

apex, and armed before and behind with several marginal setæ or spines. Copulative organs of the male very large and narrow.

The foregoing descriptions of family and genus are borrowed from the work of G. O. Sars on the Norwegian marine Ostracoda. I have myself had no opportunity of seeing the recent animal, all the specimens that have come under my notice having been empty shells. It is at once apparent from the definition of the genus that we have here an animal presenting a type of structure quite different from that of the preceding families, in the conformation of the posterior antennæ approaching the Copopoda, and in that of the mandible-palps and first pair of jaws showing a likeness to the Sididæ. The mode of life of the animal and the manner in which the various limbs are used have not yet been observed.

Many species of fossil *Cytherellæ* have been described, ranging from the Cretaceous (doubtfully from the Carboniferous) to the Tertiary formations; and judging from our present knowledge of the genus, we should be disposed to say that it had attained its greatest development in the Cretaceous epoch, and is perhaps now dying out. But much further observation is required before this can be affirmed with certainty.

The characters of the shells are such as to render generic reference usually a very easy matter. The very unequal valves with the peripheral groove on the right side, the usually distinct cuneate form of the shell, and the pinnately-arranged muscle spots, are marks not to be found in any other group. Many detached valves of *Cytherellæ* were noticed in various dredgings, which it has been impossible to determine specifically.

1. *Cytherella polita*, G. S. Brady (Pl. XLIII. fig. 5, *a-c*, and Pl. XLIV. fig. 1, *a-g*).

*Cytherella polita*, Brady, Les Fonds de la Mer, p. 161, pl. xix. figs. 5-7.

Shell of the female, as seen from the side, subelliptical, height equal to about two-thirds of the length; extremities nearly equal and well rounded, dorsal margin forming a regular flattened arch, ventral nearly straight; seen from above, the outline is ovate-cuneate, widest near the hinder extremity, obtusely pointed in front, broadly rounded behind, width equal to half the length; end-view broadly oval. Surface of the shell perfectly smooth and polished. Length, 1-31st of an inch (.78 mm.).

The form shown in figures *e-g* is doubtless the male of this species, the points in which it differs from figures *a-d* being just those which are usually characteristic of the sexes.

The type-specimens of *Cytherella polita* were found at Port-au-Prince, West Indies. Those found in the Challenger dredgings are from the following localities:—Wellington Harbour, New Zealand, in tow-net at trawl; mouth of Rio de la Plata, 13 fathoms, mud (Station 321).