

but sharpish teeth, which, however, vary in size upon different segments, but are never so large as in *P. montivagus*; the pore-bearing keels show a shallow emargination or a toothless smooth area opposite the pore which is quite close to the lateral edge; the keels without pores generally exhibit a lateral notch, which is visible even on the 4th segment. The *dorsal surface* closely granular, with the three rows of tubercles just traceable on the middle of the body, and more distinct at its anterior and posterior ends, especially upon the lateral slope of the segments. Lateral border of the keels of the 2nd convex, tubercularly toothed, with the posterior angle more convex and less prominent than the anterior; *first tergal plate* with tubercles extending nearly round its circumference, slightly depressed behind its anterior border, which is evenly convex to the blunt lateral angle. *Head* without distinct frontal tubercles, such as are seen in *P. bivirgatus* and *P. tristani*. *Sternal area*, from the 4th to the 7th, with a distinct tooth-like tubercle at the base of each leg; from the 7th backwards these tubercles gradually die away; sterna of 5th and 8th longitudinally and transversely sulcate; those of the median and posterior areas markedly notched laterally and angularly excised posteriorly, the posterior notches being more or less coxiform; all the sterna granular and generally wrinkled. *Caudal process* short, widely rounded. *Anal sternal plate* wide, with rather large tubercles.

♂. Smaller than the ♀, but with the keels relatively larger and more strongly excised. No distinct tooth on the sternal area of the 4th; sternal area of 6th and also of 7th behind the phallopods also untoothed. *Phallopods* stout, crossed, gradually curved upwards at the end, the auxiliary branch sickle-shaped, attenuated and pointed; seminal stile relatively long and showing a distinct but not strongly pronounced sigmoid curvature.

Length, ♀, 75-80 millim., width 11-12.

„ ♂, 55-65 „ „ 7.5-8.

„ ♂ (type), 55 „ „ 12.

*Hab.* COSTA RICA (*Rogers*), Rancho Redondo 2000 metres (*Biolley* <sup>1</sup>).

### TIRODESMUS\*.

*Tiroidesmus*, Cook, Brandtia, xii. (1896).

*Keels*, except at the anterior and posterior ends of the body, very large, laterally narrowed owing to the oblique backward inclination of the anterior border, the lateral border, where defined, only about half the length of the base of the keel, the anterior and lateral borders forming a continuous arch broken only by the teeth marking the commencement of the lateral edge; upper surface of metazonites studded with coarse comparatively widely spaced granules, amongst which the three rows of tubercles, especially the posterior, stand out like pearly pustules; both anterior and posterior borders of the first tergal plate raised and studded with coarse pearly tubercles; the plate markedly hollowed longitudinally in the middle and transversely behind the anterior border. *Antennae* long, second to fourth segments much longer than their distal thickness, the second much longer than the first. *Legs* long and slender; third segment at least twice as long as the width of the sternum, sixth segment tapering to a point which is scarcely wider than the base of the long slender claw. *Phallopods* not arcuate and not upcurled apically, projecting straight forwards, distally spatulate, with the seminal stile directed forwards. *Sternum* of the sixth not excavated, as high behind as in front.

Type, *T. fimbriatus*, Peters.

*Distribution.* Central and South America.

#### 1. *Tiroidesmus biolleyi*. (Tab. X. figg. 9-9 b.)

*Platyrrhacus biolleyi*, Carl, Rev. Suisse Zool. x. p. 658, t. 11. figg. 67, 68 (1902) <sup>1</sup>; Brölemann, Ann. Soc. Ent. France, lxxiv. p. 341 (1905) <sup>2</sup>.

*Colour* black or dark brown, with the extreme margin of the keels and the larger dorsal tubercles yellowish-white.

\* Omitted from the 'Zoological Record.'