

In the suboral avicularian chamber, near to the mandibular end, there are two curious bodies partly embracing the muscular bands. The lower and wider one appears at first sight thin, as if it were a membranous wall separating the chamber, but sections leave no doubt in my mind of its being a sac, and the walls are formed of small nucleated cells. The smaller body rests upon this, and near the centre is tubular, spreading out at each end into a small gland-like body. In dissections or sections these two bodies usually adhere together and come away with the muscles.

Above there is a mass of "endorsac," which often assumes an annular form, and threads spread out in all directions, in some cases seeming to be attached to the larger of these sacs. The presence of this mass of endorsac is usual in the avicularia of the Chilostomata, but its taking an annular form seems to have been unnoticed.¹

As to the function of the other two bodies the problem seems a puzzle, but I do not think that they must be considered alone, for in the zoœcia of many species there is at each side of the aperture a sac-like body, which in *Retepora cellulosa* (Pl. III. figs. 12, 13) attains a considerable size, and it also occurs in *Retepora tubulata*, *Retepora denticulata*, *Retepora jacksoniensis*, *Retepora producta*, *Rhynchopora bispinosa*, and I also found a similar, but much smaller, body in the zoœcia of *Lepralia margaritifera*, and they can be seen in *Cellepora coronopus*. Ostroumoff² figures sacs similar to those of *Retepora cellulosa* in *Lepralia pallasiana*, calling them glands, and Haddon figures two bodies in *Flustra carbasea*,³ but no description is given; as Professor Haddon is on the other side of the world, no answer can be received to my question for some time. In this last case the bodies (*l.c.*) are not sac-like, but may nevertheless be homologous, as in *Cellepora pertusa* from the Red Sea there are in a similar position two narrow tubular vermiform bodies (Pl. III. fig. 14). Unfortunately, the spirit has evaporated from this specimen, which was bottled some years ago for further study.

Whether these bodies are in any way to be associated with the organs described by the late Dr. Joliet⁴ as segmentary organs, is a question not unnaturally suggesting itself. The nature of these organs of Joliet is left by his paper and figures somewhat doubtful, but I do not follow him in his comparisons with the intertentacular organ of Farre, Hincks, and Smitt.

Jullien, who seems to have had good material available, only gives very large figures of the polypide without any detail, and these do not differ from the generality of Chilostomatous polypides. He does not, however, show either of the structures now described.

¹ It has always seemed to me that we must look for the explanation of the function of the avicularium to this mass of parenchym, or endorsac, for the avicularia remain in activity when the polypides have all disappeared, and in this way the tissues of the colony are indirectly in communication with the surrounding water, so that oxygenation takes place, and the colony is kept alive.

² Ostroumoff, *Archives Slaves de Biologie*, tom. i., pl. i. fig. 17. I can at the moment refer only to the plate in the Russian copy.

³ Budding in Polyzoa, *Micr. Journ.*, vol. xxiii. p. 516, pl. xxxviii. fig. 12, *l.c.*

⁴ Organe Segmentaire des Bryozonaires endoprocte, *Archives de Zool. expér.*, tom. viii. pp. 497-512, pl. xxxix.