

ON A NEW DEEP-WATER TRACHYMEDUSA

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(Text-fig. 1)

In August and September 1959 a series of deep horizontal hauls with a 2 m stramin closing net were made on R.R.S. 'Discovery II' for Dr T. H. Waterman to study the vertical distribution of the larger plankton animals. The collections were made within the two areas $32^{\circ} 22' - 32^{\circ} 49' \text{ N.}$, $21^{\circ} 14' - 22^{\circ} 16' \text{ W.}$ and $37^{\circ} 28' - 37^{\circ} 56' \text{ N.}$, $11^{\circ} 59' - 13^{\circ} 46' \text{ W.}$

I have examined the medusae in these collections, and among them were eighty specimens of a trachymedusa which did not agree with any previously described species. I sent some specimens to Dr P. L. Kramp and he also was unable to identify them.

The medusa is *Aglantha*-like in shape and general appearance, but as its description will show it can be placed in the genus *Colobonema*. On account of its shape I am naming it *Colobonema apicatum* n.sp.

Most of the specimens were in a fair state of preservation. The umbrella is tall and cylindrical with a small apical process. The jelly is fairly thick; along the sides of the umbrella it is slightly thicker in the upper region becoming thinner as the margin is approached. The subumbrellar musculature is well developed. In the apical region of the umbrella (Fig. 1B) the flat circular area is devoid of musculature, as in *Pantachogon haeckeli*. In this respect it differs from *Colobonema sericeum* (see Russell, 1953, pp. 437, 441). Through this muscle-free area the eight radial canals can be seen running downwards along a very short conical peduncle to the centre of the stomach. The stomach, which is also very short, has four simple perradial lips, and seen from above its wall appears to be divided longitudinally into eight lobes (Fig. 1B). The ring canal and the distal portions of the radial canals are filled with fat globules.

The gonads cover the subumbrellar walls of the radial canals for about two-thirds of their length. No specimens still retain all eight gonads complete, but there are usually short pieces of gonad left attached at the proximal and distal ends (Fig. 1A). Sometimes a terminal portion is hanging loose and might be mistaken for a pouch.

The marginal tentacles all appear short and stump-like. They are probably broken off without their ectodermal covering, as they usually are in *C. sericeum*. In the latter species it was uncertain whether the short stumps represented the whole tentacle (Russell, 1953, p. 438), but I have now seen

specimens of that species with long thread-like tentacles which are very delicate and easily broken off.

In no specimen have I seen a complete number of marginal sense organs, but sufficient are present to show that typically there are sixteen, each separated by a pair of tentacles. They are typical free sensory clubs and each has a single concretion.

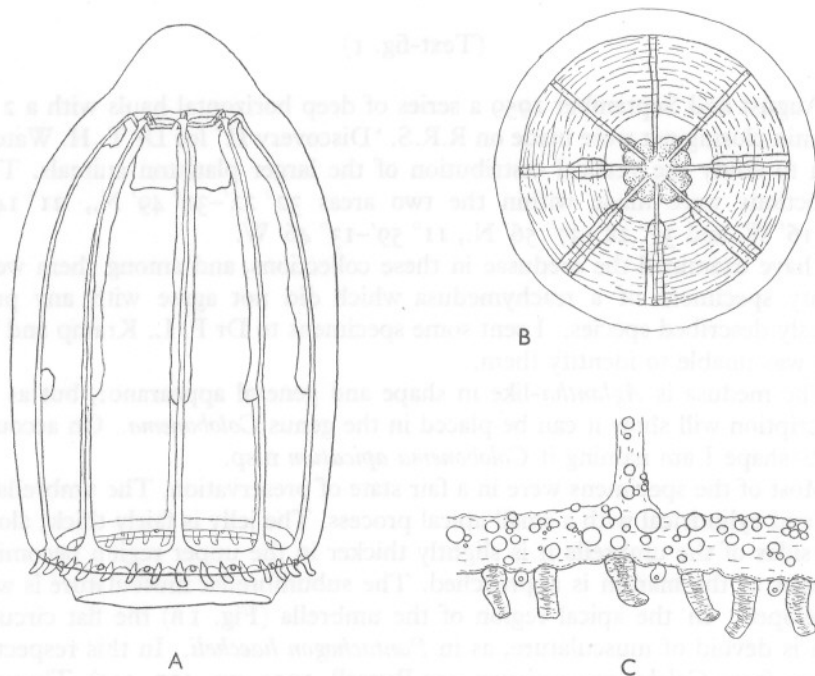


Fig. 1. *Colobonema apicatum* n.sp. A, Type specimen, 10 mm high; B, apical view of umbrella of type specimen showing area devoid of musculature; C, exumbrella view of umbrella margin of another specimen to show arrangement of marginal sense organs in relation to tentacles, and fat globules in canals; the velum is omitted.

I have chosen one of the largest and best preserved specimens as the type. This has been deposited in the British Museum and has the catalogue number B.M. 1960.11.20.1. This specimen is shown in Fig. 1A, B. The umbrella is 10 mm high, and 6.16 mm wide at its widest point and 5.83 mm wide at the umbrella margin. The height of the apical process is 1.7 mm. The jelly of the umbrella is 0.66 mm thick in the upper portion and 0.33 mm at the umbrella margin. The velum is 1.33 mm wide. The stomach, with peduncle, is 1.33 mm long. The gonads are 5.33 mm long; only four are intact. The marginal tentacles are 0.33 mm long.

The diagnosis of the species can now be given as follows, based on measurements of a number of specimens.

***Colobonema apicatum* n.sp.**

Umbrella deep cylindrical bell-shaped, with small conical apical process; width of bell somewhat more than half its height, velum broad and well developed. Stomach small, situated on very short peduncle, its length about one-sixth of umbrella height. Mouth with four simple lips. Eight straight narrow radial canals and ring canal. Eight narrow linear gonads, without folds, along almost the proximal two-thirds of radial canals. Thirty-two solid marginal tentacles. Sixteen marginal sense organs. Umbrella up to 10 mm in height. Whole medusa colourless, subumbrellar musculature iridescent.

VERTICAL DISTRIBUTION

An analysis of the vertical distribution of the species for those stations at which the medusae occurred is given in Table 1. It is evident that *C. apicatum* normally lives very deep in the water and that the majority occur below 1500 m. No differences in vertical distribution could be detected between day and night but the numbers of specimens were rather low to be conclusive.

TABLE 1

Depth (m)	No. of hauls	Total no. of specimens	Specimens/ hauls
650	2	—	—
830-890	4	—	—
970-1050	7	—	—
1100	1	—	—
1200-1290	6	5	0.8
1370-1450	8	7	0.9
1600-1690	6	33	5.5
1770-1850	6	35	5.8

SUMMARY

A new species of deep-water trachymedusa from the North Atlantic is described and named *Colobonema apicatum*. Most specimens occurred deeper than 1500 m.

REFERENCE

RUSSELL, F. S., 1953. *The Medusae of the British Isles*. Cambridge University Press.