

No pedicellariæ of any kind are present.

Colour in alcohol, a yellowish or ashy grey, with a tendency to a dirty light brown shade.

Localities.—Station 303. Off the western coast of South America, off the Chonos Archipelago. December 30, 1875. Lat. $45^{\circ} 31' 0''$ S., long. $78^{\circ} 9' 0''$ W. Depth 1325 fathoms. Blue mud. Bottom temperature $36^{\circ} 0$ Fahr.; surface temperature $54^{\circ} 8$ Fahr.

Station 311. Off the entrance to Smyth Channel. January 11, 1876. Lat. $52^{\circ} 45' 30''$ S., long. $73^{\circ} 46' 0''$ W. Depth 245 fathoms. Blue mud. Bottom temperature $46^{\circ} 0$ Fahr.; surface temperature $50^{\circ} 0$ Fahr.

Remarks.—This species bears a very close resemblance to *Mimaster tizardi* of the North Atlantic, but is readily distinguished by a number of points. The rays are more elongate and distinctly narrower at the base, and are fuller and more swollen abactinally, which gives them a distinctly subcylindrical appearance. The paxillæ are of a more radiating and stellate character, instead of compact, as in *Mimaster tizardi*; and the difference in size between the regularly and irregularly disposed paxillæ, noticed in *Mimaster cognatus*, is not discernible in the Atlantic form. The great diminution in the size of the supero-marginal plates and the increase in that of the infero-marginal plates, and their consequent general character and posture, constitute a remarkable difference in *Mimaster cognatus*. The armature of the adambulacral plates is simpler, and the actinal interradial areas are less extensive. The madreporiform body is large and exposed in *Mimaster cognatus*, whilst it is completely hidden in *Mimaster tizardi*.

A very interesting feature may here be noticed. In the abactinal skeleton of *Mimaster cognatus* the plates at the sides of the ray (*i.e.*, the bases of the paxillæ) are cruciform, with four prolongations, nearly at right angles; whilst those of the intermediate median space of the ray are stellate, usually with five points. In *Mimaster tizardi*, on the other hand, all are stellate or substellate, and those in the median area of the rays are less definitely stellate than the lateral ones, the difference being well marked.

Family ANTHENEIDÆ, Perrier, 1884.

I have followed M. Perrier in recognising this small group of forms as an independent family. Although the Antheneidæ stand clearly apart, the characters upon which their claim to family rank is based are, perhaps, somewhat artificial, or in other words, are less well defined than is the case in the allied families. Notwithstanding this circumstance, it seems to me a better course to regard them as a distinct family than either to place them as a sub-family of Pentagonasteridæ, or to separate the genera and apportion them to the families to which they have the closest superficial resemblance.