

and there can be no dubiety in regard to their habitat, viz., on the sea-bottom. About a third of the species obtained by the Challenger are abyssal. Thus, besides the form mentioned, *Maldane malmgreni* inhabits 1525 fathoms, *Maldanella antarctica* ranges from 1260 to 1950 fathoms, and at the latter depth is also *Praxilla abyssorum*. *Maldanella valparaisiensis* frequents the great depth of 2225 fathoms, and another of the same genus, *Maldanella neo-zealanica*, descends to 1100 fathoms.

In the previous voyages they had not been found at great depths. Thus Kinberg's series of twelve belongs to the shore or comparatively shallow water, though ten are new. Schmarda's two species were procured between tide-marks at the Cape of Good Hope. Only a single form occurs in Grube's Annelids from the "Gazelle," and one from the Philippines, and there is nothing noteworthy in either habitat. Sars found both *Maldane* and *Clymene* range to 300 fathoms. From the "Porcupine" expedition, again, Ehlers had six species, one of which reached the depth of 1443 fathoms.

In regard to food, no group shows more strikingly the value of Diatoms, Radiolarians, and Foraminifera as the original food-producers for fishes and the higher forms. These groups constitute the chief nourishment of the deep-sea and many other Annelids, and the majority would seem to have lived on the spot where they have been swallowed, to judge from their appearance in the alimentary canals of the Annelids.

The discrimination shown by this family in the formation of their tubes is at once apparent on contrasting the mud swallowed as food with that composing the tube. Almost invariably the latter is coated with the coarser Foraminifera, the larger Radiolarians, and the rougher sand-particles, and this even in instances where there would have been no obstacle to the admission of the one as well as the other into the buccal orifice.

In the diagnosis of species it would have been very difficult to apply Prof. Grube's method of calculating the number of the bristle-bearing segments, since only fragments as a rule were brought up by each haul of the dredge or trawl. Considerable reliance, however, can be placed on the structure of the hooks and other points.

The genera have a wide distribution.

Maldane, Grube.

Maldane sarsi, Malmgren.

Habitat.—Dredged at Station 232 (south of Yedo, Japan), May 12, 1875; lat. 35° 11' N., long. 139° 28' E.; depth, 345 fathoms; bottom temperature 41°·1, surface temperature 64°·2; sea-bottom, green mud.

The specimens are comparatively small when contrasted with the Canadian examples of the species. The only complete one measures about 48 mm., with a diameter of 1·5 mm. at its widest part.

¹ Jahrb. d. Schles. Gesellsch., Breslau, 1868, December 18; also *Ann. and Mag. Nat. Hist.*, ser. 4, vol. ii. p. 393, 1868.