

from the adoral point of the united mouth-plates, which becomes in consequence rather conspicuous. Immediately behind, or aboral to the mouth-spines proper, is a single superficial or secondary mouth-spine, smaller than the long mouth-spines. The three mouth-spines of each plate are webbed together by a semitransparent membrane deeply indented between; and the secondary spine is united to the innermost spine by a continuation of the web. The long innermost spines are directed towards the centre of the mouth, where they almost meet, the other spines radiating slightly outward from this. The first, or most adoral, comb-series forms a widely expanded semicircular fan, the web being continued and attached to the prominent aboral peak of the mouth-plates.

The actino-lateral spines are robust, but short; the character of the fringe is destroyed, but probably was more or less distinct along the rays; the spines do not reach to the margin in the interbrachial arc, but are merged in the membrane of the actinal floor. The margins of the rays and disk are well-rounded and regularly covered with the intrapaxillar tissue continuous from the disk; indeed the greater part of the actinal portion of the interradiial space has the paxillate character of the abactinal surface.

*Locality*.—Station 299. Off the western coast of South America, between Valparaiso and the Island of Juan Fernandez. December 14, 1875. Lat. 33° 31' 0" S., long. 74° 43' 0" W. Depth 2160 fathoms. Blue mud. Bottom temperature 35°·2 Fahr.; surface temperature 62°·0 Fahr.

### Genus *Calyptraster*, Sladen.

*Calyptraster*, Sladen, Journ. Linn. Soc. Lond. (Zool.), 1882, vol. xvi. p. 207.

Form depressed. Marginal contour pentagonal. Abactinal area plane. Actinal area convex.

Supradorsal membrane very delicate, perfectly transparent. No muscular fibrous bands. Spiracula present. No spicules. Paxillæ with short, robust spinelets (five or six in the type species), usually flaring at the extremity, crown widely expanded, not protruding through, or even elevating the membrane, simply supporting it.

Adambulacral armature forming transverse combs of spines; the spinelets being perpendicular in position, and webbed together. Segmental apertures present. Aperture papillæ not free, opening laterally only.

Mouth-plates with two or three pairs of superficial or secondary mouth-spines on the actinal surface of the plates. Mouth-spines proper two, or occasionally three.

Actino-lateral spines merged in the actinal floor. No independent lateral fringe.

*Remarks*.—This genus is established for the reception of a very elegant little form which presents certain resemblances to *Hymenaster* and also to *Pteraster*. It resembles *Hymenaster* in the absence of a marginal fringe and in the merging of the actino-lateral spines in the actinal floor, and resembles *Pteraster* in having the armature of the adam-