

The notopodial chaetae are in better condition than those of the type which I examined, the great majority of the latter being imperfect at their tips. Fully formed chaetae from the Canadian specimen are a little more than 3 mm. long, and well preserved ones exhibit along one side of their distal portion for a distance of about one sixth the length of the chaetae a narrow lamina, but this does not reach the tip of the chaetae and its maximum width is not more than 6μ . On the margin opposite the lamina, and all round the terminal portion of the chaetae, are fine spines closely pressed to the shaft. The chaetae are similar to those of *A. marina*, except that the lamina is not so well developed and the spines are rather more slender than in most examples of *A. marina*; but specimens of the latter from different localities exhibit some variation in the spines of their chaetae.

The neuropodia are elongate in the posterior segments; owing to a certain amount of maceration their crotchets have fallen out and are not available for examination.

The nephridia correspond in number and in position with those of the type. The funnel of the first nephridium lies on the anterior face of the third septum. The funnels are not in good preservation, but they are apparently similar to those of *A. marina*. In Fig. 47 (1912) the funnel of the first nephridium should have been shown directed forwards and not medially.

The oesophageal glands—a single pair—are elongate cones about 7 mm. in length.

The septal pouches are about 2 mm. long and resemble those of *A. marina*. They are rather wider than those of the type specimen shown in Fig. 17 (1912); they give the impression by their wrinkled surface that the wall is somewhat contracted, whereas those of the type figured appear to have been more fully extended.

The three septa which cross the coelom at the anterior border of the first, third and fourth chaetiferous segments of all species of *Arenicola* are well developed in this specimen.

The left antero-dorsal wall of the peristomium was excised and cut into serial sections for a study of the statocyst. The lumen of the statocyst is conical about $160 \times 150 \times 90\mu$ in its three greatest diameters, and is continued into a tube which leads to the exterior. The lumen of the tube is narrow; in section it is an oval slit whose shorter diameter at one point is reduced to 1μ . The statoliths (about 50 in number) are small sand-grains, the largest 25μ in diameter. Most of the grains are naked, but a dozen have a distinct envelope of secreted material, a common condition in statocysts of *Arenicola* in which the connection of the tube with the exterior has become obstructed.

The specimen from Bernard harbour thus conforms fully to the diagnosis drawn up from the fragile types, except that the gill-axes are longer than those of the type specimens, but this is due in part to post-mortem maceration and elongation. The discovery of this example of *A. glacialis* extends the range of the species a thousand miles east of the only previously known locality, and suggests the inference that the species occurs along the whole stretch of the arctic shore of northwest America. It would be interesting to know how much further eastwards *A. glacialis* extends and whether its distribution overlaps that of *A. marina*. The nearest localities from which the latter species has been recorded are to the east—the west coast of Greenland (e.g., Godhavn, Umanak, Proven) and Rigolet, Labrador, while to the west the nearest definite locality¹ is Cape Ragozin in the Kara Sea, where a single specimen of *A. marina* was obtained (Wirén, 1883).

¹ Grube (1851) recorded under the name *A. marina* a single specimen collected by Middendorff during his journey "in den nussersten norden-osten-sibirien," but no definite locality was given. Grube stated that this example was about two inches in length and possessed only eighteen chaetiferous segments and twelve pairs of gills. These numbers are not normal for any species of *Arenicola*, and the worm may have been an example of *A. marina* or of *A. pusilla* with one segment less than usual, or of *A. glacialis* with one segment more than usual. The specimen is not preserved in the Berlin Zoological Museum (where much of Grube's material is to be found), and enquiries for it elsewhere have been fruitless, so that it is impossible to state to which of the three species named this specimen really belongs.