

ART. XXVIII.—*Descriptions of two new genera of Pycnogonida* ;
by E. B. WILSON. *Brief Contributions to Zoology from the*
Museum of Yale College. No. XXXVII.

Anoplodactylus, (nov. gen.)

Body slender. Rostrum cylindrical, rounded. Antennæ three-jointed, chelate. Palpi wanting. Ovigerous legs six-jointed, wanting in the male. Neck elongated, extending forward over the rostrum. Legs nine-jointed. Dactylus without auxiliary claws.

THIS genus differs from *Phoxichilidium*, which it otherwise closely resembles, in the number of articulations composing the ovigerous legs, and in the absence of auxiliary claws upon the dactylus. These claws, though comparatively small in *Phoxichilidium*, are very large in certain genera (e. g. *Pallene* Johnst.) They are movably articulated to the dactylus and furnished with a special set of muscles by means of which they are moved.

To this genus should be referred Kröyer's *Phoxichilidium petiolatum* (Voy. en Scand., Laponie, etc., Pl. 38, fig. 3) and probably also the *Phoxichilidium virescens* of Hodge.

Anoplodactylus lentus (sp. nov.).

Phoxichilidium maxillare Smith, in Rep. on the Invertebrates of Vineyard Sound, p. 250, Pl. VII, fig. 35, 1874 (*non* Stimpson).

Oculiferous segment broad, as long as the two following segments taken together, not emarginate between the bases of the antennæ. Neck swollen. Posterior segment of body very slender. *Abdomen* rather more than twice as long as broad, slightly bifid at the extremity.

Oculiferous tubercle prominent, acute, placed on the anterior portion of the first segment. Eyes four, ovate, varying in color from light brown to black.

Rostrum very large, longer than the oculiferous segment, constricted at base, thus appearing somewhat clavate. The extremity is subglobose.

Antennæ hairy, long and slender, their bases closely approximated. Basal joint extending beyond extremity of rostrum. Chela stout, hairy. Dactylus very stout, smooth on margin.

Ovigerous legs stout, roughened by minute tubercles, the outer joints with many strong hairs, most of which are directed backward. The two basal joints are very thick; the first is shorter than its width, the second about twice the first. The succeeding joints are much more slender. The third is nearly two and a half the second, somewhat clavate, and suddenly constricted a short distance from the base. Fourth joint half the third. Fifth considerably less than fourth. Terminal joint much smaller than the preceding.

Legs very long and slender. First and third joints very short, the second considerably longer and clavate. The three following joints are much longer, the sixth being the longest. The seventh or tarsal joint is very short and deeply emarginate exteriorly. Eighth joint (propodus) curved, with a rounded lobe near the base, which bears five or six strong spines. Exterior to these is a series of much smaller stout spines. The dactylus is stout, about two-thirds as long as the propodus. The whole surface of the body is scabrous. The legs bear a few scattered hairs, which are more numerous on the outer joints.

The genital orifices are situated on the lower side of the second joint of the legs, near the external margin. The sexes resemble each other closely except in the absence, in the male, of the ovigerous legs. The males are also, as a rule, slightly larger than the females. "It is most frequently deep purple in color, but gray and brown specimens are often met with." (Verrill).

This species is common in Vineyard Sound, but does not



Fig. 1.—*Anoplodactylus tentus*.
a, Terminal joints of leg; b, ovigerous leg.

occur northward. It resembles the "*Phoxichilidium*" *petiolatum* of Kröyer, which has, however, according to the figures, the anterior segment much more slender and emarginate between the bases of the antennæ which are thus separated by a distinct interval, the posterior segment is represented as stouter and shorter, the proboscis more abbreviated, and the propodous of a different shape. Kröyer figures the ovigerous legs with seven joints, probably mistaking the constriction near the base of the third joint for an articulation.

Length of body in largest specimens (inclusive of rostrum and abdomen), 7 millimeters. Legs, 30 millimeters.

Pseudopallene, (gen. nov.).

Body robust. Neck broad and thick. Rostrum more or less acute. Antennæ three-jointed, chelate. Palpi wanting. Ovigerous legs composed of eleven joints. Legs nine-jointed. Dactylus without auxiliary claws.

This genus has not hitherto been distinguished from *Pallene*, and this has led to some confusion in the diagnosis of that genus.

In *Pallene*, as described by Johnston (Mag. Zool. and Bot., vol. i, p. 380), the ovigerous legs are nine-jointed, the neck is constricted and more or less elongated as in *Nymphon*, the rostrum is very short and nearly hemispherical, and the dactylus is armed with two very large auxiliary claws. A *Pallene*, to be hereafter described, collected by Prof. S. I. Smith at Wood's Holl, Mass., agrees in all these points with Johnston's *P. brevirostris*. The three species: *Pallene spinipes*, *P. intermedia* and *P. discoidea* figured in Gaimard's Voy. en Scand., Laponie, etc., do not belong to the *Pallene* of Johnston, but should probably be referred to *Pseudopallene*. Having seen no specimens of these species, I have been unable to verify this.

Pseudopallene hispida.

Pallene hispida Stimpson, Inv. of Grand Menan, p. 37, 1853.

Of this species there is but a single female specimen in the collection of the Peabody Museum, dredged by the United States Fish Commission in Johnson's Bay, near Eastport, Maine, in 12 fathoms rocky bottom. Stimpson records it from deep water off Grand Menan, "on *Ascidia callosa*." His description being incomplete in several particulars, a full description is here given.

Body very broad, oval, neck not constricted. Oculiferous tubercle small, rounded. Eyes four, ovate, light brown. Oculiferous segment half as long as the body. Second and third segments with three prominent tubercles above, each of which is tipped by a hair. The lateral thoracic processes are very broad and are not separated by any interval; they bear on the outer margin two to four spine-like, hairy tubercles. Abdomen twice as long as broad, truncate, hairy.

Rostrum as long as oculiferous segment, with a constriction on each side below, giving it the appearance of being articulated at this point, acute-conical, with a rosette of filamentary processes around the terminal mouth.

Antennæ hairy, stout and swollen, about twice as long as the rostrum, tipped with amber color. Basal joints enlarged near their attachment. The second joint has a prominent rounded tubercle on the lower end, behind which the dactylus closes.

Ovigerous legs slender, eleven-jointed, terminal joint claw-like, trifid. Fifth joint somewhat clavate, considerably smaller than the fourth. The four outer joints are armed with three or four stout, smooth, curved spines.

Legs very stout, the three basal joints short, overlapping each other in an imbricated manner. Fourth joint as long as the three basal joints taken together, much distended by the ovaries in the specimen described. Fifth, as long as the fourth but much more slender. Sixth, longer and more slender.

Seventh (tarsus) very short, nearly triangular. Eighth slightly curved, armed with five or six spines on the inner (concave) margin. Dactylus slender, curved, acute, without accessory claws, about two-thirds as long as the preceding joint.

All of the legs bear more or fewer prominent, conical, spiny tubercles. These are arranged in longitudinal rows on some of the joints, particularly on the fifth and sixth, which appear deeply serrate on the external margin. The entire surface of the body is rough, and more or less hairy.

Genital orifices small, on the second joint of the legs.

Length (inclusive of rostrum and abdomen) 3 millimeters. Legs, 7.5 millimeters. Ovigerous legs, 3.7 millimeters.

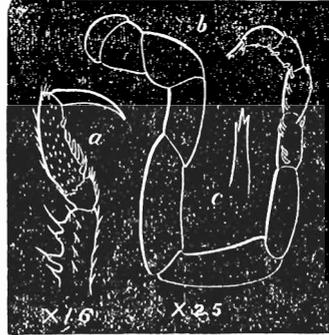


Fig. 2.—*Pseudopallene hispida*.

a, Terminal joints of leg; b, ovigerous leg; c, terminal joint.