BIOLOGIA CENTRALI-AMERICANA; CHILOPODA AND DIPLOPODA

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649147885

Biologia Centrali-Americana; Chilopoda and Diplopoda by Reginald Innes Pocock

Edited by Trieste Publishing Pty Ltd.
Cover @ 2017

www.triestepublishing.com

REGINALD INNES POCOCK

BIOLOGIA CENTRALI-AMERICANA; CHILOPODA AND DIPLOPODA

Trieste

BIOLOGIA
CENTRALI-AMERICANA.

CHILOPODA AND DIPLOPODA.

BY

REGINALD INNES POCOCK, F.Z.S.

1910.

BIOLOGIA CENTRALI-AMERICANA.

ZOOLOGIA.

Class CHILOPODA, Latr.

Subclass ANARTIOSTIGMA*.

[Silvestri, Ann. Mus. Genova, xxxiv. p. 622 (1895) = *Schizotarsia*, Brandt.]

Order SCUTIGEROMORPHA, nov.

Fam. SCUTIGERIDÆ, Gerv.

SCUTIGERA.

Scutigera, Lamarck, Syst. des Animaux sans Vertèbres, p. 182 (1801).

1. Scutigera linceci. (Tab. I. figg. 1, 1 *a*, *b*.)

Cermatia linceci, Wood, Proc. Ac. Phil. 1867, p. 42 [1].

Scutigera mexicana, Sauss. & Humb. Miss. Sci. Mex., Myriop. pp. 112, 113, t. 5. fig. 3 (1872) [2].

Scutigera occidentalis, Meinert, Vid. Medd. Nat. Foren. 1886, pp. 105, 106 [3].

In this species the colours are somewhat variable. When the tints are well defined, the tergites are adorned laterally with a wide, deep green band, and with a much narrower band of the same tint in the dorsal middle line; this median band is not complete behind, just falling short of the stomata; the stoma-saddles are flavous or pale olivaceo-flavous, the colour being continuous with a wide band on each side of the middle line, separating the median from the lateral green band. The legs have their femora, patellæ, and tibiæ more or less distinctly ringed with deep green. Tarsi and antennæ ferruginous.

In some specimens the legs are nearly concolorous, of a deep green, and the bands of the dorsal surface become more or less fused.

Head very flat between the eyes; the posterior portion swollen laterally, flat in the middle, the median flat area being continuous with that between the eyes.

Tergites closely spicular, and very evenly convex, being hardly noticeably undulated at the sides; the stoma-saddles are ill-defined, and the stomata are inclined and short; the hinder borders of the tergites mesially emarginate.

---

* Written *Anartiostigmata* by Silvestri; but this form of the neuter plural is, I believe, etymologically incorrect. Compare *Echinoderma*, sometimes written *Echinodermata*.

Sterna mesially sulcate and, at least in the posterior half of the body, with the hind borders mesially emarginate.
Length up to about 19 millim.

Hab. North America, Texas[1].—Mexico, Chilpancingo 4600 feet, Omilteme 8000 feet, and Amula 6000 to 7000 feet, all in Guerrero (*H. H. Smith*), Oaxaca[2]; Guatemala, Volcan de Pacaya (*Stoll*); Nicaragua, Granada[3].

This species differs from the common North-American *Scutigera forceps* (Raf.), which is very closely allied to, even if not identical with, the common S.-European *S. coleoptrata*, in being of smaller size, in having its tergites more closely spicular and the head less flat; moreover, the median band of colour on the tergites of *S. forceps* extends over the stoma-saddles on each side of the stomata, instead of falling short of them as in *S. linceci*.

According to Mr. H. H. Smith these centipedes are found under logs and stones in damp places. They are exceedingly fragile, the legs breaking off at the least touch, so that it is almost impossible to secure perfect specimens.

2. **Scutigera nigro-vittata.** (Tab. I. figg. 2, 2 *a*.)

Scutigera nigro-vittata, Meinert, Proc. Am. Phil. Soc. 1886, p. 173[1].

Colour: upper surface black or very deep brown, with a wide, median, dorsal, flavous band extending from the anterior extremity of the labrum to the posterior extremity of the terminal tergite; this band crosses the middle of each half of the stoma-saddles and is uninterrupted except for a black patch on each stoma; the lateral portions of the head and the tergites just above the side-margins furnished with a fine irregular flavous band; sternal surface fulvous. The legs nigro-annulate, the femur adorned beneath with two rings—a proximal smaller, which is very incomplete above, and a distal larger, which is almost complete above; the patella with two wide rings and a fuscous distal extremity; tibiæ indistinctly biannulate; tarsi fulvous, concolorous.
Head with labral area sparsely hairy; region above it in front of the eyes deeply sulcate longitudinally, and furnished on each side of the sulcus with two longitudinal, subparallel, apically curved ridges, which posteriorly diverge and meet the inner angle of the eye; area between the eyes deeply scooped transversely; margin of the head raised and smooth.
Tergites smooth in the middle line, sparsely spicular elsewhere; the borders raised, spicular, the posterior border mesially emarginate; the stoma-saddles sparsely spicular, ill-defined, but much wider than long; posterior tergite with its hinder border not excised.
Sterna hairy, mesially sulcate.
Legs carinate and serrate.
Length 22 millim.

Hab. Panama[1].—Venezuela, Caracas.

This species was described by Meinert from Panama. The accompanying figure and description have been taken from an example sent to the British Museum by Dr. Ernst. This specimen was from Caracas, but Meinert's description applies so closely to it that in all probability it was taken from an example of the same species.

S. nigro-vittata may be at once separated from *S. linceci* by the marked difference in colour. Apart from this, however, the head and tergites are very differently

sculptured, the tergites being distinctly undulated laterally, and the interocular area of the head strongly scooped out transversely. In colouring it calls to mind *S. rugosa* of Newport, from East Africa, which has the same complete median dorsal flavous band, the same wide black band on each side of it, and the same strongly annulate legs. But the stomata in *S. rugosa* are not fuscous, and the tibiæ are more strongly annulate.

Subclass ARTIOSTIGMA*.

[Silvestri, Ann. Mus. Genova, xxxiv. p. 623 (1895).]

Order LITHOBIOMORPHA, nov.

[=*Unguipalpi*, Bollman, 1893; *Artiostigmata*, Silvestri, 1895.]

Containing the *Lithobiidæ* and *Cermatobiidæ*.

Fam. LITHOBIIDÆ, Newp.

LITHOBIUS.

Lithobius, Leach, Trans. Linn. Soc. xi. p. 381 (1814).

The following is a key to the identification of the species of *Lithobius* known to me:—

a. The posterior angles of the ninth, eleventh, and thirteenth terga squared (about 30 ocelli and 30 antennal segments) . . . . . *stolli*, sp. n.
b. The posterior angles of the ninth, eleventh, and thirteenth terga produced.
  a^1. Ocelli about 30 in number on each side (also about 30 antennal segments); claw of generative forceps of female trifid . . . . . *aztecus*, H. & S.
  b^1. Ocelli about 9 or 10 on each side; claw of female generative forceps simple.
    a^2. Of very large size, over 30 millim., with about 60 antennal segments and 10 to 12 coxal teeth . . . . . *macroceros*, sp. n.
    b^2. Under 30 millim., fewer than 60 antennal segments, and (except in *L. decodontus*) with only 6 coxal teeth.
      a^3. Coxal teeth about 10, all alike, and normally formed . . . . . *decodontus*, sp. n.
      b^3. Coxal teeth only 6, the external on each side spiniliform; anal legs of the male modified.
        a^4. Male with legs of the fourteenth pair unmodified; the first tarsal of the anal legs modified.

* I here use this term in a much wider sense than that proposed by Silvestri, to embrace all the Chilopoda that were called Holotarsia by Brandt.

a^3. About 27 millim.; external coxal tooth on each side larger than the internal (for sexual character, see Tab. I. fig. 4*d*) . *pontifex*, sp. n.

b^3. About 18 millim.; external tooth on each side smaller than the others (for sexual character, see Tab. I. fig. 5*c*) . . . *humberti*, sp. n.

b^4. Male with legs of the fourteenth and fifteenth pairs modified; the first tarsal of the anal leg unmodified.

a^5. Antennal segments about 40; angles of the seventh tergum not produced, with an elongate crest on the patella of the anal leg . . . . . *vulcani*, sp. n.

b^5. Antennal segments about 50; angles of the seventh tergum produced, with a rounded prominence on the patella of the anal leg.

a^7. Tibia of the fourteenth pair in male much thicker than the patella, deeply grooved, and hairy above . . . . . *godmani*, sp. n.

b^7. Tibia of the fourteenth leg in male only a little wider than the patella . . . . . *salvini*, sp. n.

1. **Lithobius macroceros**, sp. n. (Tab. I. figg. 3, 3 *a–d*.)

Colour of upper surface ochraceous or castaneous, anteriorly and posteriorly darker than mesially, the head castaneous; under surface and legs pale ochraceous or pale castaneous; antennæ darker in tint than the legs.

Body long, narrow, and nearly parallel-sided, shining.

Head a little wider than long, minutely and closely punctured, shining and smooth, lightly convex, with raised lateral and posterior margins; the frontal plate distinctly defined and conspicuously longitudinally grooved.

Eyes composed of 10 ocelli, 1+3, 3, 3; the posterior eye large, irregularly ovate, and widely separated from the rest, the superior ocelli of the cluster larger than the inferior.

Antennæ very long, more than half the length of the body, attenuate, composed of from 58 to 63 subcylindrical, thickly but shortly hairy segments, less thickly hairy quite at the base; apical segment always longer than the one that precedes it, but not thicker.

Coxal plate of maxillipedes smooth, shining, very indistinctly punctured, hairy in front, longitudinally depressed and sulcate throughout its length in the middle, the anterior border angularly excised in the middle, the margins of the excision lightly convex and sloped inwards, bearing on each side 6+6 or 5+5 minute sharp teeth, the external of which are smaller and more separated than the internal.

Tergites minutely and closely punctured throughout, distinctly wrinkled, but very much less wrinkled in front than behind, posteriorly sparsely hairy and roughened; the first six with rounded posterior angles and straight posterior borders, the seventh with its posterior angles slightly produced but not sharp, the posterior borders of the eighth, tenth, and twelfth straight and with the angles squared; the angles of the ninth, eleventh, and thirteenth produced and sharp, the angles of the fourteenth very slightly produced.

Sternites sparsely hairy, mesially and laterally impressed.

Legs long and slender; the first pair armed below as follows—0, 0, 0 (one posterior), 3 or 2 (one anterior), 1; the anal legs armed below as follows—0, 1, 3, 3, 2, or 0, 1, 3, 2, 1; the claw basally spurred, the coxa furnished with one superior and one lateral spine, the coxa of the fourteenth pair with one lateral spine, the rest of the coxæ unspined; coxal pores ovate, 6, 6, 6, 6, arranged in a single series.

Generative forceps in the female with a simple undivided claw, and two separated, diverging, basal spurs on each side.

Length up to 35 millim.; length of antenna of largest specimen 21 millim.

Hab. Mexico, Omilteme in Guerrero 7000 to 9000 feet (*H. H. Smith*).

Obtained under rotting wood &c. about the clearings and neighbouring forest (*H. H. Smith*).

2. **Lithobius pontifex,** sp. n. (Tab. I. figg. 4, 4 *a–d.*)

Colour: upper surface deep ochraceous; head, antennæ, and first tergite deep castaneous and polished; legs and lower surface clear olivaceous.

Body robust, scarcely attenuated anteriorly, strongly attenuated posteriorly.

Head a little wider than long, smooth, very finely and obscurely punctured, the frontal plate deeply grooved longitudinally and mesially, with raised margin.

Eyes composed of 11 ocelli, 1+3, 3, 4, the posterior and superior eyes subequal in size and larger than the rest, the inferior eyes the smallest.

Antennæ long, about half the length of the body, attenuate, composed of 53–56 short, subcylindrical segments, thickly hairy, sparsely so at the base, the apical segment longer, but not thicker, than the penultimate.

Coxal plate of maxillipedes sparsely punctured and hairy, its anterior border nearly straight and but little produced, scarcely excised in the middle line, bearing 3+3 minute, separated teeth, whereof the external is the largest and somewhat spiniform.

Tergites very finely punctured, and, with the exception of the first two, conspicuously wrinkled and sparsely hairy: from the first to the sixth with rounded angles and straight posterior border; the sixth with its angles produced and widely rounded; the seventh also with its angles widely rounded, but more produced than in the sixth; the ninth, eleventh, and thirteenth with their angles strongly produced and sharp; the eighth, tenth, and twelfth with straight or only very lightly emarginate posterior borders; the fourteenth with widely, but not deeply, emarginate border.

Sternites sparsely hairy, mesially and laterally impressed.

Legs: first pair absent; anal legs short, shorter than the fourteenth pair, stout, armed beneath as follows—0, 1, 3, 3, 1; the tibia very thick, thicker than the patella, its upper inner margin hairy, and deeply and widely grooved longitudinally, the groove bearing a conspicuous elongate prominence; the first tarsal segment also enormously enlarged, as wide as and a little longer than the tibia, piriform, narrowed behind, its upper surface deeply and widely excavated, the distal tarsal segment slender and terminated by a double claw; coxa of the anal leg armed with a single superior spine; fourteenth pair of legs of normal form, with unarmed coxæ: coxal pores 5, 4, 4, 3, mostly very large and rounded.

Length 27 millim.; of antenna 12·5 millim.

Hab. Mexico, Amula in Guerrero 6000 feet (*H. H. Smith*).

A single male specimen. This species differs from the preceding in the lesser number of its maxillary teeth and of its antennal segments.

3. **Lithobius humberti,** sp. n. (Tab. I. figg. 5, 5 *a–c.*)

Colour obscure ochraceous, with an olivaceous tint; head and antennæ with castaneous tint; legs and lower surface a little paler than the upper surface.

Body robust; a little narrowed anteriorly and posteriorly.

Head considerably wider than long, more convex than the body, very indistinctly punctured; the frontal longitudinal furrow shallow.

Eyes composed of 10 ocelli, 1+3, 3, 3, the posterior ocellus in contact with the anterior cluster; the superior and posterior ocelli larger than the inferior and anterior.

Antennæ long, a little more than half the length of the body, composed of 52 or 53 short subcylindrical segments, the apical segment longer, sometimes much longer, but not thicker, than the one that precedes it, thickly hairy, except at the base.

Coxal plate of maxillipedes smooth, hairy in front, with a deep median longitudinal sulcus, its anterior border not much produced, distinctly bilobed, the margins of the lobes directed inwards, each furnished with three sharp teeth, whereof the two internal are larger and stronger, and the external smaller and weaker.

Tergites smooth at the anterior end of the body, lightly wrinkled, and shortly hairy posteriorly: first to the fifth with rounded angles and straight posterior border; sixth and seventh with the angles produced, but

widely rounded internally, the posterior border being mesially emarginate; the ninth, eleventh, and thirteenth with the angles produced and sharp, the prolongation with straight inner edge; the eighth, tenth, twelfth, and fourteenth with widely emarginate posterior borders.

Sternites sparsely hairy, mesially and laterally impressed.

Legs adorned with long hairs; the first pair armed below as follows—0, 0, 1 (posterior), 1, 1; anal legs armed below 0, 1, 3, 2, 1 (♂), or 0, 1, 3, 3, 1 (♀), claw double, coxa unarmed; posterior coxæ unarmed; coxal pores rounded, 4, 4, 4, 3 with the proximal pore small (♂), or 5, 4, 4, 4 with the proximal pore not remarkably smaller than the next.

♂. Anal legs shorter and much stouter than the fourteenth pair; the tibia a little thicker than the patella and furnished at its distal end on the upper inner edge with a conspicuous nodular prominence; the proximal tarsal segment elongate-ovate, as thick as the tibia, with a conspicuous longitudinal groove on its upper inner edge; legs of the fourteenth pair normally formed.

♀. Anal legs long and slender, a little longer than the fourteenth pair, and normally formed; generative forceps with the proximal segment narrowed at the base, produced internally, and bearing two spurs, the lower of which is longer and stouter than the upper; the claw long, slender, curved, undivided, and armed basally with a small but conspicuous tooth.

Length up to 18 millim.

Hab. Mexico, Omilteme in Guerrero 7000 to 9000 feet (*H. H. Smith*).

Three specimens (2 ♂, 1 ♀), obtained under rotting wood &c. about the clearings and neighbouring forest (*H. H. Smith*).

This species is very closely allied to *L. pontifex*, from Amula, of which the male only is known. It is, however, very much smaller, and the two internal teeth on each side of the maxillary sternite are large, and the external tooth is either absent or very small; whereas in *L. pontifex* the two internal teeth are minute and smaller than the external. Again, in the male of *L. pontifex* the nodular prominence on the tibia of the anal leg is less projecting, and the groove on the first tarsal segment is much wider and deeper.

4. **Lithobius godmani**, sp. n. (Tab. 1. figg. 6, 6 *a–c*.)

Colour ochraceous or castaneous, darker anteriorly; legs and ventral surface paler.

Body robust, attenuated posteriorly, shining.

Head a little wider than long, lightly convex, smooth, shining, indistinctly punctured, with deep anterior longitudinal frontal groove.

Eyes composed of 9 ocelli, 1+1, 3, 4; the posterior and superior ocelli subequal in size and larger than the rest.

Antennæ long, more than half the length of the body, composed of from 49–53 subcylindrical segments; hairy, but less hairy at the base; apical segment elongate, longer than the penultimate.

Coxal plate of maxillipedes sparsely hairy, mesially and longitudinally sulcate; its anterior border produced and bearing 3+3 teeth, whereof the two internal are large and stout, and the external slender, spiniform, and often absent.

Tergites in the anterior portion of the body smooth, lightly wrinkled in the posterior half, roughened and sparsely hairy: from the first to the sixth with rounded angles and straight posterior border; the seventh with its posterior border emarginate in the middle, and its angles produced, but very wide and scarcely sharpened; ninth, eleventh, and thirteenth with angles strongly produced and sharp; eighth, tenth, twelfth, and fourteenth with posterior borders only very slightly emarginate.

Sternites mesially and laterally impressed and hairy.

Legs: first pair armed below 0, 0, 2, or 1, 1, 1; anal legs about as long as the fourteenth pair, armed below 0, 1, 3, 3, 1, claw double; coxa with superior and lateral spines; coxal pores round, 5, 4, 4, 4, or 4, 3, 3, 3, the proximal pore small when the series consists of 4 or 5.