

as in *Metalia* moderately broad, but scarcely more indented than in *Brissopsis* and *Hemiaster*. It has, like *Brissopsis*, an anal fasciole, and a closed subanal fasciole independent of it (Pl. XXXV.^b fig. 15). The actinal plastron is very elongated, narrow, extending from the diamond-shaped subanal fasciole nearly to the actinostome (Pl. XXXV.^b fig. 14). The actinostome is broadly transverse, the ambulacral areas broad, carrying large tufted ambulacral tubes to the edge of the ambitus. The spines of the abactinal surface do not differ in their general aspect from those of *Metalia sternalis*. The paired ambulacral petals are sunken much as in *Hemiaster* (Pl. XXXV.^b fig. 12), the anterior pair are widely separated, placed at right angles to the longitudinal axis; the posterior pair make but a slight angle with it, are less sunken and are separated by a well-defined rounded ridge. There are four genital pores placed close together. This species seems to be intermediate between *Brissus* proper and the species which have been separated from it, as *Metalia* (*M. sternalis*) and the like. The apex corresponds as in *Metalia* with the abactinal system (Pl. XXXV.^b fig. 13), and is placed nearer the anterior extremity, while it is posterior in *Rhinobrissus*.

The only specimens thus far collected show that this species is smaller than *Rhinobrissus pyramidalis*; the spines of the abactinal surface are short, of uniform size; on the actinal side in the lateral posterior ambulacra they are remarkably long, their colour in alcohol is whitish.

Papeete Harbour, Tahiti, 20 fathoms. September 28, 1875.

**Cionobrissus*.

Cionobrissus, A. Agassiz, 1879, Proc. Am. Acad., vol. xiv. p. 206,

This genus is specially interesting, forming as it does a transition between the *Brissina* and the *Pourtalesia*. It has the facies of the former (Pl. XXIII. fig. 1), resembling such forms as *Brissopsis*, but having retained somewhat the cylindrical form of the *Pourtalesia*, and also possessing a rudimentary anal snout (Pl. XXIII. figs. 1, 4, 7) immediately below the anal system, so characteristic of the latter family, and of which the beak of the subanal plastron in *Echinocardium* and the like is perhaps the first trace, or of which the well defined area enclosed by the subanal fasciole is the first rudiment, and which in the *Pourtalesia* takes so extraordinary a development as an anal snout. This characteristic feature of the *Pourtalesia* of a subanal fasciole running round the base of the anal snout (Pl. XXIII. fig. 7) is combined in *Cionobrissus* with a peripetalous fasciole of the *Brissina* (Pl. XXIII. figs. 1, 6), and ambulacral petals recalling those of *Macropneustes* from the presence of large primary ambulacral tubercles in the interambulacral areas (Pl. XXIII. fig. 6) within the peripetalous fasciole. The groove of the anterior ambulacrum extends to the actinostome (Pl. XXIII. fig. 9), but is far less marked than in the *Pourtalesia*, and the actinal surface is not flattened but arched (Pl. XXIII. figs. 4, 5), as is