

## NOTE D.

(Pages 100, 106.)

## ON THE SUPPOSED COMMUNICATION OF THE CHAMBERED ORGAN AND LABIAL PLEXUS WITH THE EXTERIOR.

Perrier's statements respecting the direct continuity of the water-tubes depending from the oral ring of the larva with the inner ends of the water-pores of the disk have recently been extended to the adult *Antedon*. He further asserts not only that some of the water-pores open into the more or less glandular tubules of the labial plexus, but also that the canals forming the inner ends of the water-pores on the lower part of the disk open into the cavities of the chambered organ.<sup>1</sup>

I will not go so far as to deny the truth of these statements; but can only say that the results which Prof. Perrier believes himself to have obtained by "l'étude minutieuse de plus de deux cents coupes" are far from being in accordance with those of Ludwig, Greeff, Teuscher, or myself. It seems to me unlikely that the complex relations of the canals forming the inner ends of the water-pores which Perrier describes should have entirely escaped the notice of all of us. I freely admit that I may have overlooked the connection of the water-pores with the water-tubes and with the labial plexus; for the state of preservation of my material has not been such as to yield sections of one-fortieth of a millimeter thick. But, on the other hand, I have carefully studied many more than two hundred sections, nearer two thousand in fact, of several different types; and I believe it to be impossible that I could have avoided seeing such a connection between the water-pores and the chambered organ as is described in the following sentence, "leur plexus se continue jusqu'à l'organe cloisonné dans les chambres duquel s'ouvrent encore chez l'*Antedon rosaceus* les canaux issus des entonnoirs inférieurs du disque."

The chambered organ of a *Comatula* is lodged within the cavity of the centro-dorsal basin, covered up by the rosette, and surrounded by the ring of united first radials (Pl. LXI. fig. 2). It is therefore a perfect mystery to me how any of these canals which lead inwards from the ciliated water-pores and traverse the perisome of the disk can possibly open into its chambers.

Perrier describes himself as having been the first since the time of Müller to draw attention to these ciliated water-pores;<sup>2</sup> and he gives the date of his having done so as 1872.<sup>3</sup> In making this claim, however, he entirely ignores the fact that on the 21st of March 1871 Grimm had communicated a description of them with illustrative figures to the St. Petersburg Academy.<sup>4</sup> His description and figures were published in 1872, and

<sup>1</sup> Anatomie des Échinodermes; sur l'organisation des Comatules adultes, *Comptes rendus*, t. xviii., No. 23, 1884, p. 1449.

<sup>2</sup> *Comptes rendus*, t. xviii. p. 1449.

<sup>3</sup> Recherches sur l'anatomie et la régénération des bras de la *Comatula rosacea*, *Archives d. Zool. expér.*, vol. ii. p. 42.

<sup>4</sup> Zum feineren Bau der Crinoiden, *Bull. Acad. Sci. St. Petersb.*, t. xvii., 1872, col. 3-9, Mit einer Tafel.