

merit the name of lamellæ (like those in the ruminant's "manyplies"). The canal then bends upward (from the posterior pit) and forms a kind of pylorus, with thick walls and bold longitudinal furrows, and terminates in the intestine, into which the part freely projects like a long os uteri into a vagina. The thick rugose intestine, which agrees in structure with that in the ordinary Annelids, terminates in a dorsal anus, with two styloid processes, of the usual shape, at the sides inferiorly. None of the specimens presented developed generative organs, which in the British examples from Herm are in full maturity in August. Claparède mentions that they originate at the bases of the feet.

So far as structure shows, the animal would appear to evert its lingual organ and apply it with a rasping action to the surface of the sponge, the successive pieces being crushed against the firm rugose wall behind by the hardened posterior surface of the tongue, and again subjected to the action of the deeply folded or lamellar region behind it. Thus, before the (especially soft tissues like those of sponges) food reaches the intestinal surface, it has been partially disintegrated and fitted for absorption. Minute shells of *Spirorbis* are of course less affected, though many are broken into fragments, and all are in a condition to give up their contents. Like the British *Euphrosyne foliosa* at Herm, the South African form would seem to browse on the patches of *Halichondria* and other sponges which abound under stones between tide-marks; and there is little wonder therefore that there should be so many interesting homologies between its buccal apparatus and that of such Nudibranchs as *Doris tuberculata* and *Doris johnstoni*, which follow precisely similar habits.

*Euphrosyne borealis*, CErsted (Pl. I. figs. 2, 3; Pl. IA. figs. 4-6).

*Euphrosyna borealis*, CErsted, Grönl. Ann. Dorsibranch., p. 18, Tab. II. figs. 23-27.

*Euphrosyne borealis*, Auctorum.

*Habitat*.—A small example apparently referable to the foregoing occurred at Station 49 (off Halifax), May 20, 1873, lat. 43° 3' N., long. 63° 39' W.; depth, 85 fathoms; bottom temperature 35°·0, surface 40°·5; gravel and stones.

*Observations*.—The specimen agrees in external appearance with the Norwegian form—the smooth dorsal bristles projecting far beyond the branchiæ, and giving the back a very hirsute appearance. The serrated bifid dorsal bristles (Pl. IA. fig. 4) are strongly marked; and it is to be observed that when viewed antero-posteriorly they are also bent laterally. The ventral bristles present rather an elongated tip beyond the spur, and the edge above the latter is often marked by a series of irregularly placed serrations—two varieties being shown in Pl. IA. figs. 5, 6. Each of the processes at the tip has its internal canal. Some of the stronger bristles have the terminal portion less bent than