

Only one genus of this family has been recorded hitherto from Central America. But amongst the representatives from this country that I have had an opportunity of examining there may prove to be material for two genera based upon secondary sexual characters of the female; and, so far as the North-American forms are concerned, the species known to me from descriptions and actual specimens suggest the possibility of establishing one or more genera distinct from *Paraiulus*. But the material at my disposal is not sufficiently extensive to permit satisfactory diagnoses, especially as two of the species (namely *P. pennsylvanicus*, Brandt, and *P. obtectus*, Bollman) have been made the types of two as yet uncharacterized genera, the former being named *Ptyoiulus* by Cook [Ann. N. York Acad. Sci. ix. p. 6 (1895)], and the latter (which has been twice, in two separate papers, described as a new genus) *Pseudoiulus* by Bollman [Ann. N. York Acad. Sci. iv. p. 32 (1887)]. *Pseudoiulus* was afterwards by its author discovered and stated to be based upon an immature stage. Nevertheless the name will have to be adopted if, in the future, it be found that the adult of *P. obtectus*, for which the Bloomington specimens may be regarded as representing the types, be generically distinct from *Paraiulus olmecus*.

### PARAIULUS.

*Parajulus*, Humb. et Sauss. Rev. et Mag. Zool. 1869, p. 155; Miss. Sci. Mex., Myr. p. 93 (1872)  
(type *P. olmecus*).

*Paraiulus*, Latzel, Myr. Oest.-Ung. Mon. ii. p. 55 (1884).

*Parajulus*, Bollman, Ann. N. York Acad. Sci. iv. p. 32 (1887).

? *Pseudojulus*, Bollman, loc. cit. (type *P. obtectus*, Bollm.).

? *Ptyoiulus*, Cook, Ann. N. York Acad. Sci. ix. p. 6 (1895) (type *P. pennsylvanicus*, Brandt).

The four Central-American species of which the genitalia are known have the following features in common:—

- ♂. Sterno-coxal sclerite of second legs furnished with a pair of juxtaposed forwardly directed processes; the rest of the appendage retained as a four-jointed limb widely separated from its fellow of the opposite side; posterior pair of appendages of seventh segment (phallopods) triramous.
- ♀. Appendages of second pair retained. Genital orifices strengthened with a pair of large sclerites.

*Synopsis of the Species, based upon characters mostly observable without dissection.*

#### *Males.*

- a. Inner (admedian) rami of anterior pair of appendages of seventh segment slender, attenuate, and apically pointed . . . . . *stylifer*, sp. n.
- b. Inner (admedian) rami of anterior pair of appendages of seventh segment stout in the basal half, slender in the distal, with the inner edge straight, the outer concavo-convex, and the apex blunt.
- a<sup>1</sup>. Legs of first pair only moderately inflated in the middle of their length . . . *olmecus*, H. & S.
- b<sup>1</sup>. Legs of first pair strongly inflated in the middle of their length.
- a<sup>2</sup>. Apex of admedian branch of anterior pair of seventh segment with a