position and very large (0.5 mm long and 1.2 mm wide), showing inconspicuous notches probably associated with atrioabursal orifices; second plate between genital groove and tracheal slit, smaller (0.7 mm long and 0.5 mm wide), longitudinal and truncate at base (Fig. 9). Seminal receptacles apparently very small, widely separated from each other and lying on dorsal surface of anterior chitinuous plate.

MALE: Total length 3.8 mm. Carapace 1.8 mm long and 1.5 mm wide; same coloration as in female. Clypeus narrower than in female and lateral diads separated by only 1 ocular diameter from anterior one. Pedipalp stout (Fig. 11-13), 1.6 mm in length; femur subcylindrical like that of female; tibia slightly curved and incrassated near base on ventral side, nearly equal to femur in length; tarsus relatively long, expanded at base on dorsal and concave on ventral surface, with a row of heavy setae apically located on lateral side; bulb spherical, 0.18 mm in diameter, with
Fig. 8-13—*Drymus dinora* Valerio, n. sp. Fig. 8-10 9: 8) lateral view; 9) ventral view; 10) left chelicera, ventral view. Fig. 11-13 δ right pedipalp: 11) lateral view; 12) medial view; 13) frontal view. (Scale line: 2.00 mm for Fig. 8-9; 0.86 mm for Fig. 10-13)
Valerio: The Spider Genus Drymusa

TABLE 1. LENGTH IN MM OF THE LEG SEGMENTS IN THE ♂ HOLOTYPE, Drymusa dinora n. sp. (TOTAL BODY LENGTH: 4.1 MM; CARAPACE 1.9 MM LONG AND 1.6 MM WIDE)

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<tr>
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<th>Palpus</th>
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<th>II</th>
<th>III</th>
<th>IV</th>
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<tr>
<td>femur</td>
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<td>2.2</td>
<td>3.0</td>
<td>2.4</td>
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<tr>
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<td>0.5</td>
<td>0.5</td>
<td>0.4</td>
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<tr>
<td>tibia</td>
<td>0.5</td>
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<td>3.1</td>
<td>2.4</td>
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<tr>
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<td>—</td>
<td>3.8</td>
<td>3.3</td>
<td>2.7</td>
<td>3.2</td>
</tr>
<tr>
<td>tarsus</td>
<td>0.5</td>
<td>1.1</td>
<td>1.1</td>
<td>0.9</td>
<td>1.1</td>
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<tr>
<td>Total</td>
<td>2.0</td>
<td>12.2</td>
<td>11.0</td>
<td>8.8</td>
<td>10.8</td>
</tr>
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a thin laterally flattened embolus, 0.29 mm long and curved medially. Legs longer and more slender than those of female: 14.1 mm, 12.8 mm, 9.9 mm and 12.8 mm (first one being 7.8 times longer than carapace). Abdomen similar in shape and coloration to that of female, lacking chitinous plates on ventral surface.

Distribution: It is likely that this species is limited to the floor of the lowland rain forests around the Golfo Dulce, since this region is ecologically isolated. North and southeast of it, the rain forest is interrupted by dry formations and cultivated areas, and the east side is bordered by the high Talamanca mountains. Besides, it was not reported in an extensive survey in the ground fauna of a similar forest in Panamá (Williams, 1941).

Remarks: At first, the dorsal wrinkles in the pointed portion of the abdomen (Fig. 8) were thought to be traces of embryonic segmentation, but their absence in the immature specimens shows they are a secondary characteristic.

D. dinora resembles D. silvicola Purcell, from South Africa, in the presence of a chitinous plate located posterior to the genital groove. There is also a remarkable similarity, in the shape of the abdomen, between D. dinora and Scytodes coronata Thorot (Millot, 1947) from tropical Africa.

LITERATURE CITED


The Florida Entomologist 54(2) 1971