

**Further notes on *Subulina kassaiana* Rochebrune & Germain**

by

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In consequence of my description of the anatomy of *Subulina kassaiana* Rochebrune et Germain in *Basteria*, vol. 21, 1957, pp. 14—28, the late Mr. HUGH WATSON dissected some specimens of the species I could put at his disposal, and kindly acquainted me of his results, which appeared to differ in some respects from those I wrote down and figured in my paper.

Because I studied at that time only one or two specimens and the dissection of the animals was very difficult not only because of their smallness, but chiefly because of the strongness of the alcohol, in which they were preserved, so that the organs had become rather delicate and easily breaking, Watson's notes induced me to dissect some more specimens. These additional investigations compel to make some necessary improvements.

*Mantle-edge.* — The basal projection of the mantle-edge is not so sharp as in my figure 3, and has the shape of the shell's aperture. In most of the specimens dissected the lowest of the three lobes is not well developed and scarcely visible. Because my figure is reversed, the impression is prompted, that this little lobe is situated

beside the columella, though in the text I have said, that it concerned the lower *left* lobe. To remove any misunderstanding I am giving here a correcting figure (Fig. 1a).

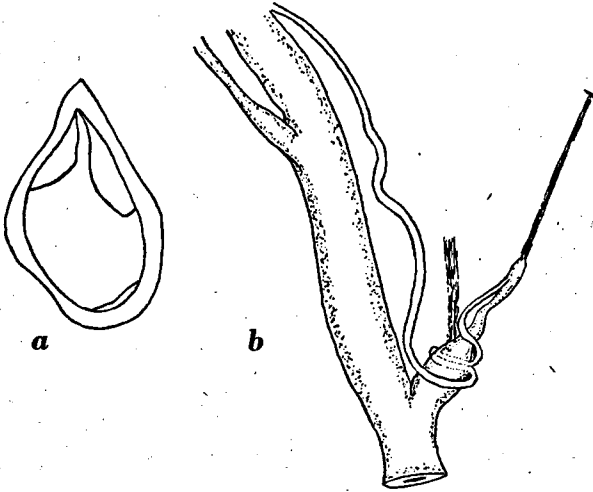


Fig. 1. *Subulina kassiana* Rochebrune & Germain, a: mantle-edge, b: male organs.

*Radula*. — WATSON studied the radula of an embryo and found that, though its teeth are almost of the same shape, they are far fewer in number than in the adult. In the adult specimens he dissected he found more teeth than I mentioned in my paper: about 65 in each transverse row, instead of 53 being the upmost in my specimens.

WATSON kindly drew my attention to the somewhat capsized position of the central tooth in my figure 5, which makes the impression, that it should be slightly asymmetrical. Actually the central tooth is perfectly symmetrical.

More thorough investigations of the marginal teeth brought me to the conviction, that what I originally took for the entocone, actually was the mesocone. The mesocone, therefore, remains the largest cusp, even in the outermost marginals, whereas the entocone appears to be smaller, and is often very small and narrow. The error seems also to have been proceeded from the fact, that, though the entocone sometimes remains simple, it is more often split into two, or less frequently three, little denticles.

*Eggs.* — Though I found in the few specimens I originally dissected only five eggs at the upmost, WATSON's specimens and also other specimens investigated by me afterwards contained up to six or seven eggs.

In my figure 6 I have drawn the spermoviduct and eggs in a lateral position and reduced them in size for practical reasons. Actually the eggs are arranged spirally, through more than a whorl, and extend posteriorly farther above the spermatheca than is shown in my figure. The outer thin wall of the spermoviduct is greatly expanded laterally around each egg or embryo, and is not extended forwards to form a deep pocket containing the lowest egg as my figure wrongly suggests.

The size of the eggs, which FRÖMMING says to be 1.4—1.6 mm in diameter, can be somewhat larger (1.7 mm).

*Male organs.* — In my figure 6 the shape of the penis has to be altered, as appeared from further dissection. Because the organ, on which my figure was based, is lost, it is impossible to compare it as yet, but investigation of more specimens showed, that the penis actually is not so simple as it has been figured. In normal position the anterior third or fourth part of the penis is narrower than the vagina, and broader than the rest of it. It is clothed with muscle-fibres, which continue as a short and rather broad retractor, which happens to lie under a part of the vas deferens. The penis then becomes much narrower and continues backwards about two and a half times as far as the anterior portion, and ends in a short penial appendix of the same width. To the tip of this appendix the long and narrow true penial retractor is attached.

The vas deferens runs forward beside of the free oviduct, crosses the posterior part of the vagina, and then passes forward to the posterior part of the thick portion of the penis, to become entangled in the outer muscle-fibres of its wall, where it forms two or three small loops before it narrows and runs back again beside the posterior narrow part of the penis, into which it enters at the base of the penial appendix. Fig. 1b shows the corrected male organs.