

9. *Asterias cunninghami*, Perrier.

*Asterias Cunninghami*, Perrier, 1875, Révis. Stell. Mus., p. 75 (Archives de Zool. expér., t. iv. p. 339).

*Localities*.—Station 313. Near the Atlantic entrance to the Strait of Magellan. January 20, 1876. Lat. 52° 20' 0" S., long. 67° 39' 0" W. Depth 55 fathoms. Sand. Bottom temperature 47°·8 Fahr.; surface temperature 48°·2 Fahr.

Station 315. Port William, Falkland Islands. January 26, 1876. Lat. 51° 40' 0" S., long. 57° 50' 0" W. Depth 12 fathoms. Sand, gravel. Surface temperature 50°·0 Fahr.

B. *Asterias sulcifera* group : Subgenus COSMASTERIAS, nov.10. *Asterias (Cosmasterias) tomidata*, n. sp. (Pl. CV. figs. 8–10).

Rays five.  $R = 92$  mm.;  $r = 19$  mm.  $R < 5r$ . Breadth of a ray near the base, 21 mm. Larger examples are in the collection, which measure about  $R = 110$  mm., but are too much contorted in their present state for careful measurement.

Rays elongate, robust, inflated, tapering gradually from the base to the pointed extremity, which is rather attenuate. Disk rather small, more or less inflated, with deep contracted sulci on the outer part of the median interradial lines, the rays appearing closely crushed together at their base, and causing the disk to seem smaller than is really the case. At the base of the ray there is sometimes a transverse depression, emphasising the distinction of disk and ray. The interbranchial arcs are acute.

The abactinal area is covered with rather small plates, amongst which five regular longitudinal series may be defined, and two less regular series on each side of the median radial series. The median radial series forms a slightly raised rib which proceeds from the disk to the extremity, and each of the plates bears three or four small, short, truncate spinelets, with crowded membranous vesicles at their base. These spinelets are not definitely arranged, although their general disposition forms an irregular transverse series. Small isolated forcipiform pedicellariæ are present with each group. On the small plates which succeed the median radial series there are not more than one or rarely two spinelets, and small isolated forcipiform pedicellariæ. Owing to the small size and the irregularity in position of these plates, the spinelets in this region have a tendency to form an indistinct reticulation. The plates of the two succeeding series, which form regular longitudinal lines along the ray, may bear two or three spinelets, accompanied by isolated forcipiform pedicellariæ. Between the outermost series of these plates and the adambulacral plates there are at the base of the ray about four longitudinal series of small contingent plates, which bear larger and more robust spines than elsewhere on the test. At the base of the ray these actinal spines form transverse series of four, but doubling is not unfrequent, and the arrangement shows a tendency to fall into oblique pairs; and on the