# SOME SPIDERS AND OTHER ARACHNIDA FROM PORTO RICO.

By Nathan Banks,
*Custodian of Arachnida.*

This paper is based principally on material collected in Porto Rico by Mr. August Busck, who visited that island in the early part of 1899. Since then some specimens have been received from several collectors whose names will be found in connection with the species they collected. All uncredited records are those of Mr. Busck.

This list shows a total of forty-nine spiders and five other arachnids. Although there are less than fifty spiders they are disposed in fifteen families. The Epeiridæ stands first with sixteen species; no other family having more than four species, and four families are represented by but one species each. There are but few small forms in the collection, although these are doubtless fairly common on the island. Two spiders and the phalangids are described as new, a few other species are probably new, but more material is necessary for determination.

Most of the species are quite widely distributed in the West Indies and the northern border of South America. A few species are known only from Porto Rico, but with larger collections from the other islands these forms will be found to occur elsewhere. Twenty of the spiders are known to occur in the United States, mostly in the extreme southern portions. This collection would indicate that the Porto Rican fauna is more intimately related to that of northern South America than to the fauna of the United States.

The material forms part of the collection of Arachnida of the United States National Museum.

## Order ARANEIDA.

### Family THERAPHOSIDÆ.

#### AVICULARIA LÆTA Koch.

*Mygale læta* Koch, Die Arach., IX, 1842, p. 66.

Two specimens; one from Culebra Island, February 11, the other from Utado, January 27. Koch's figure is not good, but the scopulas, when dry, are plainly greenish; venter is black. A true *Avicularia*. It was described by Koch from Porto Rico.

### SCHIZOPELMA ERICHSONII Koch.

*Mygale erichsonii* Koch, Die Arach., IX, 1842, p. 28.

Various specimens: Lares, January 25; Anasas, January 20; Culebra Island, February 8; San Juan, January 1–10; also Hacienda Esparanza, June 6, from E. A. Wagener, and Isolina, April. Koch's figure, as usual, is too highly colored, but the specimens agree well with his description; the legs are lineate as he figures them. The type was from Santo Domingo.

### ISCHNOCOLUS Species.

One female and several young from El Yunque, 2,800 feet, February (Richmond). It has black mandibles; all scopulas are divided, the hind ones broadly; tibiæ and metatarsi III and IV, with spines in rows beneath; sternum flat, nearly circular; anterior eye-row straight.

## Family FILISTATIDÆ.

### FILISTATA CAPITATA Hentz.

*Filistata capitata* Hentz, Jour. Bost. Soc. Nat. Hist., IV, 1842, p. 228.
*Teratodes depressus* Koch, Die Arach., IX, 1842, p. 103.
*Filistata cubæcola* Lucas, Sagra's Hist. d. Cuba, Ar., 1853, p. 74.

One specimen from San Juan, January 1–10.

## Family SCYTODIDÆ.

### SCYTODES LONGIPES Lucas.

*Scytodes longipes* Lucas, Ann. Soc. Ent. France, 1845, p. 71.
*Scytodes marmorata* Taczanowski, Hor. Soc. Ent. Ross, 1873, p. 107.
*Scytodes taczanowskii* Thorell, Ragni. Mal., IV, 1890, p. 301.

Two specimens; one from Lares, January 25, the other from Luquillo, March 4 (Richmond).

### SCYTODES FUSCA Walckenaer.

*Scytodes fusca* Walckenaer, Aptères, I, 1837, p. 272.
*Scytodes guyanensis* Taczanowski, Hor. Soc. Ent. Ross, 1873, p. 108.

Several specimens from a cave near Pueblo Viejo, February 17 (Stejneger and Richmond).

## Family CLUBIONIDÆ.

### AYSHA TENUIS Koch.

*Anyphæna tenuis* Koch, Arach. Fam. Drass., 1867, p. 211.

Several specimens from Culebra Island, February, and San Juan, January 1–10. Described from Santo Domingo, but now known to occur on several of the West India islands.

### CHIRACANTHIUM INCLUSUM Hentz.

*Clubiona inclusa* Hentz, Journ. Bost. Soc. N. H., V, 1847, p. 451.
*Chiracanthium viride* Emerton, Trans. Conn. Acad., VIII, 1890, p. 20.

One pair from Aguadilla, January. Widely distributed throughout temperate and subtropical America.

### HYPSINOTUS HUMILIS Keyserling.

*Hypsinotus humilis* Keyserling, Verh. zool.-bot. Ges. Wien, 1884, p. 446.

One specimen from Luquillo, March 4 (Richmond). Another from Hacienda Esparanza, June 6 (Wagener). Described from St. Kitts.

## Family ULOBORIDÆ.

### ULOBORUS GENICULATUS Olivier.

*Araneus geniculatus* Olivier, Encyl. Meth., II, 1789, p. 214.
*Uloborus zosis* Walckenaer, Aptères, II, 1842, p. 231.

One specimen from Lares, January 25. A well-known cosmotropical spider.

## Family PHOLCIDÆ.

### ARTEMA ATLANTA Walckenaer.

*Artema atlanta* Walckenaer, Aptères, I, 1837, p. 656.
*Pholcus convexus* Blackwell, Ann. Mag. Nat. Hist., (2), III, 1858, p. 332.

Two specimens from Utado, January. Distributed throughout the tropical regions of America.

## Family THERIDIIDÆ.

### LATHRODECTES MACTANS Fabricius.

*Aranea mactans* Fabricius, Entom. Syst., II, 1775, p. 410.
*Theridium formidabilis* Walckenaer, Aptères, I, 1837, p. 647.
*Lathrodectus dotatus* Koch, Die Arach., VIII, 1841, p. 115.
*Theridium verecundum* Hentz, Jour. Bost. Soc. N. H., VI, 1850, p. 280.

Several specimens from Mayaguez, January. Common in the tropical and subtropical parts of America.

### THERIDIUM VOLATILE Keyserling. (?)

*Theridium volatile* Keyserling, Die Spinn. Amer., Therid., I, 1884, p. 60.

One immature specimen from Culebra Island, February, apparently belonging to this species. It was described from Venezuela, but also occurs in Florida.

## Family TETRAGNATHIDÆ.

### TETRAGNATHA LABORIOSA Hentz.

*Tetragnatha laboriosa* Hentz, Jour. Bost. Soc. N. H., VI, 1850, p. 27.

One male from Utado, January, is rather smaller than usual, but does not appear to differ from Florida specimens.

### TETRAGNATHA ANTILLIANA Simon.

*Tetragnatha antilliana* Simon, Proc. Zool. Soc. London, 1897, p. 868.

One female from Lares, January 25. Readily known by the large tooth on apex of mandible below. It appears to be very close to *T. protensa* Keyserling, from Mauritius. It was described from St. Vincent.

### TETRAGNATHA VICINA Simon.

*Tetragnatha vicina* Simon, Proc. Zool. Soc. London, 1897, p. 869.

One pair from San Juan, January 1–10. The female is much like that of *T. antilliana*, but the lower apical tooth is much smaller. Described from St. Vincent.

### EUGNATHA GRACILIS Cambridge.

*Eugnatha gracilis* Cambridge, Biol. Cent.-Amer., Arach.-Aran., I, 1889, p. 11.

One male and two young from Bayamon, January. The tibial joint of the male palpus is longer than in *E. pallida*.

## Family EPEIRIDÆ.

### ARGYROEPEIRA ARGYRA Walckenaer.

*Tetragnatha argyra* Walckenaer, Aptères, II, 1842, p. 219.
*Linyphia ornata* Taczanowski, Hor. Soc. Ent. Ross., 1873, p. 11.

Many specimens: Lares, January 25; Aguadilla, January; Vieques Island, February 11; Arroyo, February; and small specimens from El Yungue, March (Richmond). Common in tropical America.

### ARGYROEPEIRA BIGIBBOSA Keyserling.

*Meta bigibbosa* Keyserling, Sitzungsber. d. Isis, Dresden, 1863, p. 144.

Several from Aguadilla, January, and El Yungue, March, 2,800 feet (Richmond). Known from northern South America.

### ALCIMOSPHENUS LICINUS Simon.

*Alcimosphenus licinus* Simon, Hist. Nat. Ar., 2d ed., I, 1896, p. 931.

Two specimens from Adjuntas, April 13 (Richmond). It is strange that such a handsome species was not previously described. It occurs throughout the West Indian region. The markings vary in extent, and sometimes some are wanting.

### ARGIOPE ARGENTATA Fabricius.

*Aranea argentata* Fabricius, Entom. Syst., II, 1775, p. 414.
*Argiope fenestrinus* Koch, Die Arach., V, 1839, p. 155.

Several specimens: Culebra Island, February; Aguadilla, January; San Juan, January 1–10, and Utado, April 7 (Richmond). A large and well-known cosmotropical spider.

### ARGIOPE FASTUOSA Olivier.

*Araneus fastuosus* Olivier, Encycl. Meth., II, 1789, p. 202.
*Epeira fasciata* Hentz, Jour. Bost. Soc. N. H., V, 1847, p. 468.
*Argiope transversa* Emerton, Trans. Conn. Acad., VI, 1884, p. 330.

Two females from San Juan, January 1–10. Common in the United States and Mexico.

### NEPHILA WILDERI McCook.

*Nephila wilderi* McCook, Amer. Spid., III, 1893, p. 251.
*Nephila plumipes* Koch, Die Arach., VI, 1839, p. 138 (not of Latreille).

Two specimens from Aguadilla, January.

### EPEIRA LABYRINTHEA Hentz.

*Epeira labyrinthea* Hentz, Jour. Bost. Soc. N. H., V, 1847, p. 471.
*Epeira rectangula* Nicolet, Gay's Hist. d. Chile, Zool., III, 1849, p. 500.

Several specimens: Culebra Island, February; Aguadilla, January, and Viegues Island, March 27 (Richmond).

### EPEIRA THEISII Walckenaer.

*Epeira theisii* Walckenaer, Aptères, II, 1842, p. 53.
*Epeira mangarera* Walckenaer, Aptères, IV, 1847, p. 469.

Many specimens: Culebra Island, January; Aguadilla, January; Bayamon, January; Mayaguez, January, and El Yungue, February 19. This is smaller and more slender than *E. oaxensis* Keyserling, and I think different, although small specimens of the latter look much like large specimens of the former. Widely distributed throughout the Tropics.

### EPEIRA BALAUSTINA McCook.

*Epeira balaustina* McCook, Proc. Acad. Nat. Sci. Phila., 1880, p. 198.
*Epeira purpurascens* Cambridge, Biol. Cent.-Amer., Arach.-Aran., I, 1889, p. 33.

One female from San Juan, January 1–10. Known from Florida and Mexico.

### EPEIRA FUSCO-VITTATA Keyserling.

*Epeira fusco-vittata* Keyserling, Sitzungsber. d. Isis, Dresden, 1863, p. 129.
*Cyclosa thorelli* McCook, Amer. Spid., III, 1893, p. 228.

A male from San Juan, January 1–10; a female from Utado, January. Distributed throughout the West Indian region.

EPEIRA GRANADENSIS Keyserling.

*Epeira granadensis* KEYSERLING, Sitzungsber. d. Isis, Dresden, 1863, p. 86.

Several specimens from Luquillo, March 4 (Richmond). This species is close to *E. tricittata*. Described from Colombia.

EUSTALA PROMPTA Hentz.

*Epeira prompta* HENTZ, Jour. Bost. Soc. N. H., V, 1847, p. 472.
*Epeira parrula* KEYSERLING, Sitzungsber. d. Isis, Dresden, 1863, p. 131.

One from El Yunque, 2,800 feet, February (Richmond). Distributed throughout the United States, Mexico, and West Indies.

EUSTALA CONCHLEA McCook.

*Epeira conchlea* McCOOK, Proc. Acad. Nat. Sci., Phila., 1888, p. 199.
*Epeira clavispina* CAMBRIDGE, Biol. Cent.-Amer., Arach. Aran., I, 1889, p. 37.

One specimen from Utado, January. Probably only a variety of the preceding, and found in the southern United States and Mexico.

GASTERACANTHA HILARIS Thorell.

*Gasteracantha hilaris* THORELL, Öfvers. k. Vet-Akad. Förh., 1859, p. 302.
*Gasteracantha canestrinii* CAMBRIDGE, Proc. Zool. Soc. Lond., 1879, p. 282.

Several specimens from Aquadilla, January; and from Adjuntas, April (Richmond). Thorell's type came from the island of St. Bartholomew; Cambridge's was from Antigua. I also have it from Haiti.

GASTERACANTHA SEXSERRATA Walckenaer.

*Plectana sexserrata* WALCKENAER, Aptères, II, 1842,[1] p. 157.

Several specimens from Bayamon, January. Known from northern South America.

GASTERACANTHA TETRACANTHA Linnæus.

*Aranea tetracantha* LINNÆUS, Syst. Nat. II, 1740, p. 1037.
*Plectana linnæi* WALCKENAER, Aptères, II, 1842, p. 163.
*Gasteracantha quadridens* KOCH, Die Arach. XI, 1845, p. 59.

One specimen from Culebra Island, February. Known from the West Indian region.

## Family THOMISIDÆ.

MISUMENA ASPERATUS Hentz.

*Thomisus asperatus* HENTZ, Jour. Bost. Soc. N. H., V, 1847, p. 447.
*Misumena rosea* KEYSERLING, Die Spinn. Amer., Laterigr., 1880, p. 82.
*Misumena foliata* BANKS, Proc. Acad. Nat. Sci., Phila., 1892, p. 57.

Several specimens from El Yunque, and from Bayamon, January. Distributed throughout the United States, Mexico, and West Indies.

[1] The oft-quoted date, "1837," for the second volume of this work is evidently wrong, as references in it to later dates are not uncommon, even 1841.

MISUMENA Species.

Two specimens, females, from San Juan, January, and Aguadilla, January. They are quite robust, pale, and with a white line through eye region.

## Family SPARASSIDÆ.

SELENOPS INSULARIS Keyserling.

*Selenops insularis* Keyserling, Verh. zool.-bot. Ges., Wien, 1880, p. 311.

Three specimens from San Juan, January 1–10. Described from Porto Rico.

HETEROPODA VENATORIA Linnæus.

*Aranea venatoria* Linnæus, Syst. Nat., 10th ed., 1758, p. 1037.
*Olios antillianus* Walckenaer, Aptères, I, 1837, p. 568.

Several specimens from San Juan, January 1–10. A wide-spread tropical species.

OLIOS ANTIGUENSIS Keyserling.

*Sparassus antiguensis* Keyserling, Die Spinn. Amer., Laterg., 1880, p. 264.

Several specimens from Utado, January, and from Culebra Island, February 9, the latter with egg sacs. Described from Antigua.

## Family CTENIDÆ.

MICROCTENUS Species.

One female from a cave near Pueblo Viejo, February 17 (Richmond and Stejneger). It appears to be new; there is a broad, pale stripe on the cephalothorax, the abdomen dull gray, unmarked, mandibles black, the quadrangle of M. E. is as broad as high, narrow in front, A. M. E. small; second eye row nearly straight; legs rather long, IV longest, but patella plus tibia I is a trifle longer than patella plus tibia IV, the metatarsi and tarsi I being short; four pairs of spines under tibia I. The species of this genus and allied forms are very much mixed up.

## Family LYCOSIDÆ.

LYCOSA AUSSERERI Keyserling.

*Tarantula ausserei* Keyserling, Verh. zool.-bot. Ges., Wien, 1876, p. 657.

Three examples: One Vieques Island, February; one Culebra Island, February 11, and one from Vieques Island, March 18 (Stejneger). Described from Santa Fé de Bogota. It is very close to our *L. erratica* Htz., but has a pale venter.

LYCOSA FUSCA Keyserling.

*Tarantula fusca* Keyserling, Verh. zool.-bot. Ges., Wein, 1876, p. 640.

Two specimens from San Juan, January 1–10, appear to belong to this species, which was described from Cuba. It is very close to, and perhaps identical with, *Lycosa atlantica* Marx, from the Bermudas.

PARDOSA PORTO-RICENSIS, new species.

Cephalothorax yellowish; eye region black, a broad, brown stripe each side reaching from side eyes to hind margin, the side margins narrowly black; mandibles yellowish, darker on the tips; sternum pale yellowish; legs pale, barred and ringed with brown; the marks on femora rarely show on the under side. Abdomen blackish above, with a broad, whitish median stripe reaching from base to tip, tapering somewhat from the basal third; venter pale yellowish. Cephalothorax not very long, quite broad, first eye row shorter than second, nearly straight, the eyes subequal; eyes of second row about one and one-half their diameter apart; mandibles long; legs quite long, three pairs of spines under tibia I, two pairs under metatarsi I. Length, 5 mm. One specimen from San Juan, January 1–10.

DOLOMEDES MARGINELLUS Koch.

*Dolomedes marginellus* Koch, Die Arachn., XIV, 1848, p. 120.

One female from Vieques Island, March 25. Known from the coasts of tropical America.

## Family OXYOPIDÆ.

OXYOPES SALTICUS Hentz.

*Oxyopes salticus* Hentz, Jour. Bost. Soc. N. H., V, 1845, p. 196.
*Oxyopes gracilis* Keyserling, Verh. zool.-bot. Ges. Wien., 1876, p. 698.

Several specimens from El Yunque and Culebra Island, February. Widely distributed throughout both North and South America.

OXYOPES Species.

A few specimens of uncertain position from Culebra Island, February.

## Family ATTIDÆ.

PLEXIPPUS PAYKULLI Audouin et Savigny.

*Attus paykulli* Audouin et Savigny, Descr. de l'Egypte, XXII, 1827, p. 172.
*Attus ligo* Walckenaer, Aptères, I, 1837, p. 426.

Many specimens: Lares, January 25; Adjuntas, February 14 (Richmond); San Juan, March 31 (Richmond), and Arecibo, April 3 (Richmond). A well-known cosmotropical spider.

WALA VERNALIS Peckham.

*Anoka vernalis* Peckham, Proc. Zool. Soc. London, 1893, p. 701.

Several specimens from San Juan, January 1–10; Vieques Island, February, and Aguadilla, January. Described from Jamaica. The genus *Anoka* Peckham is synonymous with *Wala* Keyserling, since Keyserling's type appears to be our common *A. palmarum* Hentz.

### PROSTHECLINA ILLUSTRIS Koch. (?)

*Eris illustris* Koch, Die Arachn., XIII, 1846, p. 192.

One male from El Yunque, 2,800 feet, February 24 (Richmond), appears to be this species which Koch described from Porto Rico.

### PROSTHECLINA SIGNATA, new species.

*Male:* Cephalothorax red-brown, eye region black, both with some iridescent scales, a row of green ones above the anterior eyes; mandibles dark brown; palpi light brown, the patella clothed above with shining snow-white hairs; legs yellowish brown, their anterior sides blackish, unbanded, tarsi nearly white; coxæ and sternum pale yellowish. Abdomen above dark brown; on each anterior side is an oblong patch of iridescent scales, and behind, on each posterior side, is a circle of iridescent scales, inclosing a jet-black spot; a black spot in front of the circle; venter black.

*Female:* Cephalothorax pale yellow-brown; eye region black, deeply emarginate behind, and there containing a large black spot which, tapering behind, is continued as a narrow median stripe to the posterior margin, the hairs each side of this are glistening white; from each dorsal eye there extends backward a broad dark-brown stripe; a point of white hair between the anterior eyes above; mandibles brown; palpi pale, annulate; legs pale, marked and annulate with black, not very plainly on the anterior pairs; sternum and coxæ pale yellowish. Abdomen brown, with a glistening white line around the base; from it, each side, is a submedian white line reaching toward the middle of dorsum; behind this on each side is a white circle inclosing a black patch; the circle is often extended backward to the spinnerets; in front of the circle is another black patch; venter pale, with a median brown stripe, and darker marks on the sides.

Length, male 3.0 mm., female 3.5 mm.

Several specimens from Utuado, January; Aguadilla, January; and Culebra Island, February.

## Order SCORPIONIDA.

### CENTRURUS INSULANUS Thorell.

*Centrurus insularus* Thorell, Atti. Soc. Ital., XIX, 1877, p. 148.

Two specimens: Culebra Island, February 11, and Vieques Island, February. Known from several West Indian islands.

### ISOMETRUS MACULATUS De Geer.

*Scorpio maculatus* De Geer, Mém. Hist. Ins., VII, 1778, p. 346.
*Scorpio americanus* Herbst, Natursyst. ungefl. Ins. IV, 1800, p. 60.
*Isometrus filum* Hemprich and Ehrenberg, Sym. phys., Scorp., 1828, p. 3.
*Lychas paraensis* Koch, Die Arach., XII, 1845, p. 6.

One specimen from San Juan, February 13 (Stejneger). A common cosmotropical species.

## Order PHRYNIDA.

### PHRYNUS PALMATUS Herbst.

*Phalangium palmatum* HERBST, Natursyst. ungefl. Ins., I, 1800, p. 82.

Two specimens: Lares, January 25; Hacienda Esperanza, June 6 (Wagener). They will not agree with any of Pocock's numerous species based on forms of this variable Phrynid, and so might be classed as a new form.

## Order PHALANGIDA.

### CYNORTA OBSCURA, new species.

Dorsum brown, with yellowish marks; a spot at each posterior side of the cephalothorax usually connected by a curved transverse line; four transverse lines on the abdomen, the anterior two ending in a larger spot each side; some of these lines, usually the hind ones, are connected in the middle; legs and palpi pale, more or less netted with black; venter dark red-brown. Palpus of usual shape, legs not very long, with few granulations; hind coxæ with some short, but prominent blunt tubercles on outer side at base; eye tubercle very low. Abdomen with two submedian rows of four tubercles each; the basal four are very small and rounded, the next pair longer, prominent, and acute; the last pair somewhat smaller. In the male the legs are rather more granulate, the basal four tubercles are acute, and the mandibles are greatly enlarged above and gibbous, marked with netted and wavy dark lines.

Length, 5 mm.

Several specimens from Bayamon, January, and one from Ponce, April 16 (Richmond).

### STYGNUS INSULANUS, new species.

Dark reddish brown, the hind margins of the median abdominal segments margined with pale; mandibles and palpi rather dirty yellowish; the tarsi pale, especially the hind pair. Eyes widely separated, between them a large spine that is bifid at tip; basal shield of abdomen smooth, with two submedian rows of four small tubercles each, each lateral margin with a row of rounded granules close by; behind the submedian tubercles are three median spines, the basal one smaller than the other two, which are nearly subequal; posterior segments with a few short spines. Mandibles large, second and third joints swollen above. Coxa of palpus with a spine beneath, femur with four spines below, patella unarmed, tibia swollen at tip and with two projections on inner margin. Legs short and slender, the fourth pair much the longest; femora II and III with a row of small spines

beneath; trochanter IV with one spine above, femur IV with a row of five large spines below and one at tip above; several near tip of the patella; a few small ones on tibia; tarsi of fore legs four-jointed, hind tarsi six-jointed, the basal joint longer than the others.

Length of body, 5.5 mm.

One specimen from El Yunque, 2,800 feet, February (Richmond).

This species is evidently related to *Styphelus flavitarsis* Simon, from Guadeloupe, but it has not the tarsal arrangement of that genus, so I retain it in the genus *Stygnus*. The tarsal characters, in my opinion, are scarcely of generic value. In Simon's species the ocular spine is not bifid at tip, and there are only two large median spines behind.

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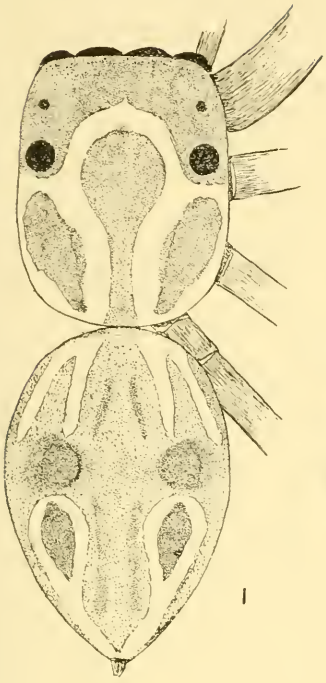
## EXPLANATION OF PLATE XV.

Fig. 1. *Prostheclina signata*, spider.
2. *Pardosa porto-ricensis*, spider.
3. *Pardosa porto-ricensis*, epigynum.
4. *Prostheclina signata*, epigynum.
5. *Cynorta obscura*, side view.
6. *Prostheclina signata*, palpus.
7. *Stygnus insulanus*, side view.



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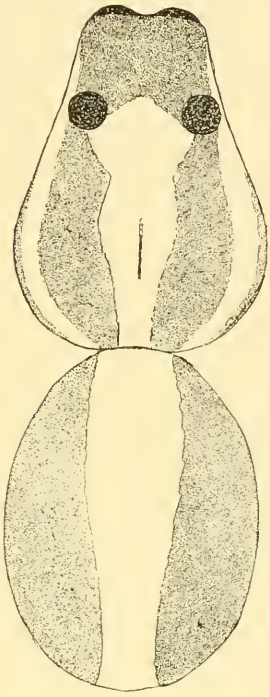

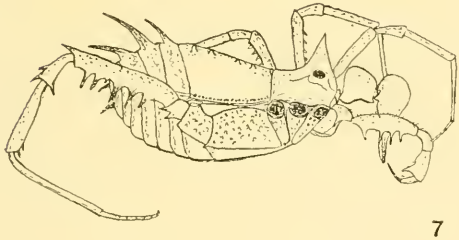

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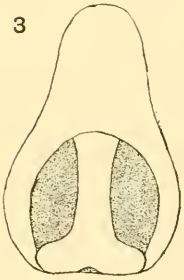

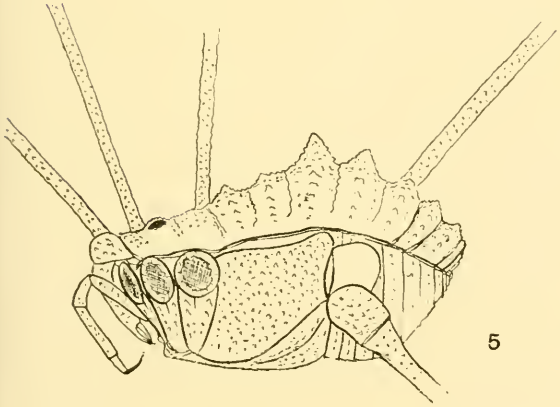

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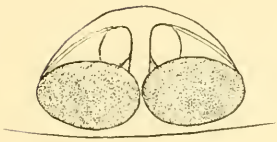

SOME ARACHNIDA FROM PORTO RICO.

FOR EXPLANATION OF PLATE SEE PAGE 227.