

four teeth on the upper margin, of which the second is the most conspicuous; the lower divides into two, each being armed with a few conspicuous teeth.

The second and third pairs are slender and chelate and armed on the upper or outer margin of the meros with three or four sharp teeth.

The fourth and fifth pairs are subchelate and have two sharp teeth on the anterior part of the upper margin of the meros, and two or three on the lower. They have the propodos roughened on the outer side by numerous anteriorly-directed tubercles, the summits of which are crowned with a fasciculus of stiff hairs; that on the inferior distal extremity of the posterior pair is also armed with a small tooth and forms a rudimentary pollex; the dactylos in each is much longer than the pollex and narrower than the propodos.

The posterior pair of pleopoda, forming the lateral plates of the rhipidura has a distinct smooth ridge down the middle of the inner and outer plates. On the outer it is produced to the posterior margin, passing through the minutely serrate diæresis; on the inner it terminates in a sharp tooth within the margin.

*Observations.*—The specimen from which I have drawn the description is a female, apparently of mature growth, being nearly 4 inches in length. It has the vulva closed by a calcified operculum. In general aspect it more nearly resembles the specimens of *Astacopsis franklinii* of Gray than any others; but differs from them in several details, among which the most conspicuous are the absence of a strong cusp or tooth from the centre of the pollex of the first pair of pereopoda, the presence of conspicuous teeth on the first antennal region of the carapace, the large tubercles on the branchial region, and the absence of five or six sharp teeth on the lateral walls or coxal plates of the second somite of the pleon.

*Astacopsis sydneyensis*, n. sp. (Pl. XXVII. fig. 2).

Carapace smooth with microscopically small punctations and hairs. Rostrum having three small teeth on each side. Two teeth, one before the other, on each side behind the orbit. Pleon smooth. Telson slightly dentate and corrugated.

First pair of pereopoda slightly unequal, surface smooth, margins slightly roughened. Carpos with one tooth on the inner and one on the upper margin; meros with three on the upper and three on the lower margin.

Length (female), 50 mm. (2 in.).

*Habitat.*—Sydney, Australia. One specimen.

The carapace is smooth and minutely punctate over the entire dorsal surface, laterally sparsely covered with microscopically small hairs, which on the branchial region exist in small fasciculi. The rostrum tapers to a sharp point, and the sides are