

not meet above, but project over the upper level of the arm, and bear a large, club-like, rough spine, about 1.2 mm. long. Disk thin, and with deep constrictions in the interbrachial spaces. The smooth translucent skin allows the long and narrow radial shields to be seen; they are pointed within where they do not meet, and are separated their entire length; at their outer end they are elevated, and carry a jointed spine similar to that of the arms. The first pair of armpores has no tentacle scales; but those beyond have two, which are thick and club shaped, with rough ends, and, unlike those of *Astroschema*, are nearly equal in size, and not much elongated towards the middle of the arm, where they bear bunches of minute hooks on their ends, and have a pedunculated look, owing to the elongation of the side arm plates. Colour in alcohol, light yellowish-brown.

Station 235.—June 4, 1875; lat. 34° 7' N., long. 138° 0' E.; 565 fathoms; mud.

Astronyx.

Astronyx, Müll. & Tr., Syst. Ast., 1842.

Disk large, arched, well distinguished from the long slender, simple arms; and, like them, covered by a smooth, naked skin which obscures the underlying parts: the radial shields may, however, be clearly made out, as slender ridges radiating from the centre of the disk. Teeth, and tooth papillæ similar and spiniform, as are the few mouth papillæ. Side arm plates like little pads bearing hooked arm spines, and connected by a small shapeless under arm plate. Sides and top of arm quite naked, there being no upper arm plates. Two small genital openings in a depression at the inner angle of the interbrachial space.

On removing the skin this genus is found to have well-marked side mouth shields, and, in their open angle, is a minute mouth shield; one of them, larger than the rest, is the madreporic plate, which Müller and Troscher correctly located, though they did not recognise it as a mouth shield. The peristomial plate is large, transverse oval, and in a single piece. The long narrow radial shields are broken in pieces, somewhat as in *Astrophyton*. They are attached to very wide flat genital plates, to whose inner end is fastened a small plate which may be the genital scale.

Species of *Astronyx* not herein described.

Astronyx loveni, Müll. & Tr., Syst. Ast., p. 119, 1842.

North European Seas; Japan; 350 fathoms.