

side), shells and stones. Conspicuous amongst the shells are a rare *Dentalium*, *Aporrhais*, *Bulla*, *Terebratula*, and the long valve of a Cirriped, resembling the tooth of an *Echinus*. The first-mentioned appropriately forms the tail. The smooth surface of the tube with the spatangoid spines projecting at right angles seems to have lain on the bottom, while the dorsal and lateral surfaces are protected by the comparatively large shells and stones.

In the intestine of the antarctic form are masses chiefly composed of the chitinous cuticle of small Crustacea with various appendages enveloped in Pteropod ooze. In the alimentary canals of those from the Atlantic, foraminiferous mud and cellulo-granular debris of a pale olive colour occurred.

Transverse sections of the anterior third of the body-wall of a large example (Station 156) present great dilatation of the alimentary canal, and the ventral longitudinal muscles are much flattened. The nerve-cords also form a thin band in the obtuse angle over the commissure of the oblique muscles. So great is the development of the circular muscular coat over the dorsal region that it is in many sections as thick as the dorsal longitudinal, and the contrast between the two arches (dorsal and ventral) is thus striking, for the circular layer forms but a thin band inferiorly. The body-wall is less stretched in the specimens from Station 156, and the nerve-area proportionally larger (the Annelids being considerably less); but the general features are the same. As in *Nothria conchylega*, the dorsal longitudinal muscles are pierced by the vertical fibres, often in a somewhat symmetrical manner. No neural canal is visible in this or the first-mentioned preparation, but neither is in a very satisfactory state.

The absence of the branchiæ in this species is remarkable. It would seem, however, that the comparative length of these organs in other members of the group is subject to considerable variation, a fact of moment in examining into the specific differences of such forms as Hansen's *Nothria hyperborea*,<sup>1</sup> which some think is a mere variety of *Nothria conchylega*.

*Nothria pycnbranchiata*,<sup>2</sup> n. sp. (Pl. XL. figs. 13, 14, 15; Pl. XXIIA. figs. 4, 5).

*Habitat*.—Trawled at Station 298 (off the Chilian coast), November 17, 1875; lat. 34° 7' S., long. 73° 56' W.; depth, 2225 fathoms; bottom temperature 35°·6, surface temperature 59°·0; sea-bottom, blue mud.

The same form occurred in the trawl in equal numbers at Station 299 (between Juan Fernandez and Valparaiso), December 14, 1875; lat. 33° 31' S., long. 74° 43' W.; depth, 2160 fathoms; bottom temperature 35°·2, surface temperature 62°·0; sea-bottom, blue mud.

<sup>1</sup> Den norske Nordhavs-Exped., Bd. vii. p. 32, Tab. iv. figs. 5-13.

<sup>2</sup> πικνός, thick.