

cervical sulcus. Lateral walls tuberculated, with two irregular rows traversing the upper portion of the branchial region and two or three sharp-pointed teeth on the anterior portion of the branchial and hepatic regions.

Pleon dorsally smooth and laterally furnished with numerous large spine-like teeth that increase in number and lessen in size on each somite posteriorly.

First pair of pereopoda large, chelate, subequal. Margins furnished with small teeth, a double row being on the outer side of the propodos.

Second and third pair chelate, fourth and fifth subchelate and spinous.

Pleopoda absent from the first somite. Those of the four following are biramose. That of the sixth somite is large and foliaceous and forms the outer plates of the rhipidura. The outer plate is furnished with a finely ciliated diæresis.

Telson broad, rounded posteriorly, dorsal surface having many small sharp teeth; posterior margin crenulate.

This species has been fully described and carefully figured by Dr. Camil Heller in the volume on the Crustacea taken during the cruise of the Austrian frigate "Novara," under the name of *Astacoides spinifer*. The year 1865 is appended to the several plates, but the publication of the volume took place in the year 1866. In the month of May in this latter year this same species was also described under the name of *Astacus armatus*, with considerable care and minuteness, by Dr. E. von Martens, who specially remarks on the resemblance of the scaphocerite of the second pair of antennæ, and of the diæresis of the outer plate of the rhipidura to the same parts in *Homarus*.

Both these accomplished zoologists were cognisant of *Astacoides nobilis*, Dana, with which they compared it, and they affirm that it was easily distinguished by the form of the rostrum, that of *Astacoides nobilis* being smooth at the sides and rounded at the extremity, that of *Astacopsis spinifer* being sharp at the extremity and armed with teeth along the sides.

In the Memoir on the Crayfish by Professor Huxley this species has again been figured, one-third of the natural size, under the title of an Australian Crayfish. He adds in a footnote, "The nomenclature of the Australian Crayfish requires thorough revision. I therefore, for the present, assign no name to this Crayfish. It is probably identical with *Astacoides nobilis* of Dana and the *Astacus armatus* of von Martens."

Length, measured from the extremity of the rostrum to that of the telson, 200 mm. (8 in.) male.

*Habitat*.—Paramatta River, Sydney, New South Wales. Heller gives New Holland as the locality of the specimen he has described, and Dr. von Martens states that his was taken from the Murray River in Australia. Thus it would appear that this species is tolerably well distributed in the provinces, and probably exists in many if not in all the rivers in the southern portion of the great Australian continent, and is probably identical with that mentioned by Dr. J. Gray in a paper on the Australian Crayfishes,