

Atlantic, as the accompanying widely-separated localities where it was collected by the Challenger indicate.

Station 49. May 20, 1873. Lat. $43^{\circ} 3' N.$, long. $63^{\circ} 39' W.$; 83 fathoms; bottom temperature, $1.8^{\circ} C.$; gravel, stones.

Station 142. December 18, 1873. Lat. $35^{\circ} 4' S.$, long. $18^{\circ} 37' E.$; 150 fathoms; bottom temperature, $8.3^{\circ} C.$; sand.

**Schizaster japonicus* (Pl. XXXVI. figs. 8-13; Pl. XLIII. fig. 26; Pl. XLV. figs. 7-10).

Schizaster japonicus, A. Agassiz, 1879, Proc. Am. Acad., vol. xiv. p. 212.

In this species the posterior lateral ambulacra (Pl. XXXVI. fig. 11) form a more acute angle with the longitudinal axis than in *Schizaster ventricosus*; it has also a very distinct latero-anal fasciole (Pl. XXXVI. fig. 12), a smaller anal opening, and a more pointed posterior extremity. A prominent keel in the median posterior interambulacrum forms a high crest at that end of the test (Pl. XXXVI. fig. 12), while *Schizaster ventricosus* is remarkable for its comparatively flattened and rounded posterior extremity (Pl. XXXVI. figs. 1, 3).

The ambulacra are all more deeply sunken, much as in *Schizaster canaliferus* and *Schizaster fragilis*. The test is highest immediately behind the apical system in the odd interambulacrum (Pl. XXXVI. fig. 12). These characters are early developed, as a comparison of young specimens of *Schizaster ventricosus* and *Schizaster japonicus*, measuring respectively one-third and half an inch in length, readily shows. The peripetalous fasciole is broad, and made up of triangular-shaped bands at the angles, and especially at the points in the median ambulacral spaces; it runs nearly straight across the odd interambulacrum from the extremity of the posterior petals.

There are two large genital openings in the posterior lateral ambulacra and a minute one in the left anterior one, while in *Schizaster ventricosus* these three are equally developed (see Revis. Ech.). The apex is also more central in this species, and the peripetalous fasciole less angular than in *Schizaster ventricosus*. The lateral fasciole (Pl. XXXVI. fig. 12) extends under the anus, it is narrow and sharply marked; the posterior ambulacra are proportionally wider, the outline more angular, the test swollen, and pointed at the posterior extremity when seen from above (compare Pl. XXXVI. figs. 11 and 12).

This form of *Schizaster*, and such forms as *Moiropsis claudicans*, readily pass on the one side into *Moira*, with its still more deeply sunken ambulacral plates, and comparatively ovoid and angular test, and into those fossil species of *Schizaster*, which have generally been associated with *Linthia*.

It is interesting to note with reference to the development of the fascioles, that in a young specimen measuring 12 mm. in length the lateral fasciole is indistinct near its