

Family II. AMPHITRETIDÆ, n. fam.

Amphitretus,¹ Hoyle.

This genus possesses the character, unique amongst Cephalopoda, of having the mantle fused with the siphon in the median line, so that there are two openings into the branchial cavity, one on either side, whence the name.² Since only one species is at present known, it is unnecessary to give a more detailed generic diagnosis.

Amphitretus pelagicus, Hoyle (Pl. IX. figs. 7-9).

1885. *Amphitretus pelagicus*, Hoyle, Diagnoses I., p. 235.

1885. " " Hoyle, Narr. Chall. Exp., vol. i. p. 271, fig. 106.

1885. " " Hoyle, Prelim. Rep. I., p. 113, woodcut.

Habitat.—Station 170, off the Kermadec Islands, July 14, 1874; lat. 29° 55' S., long. 178° 14' W.; 520 fathoms; volcanic mud. One specimen, sex (?).

The Body is short, rounded, of gelatinous consistency, and semitransparent. The mantle adheres to the sides of the siphon, so that the *mantle-opening*, which is single in all other known Cephalopods, is here divided into two pocket-like openings, which lie one beneath each eye, and extend less than halfway to the *siphon*, which is very long and narrow, and extends forwards anteriorly to the margin of the mantle, for a distance almost equal to the length of the body, and is a little swollen at the extremity.

The Head is indistinguishable from the body, except by the possession of the *eyes*, which are situated near together on the dorsal surface; they consist of a larger basal spheroid, through the walls of which pigment is clearly visible, upon which stands a smaller very prominent spheroid, white, opaque, and of glistening surface.

The Arms are equal, and rather more than twice as long as the body; they are slender, and taper at first gradually and then more rapidly to comparatively blunt points. The *umbrella* extends more than two-thirds up the arms, and is thin, delicate, and transparent (much damaged in the present instance). The *suckers* are firm, muscular cups embedded in the softer tissue of the arms, as in *Cirroteuthis*; there are about twelve placed at some distance apart on that portion of the arm up which the web extends, and eleven closely set, and showing a tendency to biserial arrangement on the free extremities. There are no *cirri*, nor is there any trace of the formation of a *hectocotylus*.

¹ ἀμφίρετρος, with double entrance.

² Functionally, if not structurally, this arrangement may be compared with the median septum which is found in the branchial cavity of *Octopus*, *Eledone* and other genera, and is seen carried almost to the margin of the mantle in *Alloposus mollis*, Verrill (Ceph. N. E. Amer., pl. I. figs. 1, 2).