

3. *Protriæne*, rhabdome 3·2 by 0·018 mm.; cladi 0·17 mm. long (Bwk.); rhabdome 5·4 by 0·013 mm.; cladi 0·15 mm. long, chord 0·084 mm. (Soll. C.).

4. *Anatriæne*, rhabdome 2·1 by 0·011 mm. (Bwk.), rhabdome 3·9 by 0·012 mm.; cladome subterminal, cladal centre 0·012 from the distal termination of the axis of the rhabdome cladi; 0·05 mm. long, chord 0·063 mm. (Soll. N.); rhabdome 11·4 by 0·02 mm.; cladome terminal, cladi 0·084 mm. long, chord 0·095 mm. (Soll. C.).

II. Microsclere. 5. *Sigmaspire*, 0·0095 mm. long (Bwk.), 0·012 mm. long (Soll. N.), 0·012 mm. long (Soll. C.).

*Habitat*.—The Island of Arran; Galway, Ireland (Bwk.); Shetland Isles, deep water (Bwk.); The Minch, deep water (Norman); Kors Fjord, Norway, 180 to 300 fathoms (Norman, Sollas); lat. 61° 0' N., long. 4° 49' E., 200 fathoms, bottom, ooze and clay, temperature 6°·6 C.; and lat. 72° 53' N., long. 21° 51' E., 223 fathoms, bottom, clay, temperature 1°·5 C. (Hansen); near the last mentioned locality, in 140 to 165 fathoms (Vosmaer); deep sea, between Færøe Isles and North of Scotland (Carter).

*Remarks*.—The initials (Bwk.) indicate measurements taken from Bowerbank's descriptions; (Soll. N.) measurements by Sollas of specimens dredged by Norman; (Soll. C.) measurements by Sollas of specimens described by Carter. None of these sets of measurements are accordant, except in the case of the cortical oxeads and the sigmaspires. The discrepancy is probably due to the spicules measured having been obtained from sponges of different size, thus Carter's are many times larger than Norman's specimens. As to the size of the specimens from which Bowerbank obtained his spicules we have no knowledge; it would be worth while to re-examine some of the three hundred specimens obtained by Bowerbank, with a view to determining the size of their spicules anew. Mr. Carter has kindly sent me mounted spicules of the specimen of *Craniella cranium* figured by Bowerbank as seated in *Phakellia ventilabrum*; these are of the largest size given in the preceding measurements. The spicules of *Tethya unca*, Bowerbank, have the same size as the larger ones of the foregoing descriptions, and it would seem just possible that the fact of their being about twice as long as those of *Tethya cranium*, as given in Bowerbank's published measurements, led him to distinguish between the supposed two species; on the other hand, he expressly states that the distinction rests on the smaller size of the sigmaspire in *Tethya unca*, and as, after an examination of specimens in the British Museum, I do not find even this difference to exist, I see no alternative but to include *Tethya unca* as a synonym of *Tethya cranium*.

Norman describes as *Tethya cranium*, var. *acufera*, specimens in which one-third of the rhabdus spicules are strongyloxeads. *Craniella zetlandica*, *Craniella abyssorum* and *Craniella infrequens* he also regards as varieties of *Craniella cranium*. Vosmaer's proposal to re-name this species appears superfluous. The fact that Müller's sponge, which appears to have been *Craniella cranium*, was erroneously identified as *Alcyonium cranium*, in