

ON A NEW MEDUSA, *KRAMPELLA*
DUBIA N.G., N.SP.

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(Text-figs. 1 and 2)

In a collection made with a 2 m stramin ring trawl at 47° 03' N., 5° 47' W. on 4 July 1956, with 800 fathoms of wire out, I have found a new species of medusa. This specimen is in a comparatively good state of preservation except that the stomach is badly damaged.

The umbrella is hemispherical and the jelly is moderately thick. The form of the stomach cannot be described for certain. Parts of it are to be seen as narrow strips hanging down from the upper ends of three of the radial canals. One of these strips is continued for a short distance along the subumbrella surface towards the summit. It has the form of two short curtains with a space between them which leads into the radial canal. It thus seems quite possible that the stomach is in fact an open cross with mouth lips extending along each arm as in *Staurophora*.

The four radial canals are broad and there is a ring canal. Along each of the four radial canals there are about sixteen fine strands of tissue running through the jelly and connecting the walls of the radial canals with the exumbrella surface, similar to those I have recorded (Russell, 1956) in *Amphinema krampi*.

The gonads are situated along almost the whole length of each radial canal. They are widely divided longitudinally.

There are four perradial and four interradial marginal tentacles each with a swollen conical basal bulb. The tentacles coil spirally.

Between the bases of each pair of marginal tentacles there are three or four small marginal cirrus-like tentacles, the actual sequence being 3, 3, 4, 3, 4, 3, 4, 4.

No marginal vesicles, cordyli, or sense organs can be seen, and there are no ocelli apparent.

There is a little yellowish brown pigment on parts of the gonads and this colour is rather prominent on what appear to be the mouth lips. Otherwise the medusa is colourless. It is about 3 mm in diameter, and is a male.

A drawing of this medusa as seen from the subumbrellar side is given in Fig. 1*a*. A lateral view, drawn slightly ideally, is given in Fig. 1*b* in which the possible outlines of the stomach are indicated.

One quadrant of the medusa was removed for sectioning. Examination of these sections adds the following additional information.

The strands of the tissue running from the outer walls of the radial canals to the exumbrella surface consist of rows of cells which may be two or three thick in places (Fig. 2a). At some points there may be as many as three strands starting from approximately the same position on the radial canal, and

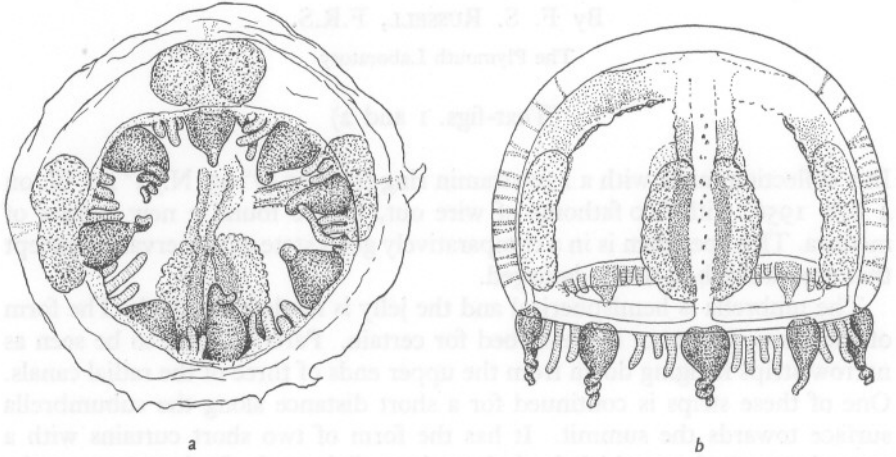


Fig. 1. *Krampella dubia* n.sp. a, viewed from subumbrellar side; b, lateral view slightly idealized, with suggested outlines of stomach.

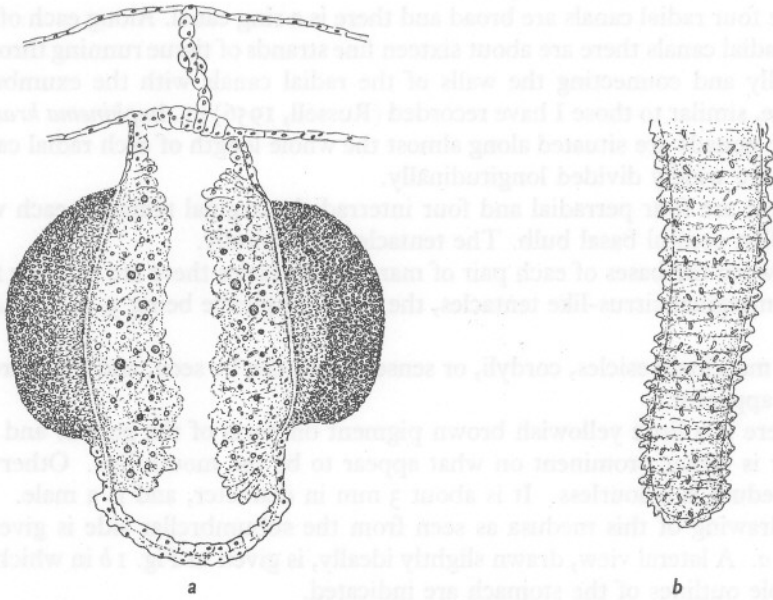


Fig. 2. *Krampella dubia* n.sp. a, section through radial canal and gonads, and showing strand of cells connecting wall of radial canal with exumbrella surface; b, marginal tentacula.

diverging to reach the exumbrella surface at three different spots. In no instance did there appear to be a definite canal surrounded by cells, though it is possible that there may be intercellular connexion of cavities between cells.

The radial canals carry the gonads on their lateral walls. They do not cover the whole of the walls dorso-ventrally, but begin a short distance from the subumbrella and are well separated ventrally (Fig. 2a). The endoderm of the greater part of the lateral wall consists of tall narrow digestive cells. Much of this tissue is in a disintegrated state, but in places the cell outlines can be seen.

The marginal tentacles are filled with cubical endoderm cells, and the basal bulbs and at any rate the proximal regions of the tentacles, are hollow.

The cirrus-like tentacles are cylindrical and hollow, having a single layer of cubical endoderm cells surrounding a central lumen. There are numerous small nematocysts evenly dispersed over them (Fig. 2b). They are evidently capable of extension since in their present state they are ringed with corrugations (Fig. 2b). From their structure they do not appear to be homologous with either cordyli or true marginal cirri which have a solid core of endoderm cells. It seems better to regard them as tentaculæ or true tentacles of a different kind from the large tentacles.

I have examined the nematocysts, but not under oil immersion. There are two sizes; the larger, about $17\ \mu$ long undischarged, appeared to be an atrichous haploneme, and the smaller, about $9\ \mu$ long undischarged, a micro-basic mastigophore. Both kinds were to be seen on the bases of the large marginal tentacles, but only the smaller kind on the tentaculæ.

The systematic position of this medusa is problematical. It is evidently a Leptomedusa. The combination of characters, absence of marginal vesicles and possible cruciform shape of the stomach, might indicate affinities with the Laodiceidae. There are, however, no cordyli nor are the small cirrus-like tentacles true marginal cirri.

Until a complete specimen is obtained it seems unnecessary to say more.

I have much pleasure in naming the genus after my friend P. L. Kramp, while giving a specific name which alludes to its uncertain systematic position. I propose the name *Krampella dubia* n.g., n.sp.

The specimen has been deposited in the British Museum (Natural History) and given the registration number B.M. 1957.5.8.1.

My thanks are due to Captain C. A. Hoodless and the crew of R.V. *Sarsia* who collected the specimen; and to Dr J. S. Alexandrowicz who very kindly removed and sectioned one quadrant of the medusa.

REFERENCE

- RUSSELL, F. S., 1956. On a new medusa, *Amphinema krampi* n.sp. *J. mar. biol. Ass. U.K.*, Vol. 35, pp. 371-3.