

two or three pairs of much smaller papilliform spinelets, the outermost pair being very little larger than the spinelets on the actinal intermediate plates. Sometimes the disposition of the spinelets on the actinal surface is slightly oblique. The character of the arrangement of the armature as described above extends to the extremity of the ray.

The actinal intermediate plates are small and regularly arranged. Each plate bears a papilliform group of five to eight spinelets, which are subequal in size and radiate slightly apart. The groups or papillæ are comparatively closely crowded, which gives a compact and well-filled character to the actinal interradial areas.

The madreporiform body is scarcely visible: it appears to be normally hidden by the surrounding papillæ.

The anal aperture is rather large and slightly excentric in position.

No pedicellariæ are present.

Colour in alcohol, a dirty ashy grey with a slightly yellowish tint.

Young Phase.—There is a small example ($R=16$ mm., $r=7.3$ mm.) which accords so closely in general character, that I feel little doubt about its belonging to this species. The character of the abactinal papillæ and the armature of the adambulacral plates are the same as in the adult form described above, and readily distinguish it from an equally young example of *Cycethra electilis*. It is to be remarked, however, that the rays in the young *Cycethra nitida* are much shorter, broader, and flatter than in the adult, recalling in these particulars the appearance of *Cycethra electilis*.

This young example is interesting in having in two of the mouth-angles a lineal series of four or five spines on the outer part of the actinal surface of each of the mouth-plates; the two series on a companion pair of mouth-plates are apposed to one another, and appear to form a pedicellaria-like organ, resembling to a certain degree those found in *Pararchaster* and some species of *Pontaster*.

Locality.—Station 313. Off Cape Virgins, eastern coast of South America, near the Atlantic entrance to the Strait of Magellan. January 20, 1876. Lat. $52^{\circ} 20' 0''$ S., long. $67^{\circ} 39' 0''$ W. Depth 55 fathoms. Sand. Bottom temperature, $47^{\circ} \cdot 8$ Fahr.; surface temperature, $48^{\circ} \cdot 2$ Fahr.

Remarks.—This species is readily distinguished from *Cycethra electilis* by the longer, narrower, and semi-cylindrical rays, by the numerous and comparatively compactly grouped spinelets in the abactinal papillæ, by the small marginal plates, by the different arrangement of the armature of the adambulacral plates, and by the closely packed spine-groups of the actinal interradial areas. The facies of the two forms is quite different.

3. *Cycethra pinguis*, n. sp. (Pl. LXI. figs. 1 and 2; Pl. LXII. figs. 8 and 9).

Rays five. $R=100$ mm.; $r=33$ mm. $R=3r$. Breadth of a ray between the sixth and seventh infero-marginal plates, 24 mm.; breadth about midway between the base and the extremity, 11.5 mm.