

PRIODESMUS, A NEW GENUS OF DIPLOPODA FROM
SURINAM.

By O. F. COOK.

THE specimen on which this description is based came into my possession about two years ago, and seems to represent a new *generic* type. That the *species* is also new, I have not the same degree of confidence, for there are a large number of very poorly described South American Polydesmoidea in the literature of the Diplopoda. However, none of the descriptions seem to accord with the present form, nor even to approximate it. I noticed nothing closely comparable among the older types in the British Museum, nor is there anything of the kind among the Petersian types of the Berlin Museum. There is, however, in the Berlin Museum an undetermined female specimen from Para which is certainly generically the same, and may possibly prove to be specifically identical, for a satisfactory knowledge of the secondary sexual characters of the genus is impossible until more specimens have been obtained.

PRIODESMUS, new genus.

Rhachidomorpha, PETERS, *pro parte*, not of SAUSSURE.

Body rather small.

Antennæ with four olfactory cones.

Segments dorsally thickly beset with small and large granules.

Lateral carinæ of moderate width, the margins deeply incised-dentate.

Repugnatorial pores 11, dorso-lateral, on capitate processes of segments 5, 7, 9, 10, 12, 13, 15-19.

Penultimate segment not specially shortened.

Last segment triangular, the apex rounded.

Sterna of legs 3-6 of males, each with two conic processes; other sterna unmodified.

Male legs slightly crassate, the third joint of legs 4-7 inflated on the ventral side.

The following more detailed description is given:

Body rather small, about nine times as long as broad, sides parallel to near the ends; cavity circular.

Vertex granular, sulcus evident; post-antennal depression moderate; sense organ large; margin not excised.

Labrum slightly emarginate, with three distinct teeth.

Antennæ subclavate, joints in order of length 2, 3, 4, 5 = 6, 1, 7, beset with piliferous granules.

Mandibulary stipe with exposed surface granular, divided into the usual five areas.

Hypostoma strongly arcuate, deeply and broadly emarginate in front. Cardo present, *in situ* perpendicular to the stipes. Mentum subtriangular, broader than long, pointed in front, very broadly emarginate behind, densely granular-pilose. Stipes three times as long as broad, granular-pilose, a deep sulcus near the lateral margin. Lingual laminae three times as long as broad, granular-hirsute. Lingual and median lobes distinct.

First segment less than three times as broad as long (13:7); anterior and posterior margins convex; posterior corners acute; lateral margins dentate. The segment is subequal in width to the head, and distinctly narrower and longer than the second segment.

Segments with dorsal surface slightly convex, densely beset with granules of two sizes, the smaller very numerous and without order, the larger more or less evidently arranged in three transverse rows. Fourth and subsequent segments with a distinct transverse furrow.

Lateral carinae moderately broad, about one-fourth as wide as the body cavity, inserted nearly on a level with the dorsum; margin thickened and deeply excised into coarse teeth, longer on posterior segments and directed caudad.

Repugnatorial pores of medium size, directed laterad, located on a large capitate horizontal process rising from near the middle of the carinae of segments 5, 7, 9, 10, 12, 13, 15-19. Below the carinae the segments are densely granular. Inferior carina interrupted, represented by an anterior and a posterior dentate process, both large and distinct. Anterior subsegments distinctly, though very minutely, granular.

Supplementary margin rather long, irregularly striate longitudinally, the free edge entire.

Last segment as long as the preceding, with twelve setiferous tubercles and four apical setae. Eight of the setiferous tubercles are located in the apical portion of the segment; the other two pairs on the sides below the level of the carinae.

Anal valves with moderately elevated, compressed margins and two setigerous tubercles, the upper located on the margin, the lower considerably removed from it.

Preanal scale triangular, pointed; two setigerous tubercles toward the apex.

Sterna sparsely and minutely granular, a very small conical spine at the base of each leg (in the male only?); spiracles large, the margins tumid. Sterna of legs 3-6 of male, with a large conical spine at the base of each leg.

Legs of male slightly crassate; the ventral face of the third joint of legs 4-7 inflated.

Second legs of male with coxæ stout, produced ventrad into a rounded-conic process, in the median face of which is the opening of the seminal duct.

Male genitalia with the basal joint large and bulbous; second joint very short, with two processes of subequal length, the larger toothed at apex, the smaller simple, needle-like.

Priodesmus is a type strikingly different from any of the related genera, and although the differences are mostly quantitative, the new form shows, as far as is yet known, the extreme of development and specialization in the line it represents. Indeed, the aspect of the animal is so bizarre and peculiarly different from evidently related genera as to warrant the suspicion that it will be found explainable by some unusual local condition.

The affinities of this genus are with species described under *Rhachidomorpha*, such as *R. nodosa*, Peters, which appears to be nearer to the present form than to *R. tarasca*, Saussure, the type of that genus, and may, at least provisionally, stand as a species of *Priodesmus*.

PRIODESMUS ACUS,¹ new species.

(Plate I, figs. 1-19.)

Body oblong, the sides parallel, the segments of nearly equal width to near the extremities; dorsum slightly convex, the carinae horizontal.

Vertex prominent, especially above; densely granular, without hairs; sulcus deep, extending below the antennæ, but there very indistinct. Between the antennæ it meets an indistinct sulcus from each antennal socket, the two converging caudad at the point where the vertical sulcus ceases to be distinct.

Clypeus smooth and shining, with a few distinct granules; no hairs, though these may have been rubbed off. The surface is granular immediately below the antennæ, but smooth farther down and in the middle.

Antennæ moderately pilose, the hairs rising from conic granules; length, 5 mm.; joints 2-6 subequal, second joint longest, the sixth much the thickest.

Mandibular stipes rather large, the sutures appearing as fine, smooth lines in the granular surface.

First segment somewhat lenticular in outline; a fine anterior raised margin; traces of four transverse rows of large granules. Lateral edge somewhat irregularly quadridentate, the posterior tooth somewhat produced obliquely backward. Somewhat removed from the lateral margin is an oblique sulcus.

Subsequent segments shorter than the first; large granules in three distinct rows, the third of which is close to the posterior margin; the four marginal teeth more or less distinct, the posterior increasing in

¹The generic name alludes to the coarsely serrate segments; the specific to the slender process of the male genitalia.

length. The whole surface of the segments is thickly granular, except the apices of the marginal teeth and the large granules, which are smooth and shining; anterior margin of carinae raised on anterior segments.

Fourth and subsequent segments to the eighteenth with a transverse furrow, very indistinct on the fourth and eighteenth; on some of the segments the transverse furrow divides, the branches turning to the anterior and posterior margins.

Repugnatorial pores located near the middle of an oval smooth area which faces obliquely upward, laterad and cephalad; pore immediately surrounded by a very minute rim.

Lateral carinae coarsely dentate as above, and with a fine raised anterior margin.

On posterior segments, the whole carina is more curved caudad and produced. Last segment with finer granules than the preceding.

Anal valves finely granular-rugulose. Preanal scale with surface evenly convex and with scattering granules.

Legs moderately pilose, the surface scarcely granular. The prominence of the ventral face of the male legs is somewhat more densely pilose. The process of the coxa of the second male legs is smooth and shining, but with a long bristle at apex.

Male genitalia with apex of larger branch deeply bidentate; the smaller tooth simple, pointed; the larger flattened at right angles to the smaller, and with several small teeth.

Color dull reddish-brown, rather dark; legs and antennae lighter, tending to yellowish; ventral surface and basal joints of legs sordid brownish.

Length, about 27 mm. (the specimen was broken); width, 3 mm.

Locality.—One male specimen in the National Museum collection, obtained in Surinam, May, 1893 (Beyer).

PRIODESMUS PARÆ, new species.

The species differs from *P. acus*, as here described and figured (Pl. I, figs. 1-19), in the following details:

Dorsum distinctly, though not strongly, convex.

Vertex densely granular-rugulose.

Antennae somewhat more slender.

First segment distinctly narrower and slightly longer than in *P. acus*; the posterior corners not prominent and spiniform as in that species.

Dorsal surface about as densely granular as in the figure of *P. acus*; the large granules of the anterior and posterior rows more distinct, those of the other rows less so. Anterior raised margin not evident.

Subsequent segments somewhat more densely granular, as above; the anterior and posterior rows of large granules larger, the middle inconspicuous.

Lateral carinæ not as broad as in *P. acus*, a usual sexual difference, but the posterior corner is in all cases less produced than in that species, and the large tooth of the posterior corner is rounded and not prominent, while the next mesad on the posterior margin is conspicuously enlarged, on the anterior segments more especially.

Repugnatorial pores located as in *P. acus*, but the poriferous process shorter and less distinctly capitate.

Last segment distinctly shorter than in *P. acus*; the superior lateral tubercle smaller.

Preanal scale regularly semicircular, medianly abruptly mucronate; the setigerous tubercles distinctly less prominent than in *P. acus*.

Legs much shorter, a usual sexual difference.

Genitalia oblong, large, and very prominent, with the ventro-caudal aspect showing three distinct teeth on each side.

Color in alcohol bright brown, darkest on anterior segments and in the sutures and transverse sulci of the dorsal surface of the segments; ventral surface, legs, antennæ, and margins of carinæ nearly white. The color is almost exactly the same as in *P. acus*, but the shades are much lighter.

Length, 28 mm.; width, 3.3 mm.

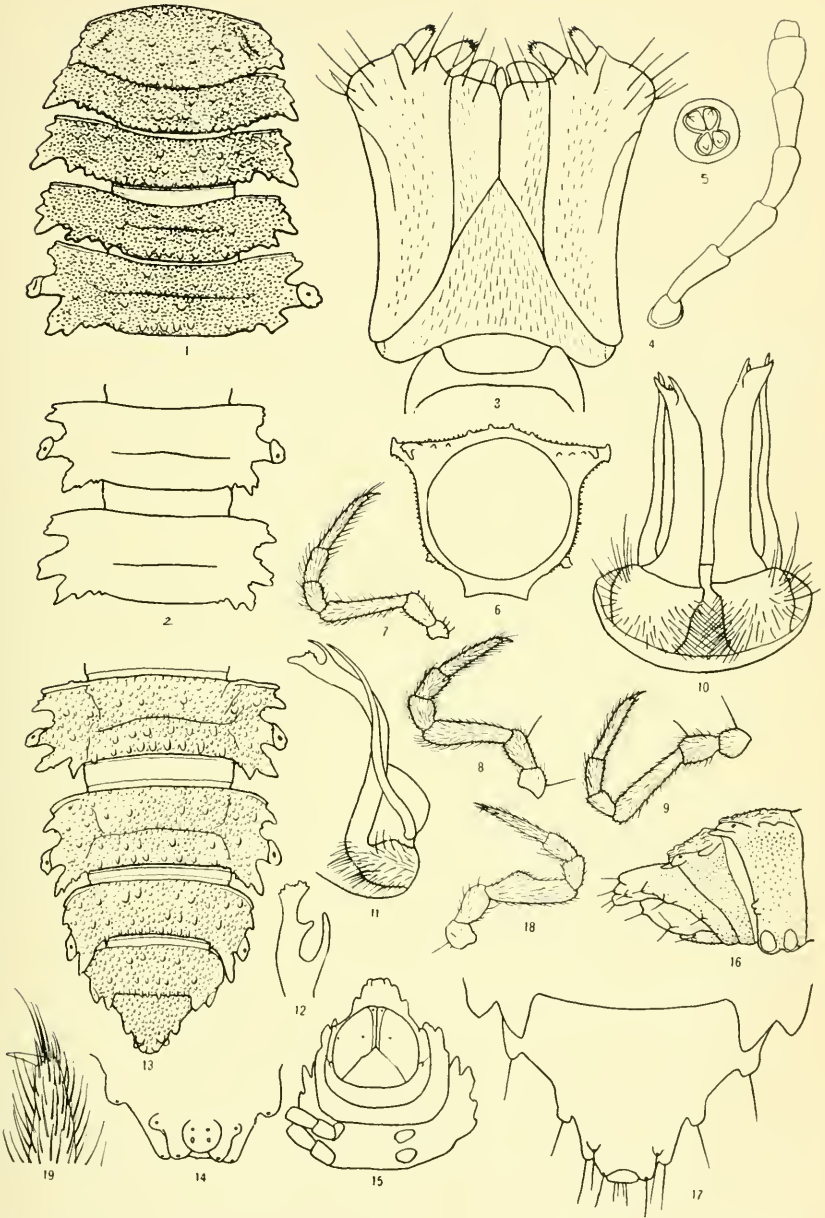
Locality.—Para (Schulz). A single female specimen in the Berlin Museum. As stated above, this may prove to be the female of *P. acus*, but the differences are such that the analogy of other Polydesmoidea makes this improbable.

EXPLANATION OF PLATE I.

Priodesmus acus, male.

- FIG. 1. First five segments, dorsal view.
 2. Segments 7 and 8, dorsal view; the small granules are somewhat too numerous on this figure.
 3. Gnathochilarium.
 4. Antenna.
 5. Apex of antenna, showing the arrangement of the olfactory cones, sub-diagrammatic.
 6. Tenth segment detached.
 7. Leg of pair 31.
 8. Leg of pair 3.
 9. Leg of pair 9.
 10. Genitalia, ventral view.
 11. Genitalium, lateral view.
 12. Apex of larger ramus of genitalium.
 13. Segments 16-20, dorsal view.
 14. Apex of last segment, apico-ventral view.
 15. Segments 18-20, ventral view.
 16. Same, lateral view.
 17. Last segment, dorsal view, more magnified.
 18. Leg of pair 6.
 19. Apex of same.





PRIODESMUS ACUS, MALE

FOR EXPLANATION OF PLATE SEE PAGE 57

