

whole length; posterior lobe short, pointed behind and nearly concealed when the anterior lobes fall back against one another. In some specimens from Behring Strait, the posterior lobe is so short that it is only distinguished by a small undulation from the anterior lobes. Fins nearly triangular in shape, pointed at their free extremity.

Penis very long, bifid towards its base, and formed of a short lateral branch and a long posterior one.

Buccal Appendages.—Three pairs of contractile cones, symmetrically inserted on the wall of the anterior part of the digestive tract, so that they occupy the whole circumference of this part. At the median base of these cones the digestive tract is contracted into a pad, so that it forms a pair of false "lips."¹ The dorsal pair of cones are the longest and the ventral the shortest. When they are expanded, these organs are very long; their surface is covered with granulations visible with a magnifying glass. (These appendages contain special nervous terminations and glandular follicles.²) Behind the false lips is the short evaginable portion of the digestive tract or proboscis.

Radula.—Its formula varies with the size of the specimen. Therefore Krause gives 6:1:6 or 7:1:7,³ Sars 8:1:8,⁴ Loven 12:1:12,⁵ and Boas 14:1:14,⁶ &c. It is easy to find all these formulæ and the intermediate ones when examining specimens of various lengths. In specimens of large size which I have examined, I have found the same formulæ as Loven and Boas, or the intermediate one (13:1:13).

Hook-sacs of moderate length, with hooks of various sizes, regularly decreasing from the bottom of the sac to the edge, slightly bent (the larger less than the small) and assuming a fan-like arrangement when the sac is evaginated.

Colour.—Transparent; in the living animal the extremities are coloured bright red; the visceral mass (liver) is brownish-violet.

Length.—The largest specimens measure 35 to 40 mm.

Habitat.—*Clione limacina* is found in all the seas around the North Pole; Kara Sea; Nova Zembla; Waigatz Straits; White Sea; Spitzbergen; Norwegian coast—Finmark and Lofoten Islands to Karmoe Island (lat. 59° N.); Kattegat, Bohuslän; Island of Mull; west of Hebrides (lat. 59° N., long. 10° W.); Jan Mayen Island; Iceland; Coasts of Greenland; Baffin Bay; Davis Strait; Hudson Strait; Labrador; Newfoundland; Arctic Ocean, Alaska, Cape Lisburne; Behring Strait and Sea; Aleutian Islands (Akutan Pass); North Pacific, lat. 81° 80' N., long. 161° 26' W.).

The most northern point where *Clione limacina* was observed is lat. 81° 40' N. (Ross); the southern limit of its geographical distribution nearly corresponds to the isothermal

¹ Pelsener, The Cephalic Appendages of the Gymnosomatous Pteropoda, *loc. cit.*, pl. xxxv. fig. 4, d.

² See my paper on this subject, *loc. cit.*, pp. 495-500.

³ Ein Beitrag zur Kenntniss der Mollusken Fauna des Berings Meeres, *Archiv f. Naturgesch.*, Jahrg. li. p. 299.

⁴ Bidrag til Kundskaben om Norges arktiske Fauna, I., Mollusca Regionis Arcticæ Norvegiæ, pl. xvi. fig. 21, f.

⁵ Om tungans bevåpning hos Mollusker, *Öfversigt k. Vetensk. Akad. Handl.*, 1847, p. 188, pl. iii.

⁶ *Spolia atlantica*, p. 162.