

falls, being attached by one angle: the moveable plate does not close as an operculum, but is inserted marginally, and both chamber and plate are fringed with rather long, finely ciliated, thickly-set hairs. At the foot of the appendage is a broad, flat, curved plate, thinly fringed with long hairs. The anterior extremity of this siagnopod reaches forwards beyond the base of the antennæ; it passes beyond the mandibles, and it is through this channel that the water of expiration passes out of the branchial chamber, the moveable plate at the extremity being probably a valve which admits of its more or less rapid egress. I have not determined the exact form of the mastigobranchial plate in this appendage, as it was partially ruptured.

The first pair of gnathopoda is short, not reaching beyond the mandibles, and seven-jointed, but carries no ephysis. The coxa is short, the basis is scarcely more important, and, without close observation, appears united with it; the ischium is short and cylindrical; the meros long, ovate, very slightly flexed, concave below; the carpos is transversely triangular, being broader at the propodal extremity than at the meral; the propodos is short, narrow and cylindrical, and the dactylos is reduced to a strong slightly curved spine; all the joints are fringed on the inner side with hairs, stiff and firm on the propodos and carpos, soft, yielding, and ciliated on the meros and ischium.

The second pair of gnathopoda is as long again as the first, and reaches forwards as far as the first joint of the antennæ. It is long and slender, and consists of six joints. The coxa is broad, and carries a rudimentary mastigobranchia, consisting of a minute sharp-pointed membranous plate, supporting a few short hairs; the basis and ischium are fused into one long joint, arched on the outer side and flattened on the inner, and longitudinally curved; the meros is long, and continues the arch of the previous joints; the carpos is cylindrical and short; the propodos is also cylindrical and short, but longer than the carpos; the dactylos is lanceolate and thickly fringed with hairs, as is the entire appendage, but more sparingly, with long ciliated hairs, mostly on the inner side.

The first pair of pereiopoda is as long as the animal, slender, flattened, and chelate.

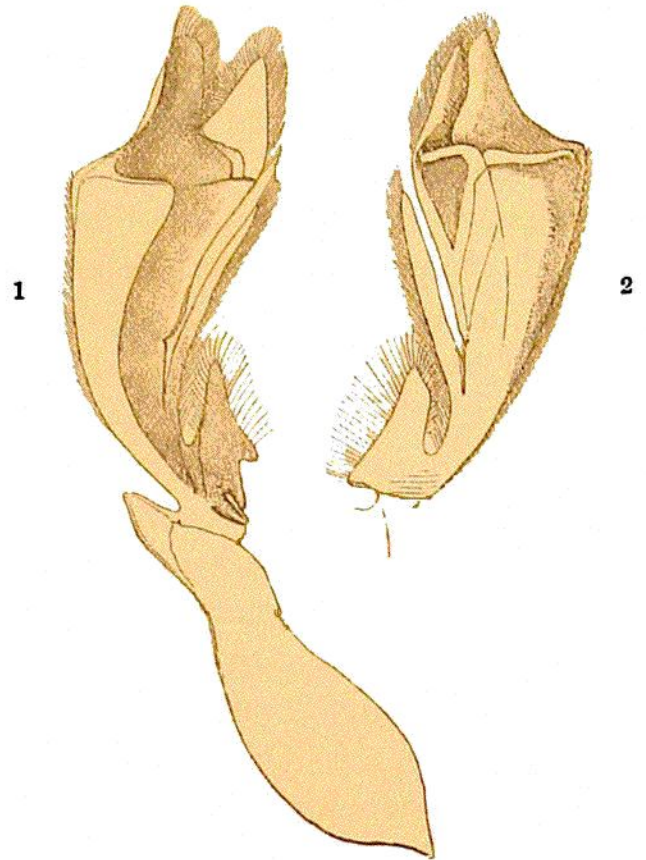


FIG. 32.—Third siagnopod, (maxillipede) of *Polycheles baccata*. 1 outer, 2 inner surface.