

The walls, both of the expanded base and the pedicel, are composed of sand, sponge-spicules, or other foreign bodies, according to the nature of the sea-bottom and the material it affords. The extraneous matter of whatever sort is pretty uniformly distributed and firmly incorporated with calcareous cement, except just at the narrow end of the pedicel, where the test is left in a chitinous and to some extent flexible condition. Notwithstanding the variety of materials employed in the construction of the test, there is a manifest preference for siliceous spicules, and in localities where sponges abound, their long slender needles, either broken or entire, are selected for the purpose. Sometimes the whole exterior of the test, both disk and pedicel, is covered with spicula to the exclusion of sand-grains, as shown in one of Prof. Lankester's drawings (*loc. cit.*): it may be added, however, that the figure referred to is taken from a somewhat exceptional specimen. The selected spicula, whole or broken, are either incorporated in the same way as other foreign materials or are fixed by one end, leaving the remainder free and projecting; and they are generally found in the largest number about the distal end of the test. In some specimens, especially in those with a globular head, they stand out on all sides and at every angle; but in the typical clavate form of *Haliphysema tumanowiczii* they are more frequently all directed forwards, spreading but slightly, so that the broad end has the appearance of a little broom, as represented in the figures.

With respect to the geographical and bathymetrical distribution of *Haliphysema tumanowiczii*, I can add but little to what has already been published. The species appears to be at home in shallow water, from shore-pools or between tide-marks, to a depth of 20 fathoms (Kent), or 25 fathoms (Tumanowicz). The following localities, with two exceptions, are quoted from Dr. Bowerbank and Mr. Norman:—off Hastings (Tumanowicz); Berwick Bay (Johnstone); Cullercoats? (Alder); Torbay (Parfitt); Budleigh-Salterton (Carter); Jersey (Kent); Colwyn Bay (Siddall); Dublin Bay (Haddon); Bergen, Norway (Haeckel); "*Haliphysema primordiale*," Corsica (Haeckel); "*Gastrophysema dithalamium*," Smyrna (Haeckel).

*Haliphysema ramulosum*, Bowerbank (Pl. XXVII, A. fig. 6).

*Haliphysema ramulosa*, Bowerbank, 1864–1866, Monogr. Brit. Spong., vol. ii. p. 79,—vol. iii. pl. xiii. fig. 1.

„ „ Carter, 1870, Ann. and Mag. Nat. Hist., ser. 4, vol. v. p. 389.

*Squamulina scopula*, "branched variety," Carter, 1870, Ann. and Mag. Nat. Hist., ser. 4, vol. vi. p. 345.

*Haliphysema capitulatum*, Moebius, 1876, Tagsblatt d. 49, Versamml. d. deutsch. Naturforsch. in Hamburg, p. 115, No. 2.

„ *ramulosum*, Haeckel, 1877, Biolog. Studien, p. 193.

„ „ Norman, 1878, Ann. and Mag. Nat. Hist., ser. 5, vol. i. p. 275;—1882, in Bowerbank's Monogr. Brit. Spong., vol. iv. p. 38.

„ *tumanowiczii*, Moebius, 1880, Foram. von Mauritius, p. 72, pl. i. figs. 1–5; pl. ii. fig. 1.