

Taonius hyperboreus, Steenstrup (Pl. XXXII. fig. 12; Pl. XXXIII. figs. 1–11).

1856. *Leachia hyperborea*, Stp., Hectococtyl., p. 200.
 1861. *Taonius hyperboreus*, Stp., Overblik., p. 83 (*non* Verrill).
 1870. *Leachia ellipsoptera*, Carpenter, Jeffreys and Thomson, Proc. Roy. Soc. Lond., vol. xviii. p. 423.
 1879. *Loligopsis hyperborea*, Tryon, Man. Conch., vol. i. p. 162.
 1882. *Desmoteuthis tenera* (?), VII., Ceph. N. E. Amer., p. 412, pl. lv. fig. 2; pl. lvi. fig. 3.
 1884. *Taonius hyperboreus*, VII., Second Catal., p. 245.
 1884. *Loligopsis hyperborea*, Rochebr., Monogr. Loligopsidæ, p. 12.
 1885. *Taonius hyperboreus*, Hoyle, Loligopsis, p. 321.

Habitat.—Station 50, South of Halifax, Nova Scotia, May 21, 1873; lat. 42° 8' N., long. 63° 39' W.; 1250 fathoms; blue mud. One specimen, ♂, probably from the surface.

North Atlantic, 140 miles north-west of the Irish Coast, July 2, 1869; lat. 56° 10' N., long. 13° 16' W.; surface ("Porcupine" Expedition). Two specimens.

North Greenland (Steenstrup). Off Martha's Vineyard, 87½ miles from Gray Head; 388 fathoms (?)¹; two specimens. Off the New England Coast, lat. 39° 27' 10" N., long. 69° 56' 20" W.; 1346 fathoms (?)¹; one specimen, Verrill.

The Body (fig. 1) is elongated, tapering posteriorly; the *mantle* is thin, enclosing an enormous branchial cavity, only a small portion of which is occupied by the viscera; its anterior border is transverse or projects slightly in the dorsal median line and at each lateral attachment; in the former of these positions the surface of the body is almost continuous with that of the head, only the very slightest fold of the mantle marking it off. The *fin* is about half the length of the body and of an elongated cordate shape, the form of the hinder margin being, however, slightly variable. The *siphon* is triangular, and reaches to about the centre of the head; on its dorsal wall, immediately behind the aperture, are two low cushion-like papillæ in the middle line, and behind these three long, pointed papillæ arranged in a triangle with the apex directed forwards.

The Head proper is small, much smaller than either of the enormous globular *eyes*, which occupy the whole of its two lateral surfaces.

The Arms are short, on an average about one-third the length of the body; their order of length is 3, 2, 1, 4; a toothed membrane extends along the arms, but forms only a very small web between them (fig. 12). They are furnished with two rows of suckers, most numerous and closely packed on the dorsal arms. The *suckers* (figs. 2–5) are subglobular, the proximal half of the globe being opaque and muscular, the distal corneous and semitransparent. The suckers on the dorsal and ventral arms are subequal, and also on the lateral arms for the proximal half of their length; on the third quarter are situated about eight large suckers, whose diameter fully equals that of

¹ The query is not intended to imply any doubt as to the accuracy of the observations, but merely as to whether the specimen was taken at the bottom.