

? North Pacific, off Volcano Island, April 3, 1875; about lat. 24° 49' N., long. 138° 34' E.; surface. Three specimens.

? North Pacific, near the same locality, April 5, 1875; surface. One specimen.

Gulf of Mexico, Gulf Stream, "amongst fuci" (Lesueur), North Atlantic, surface (Owen), Atlantic Ocean (d'Orbigny, Steenstrup).

The specimens marked with a query are small and badly preserved, so that their identification is by no means certain; some doubt is also thrown upon it by the fact that the species has not hitherto been found except in the Atlantic, but in a creature of such pronounced pelagic habit much stress need not be laid upon this.

Owen's figure of the whole animal is very good, but no satisfactory drawing of the club appears yet to have been published, so I give one of it.

The tentacular club (fig. 1) is only slightly expanded, but has a broad web along its distal half. On the proximal portion ("wrist" of various authors) it bears a group of seven to nine suckers, and the same number of fixing cushions, beyond which are four series of hooks and suckers, the latter being situated along the margins, the former in the centre. The first transverse row contains suckers only, the second has two suckers outside, and between them two whose horny ring shows an early stage of hook formation (fig. 4). The hook becomes gradually more prominent (fig. 5), and is best marked in the sixth and seventh rows, where they have the form shown in the drawings (figs. 6, 7). The muscular part entirely covers the horny part of the hook in all those specimens, even the point being protected by a sort of membranous hood (fig. 7), but by mounting in Canada balsam they become quite transparent, and the outline of the hook itself shows clearly through.

There are about eight rows of hooks, beyond which the club bears three (or four?) irregular rows of minute suckers (fig. 3), whose horny ring bears five long acute teeth. The large marginal suckers (fig. 2), have four or five long pointed teeth, and a papillary area with two rows of spinous papillæ. In the specimen figured the flexible floor of the sucker intrudes very far into its cavity.

Subfamily GONATIDÆ, nov.

Gonatus, Gray, 1879.

Sepia loligo, Fabricius.

Onychoteuthis, Lichtenstein, Møller, Middendorff.

Owenia, Prosch (*pars*).

Lestoteuthis, Verrill (*pars*).

Cheloteuthis, Verrill.