

CHAPTER FIFTH.

THE DISCOPHORÆ RHIZOSTOMEÆ.

SECTION 1.

THE RHIZOSTOMEÆ IN GENERAL.

Ever since the Medusæ of this type have begun to be investigated, they have excited great wonder, and have been represented as differing widely from the others in their structure and mode of existence. While in all other Medusæ a so-called mouth has been observed in the centre of the lower surface of the body, through which the food could readily be introduced into the main digestive cavity, with the aid of the so-called arms, Rhizostoma and other Medusæ allied to it have been described by Reaumur, Cuvier, Eysenhardt, and even recently by Milne-Edwards, as destitute of mouth, and only capable of absorbing food through innumerable suckers traversing the arms and reaching the stomach through narrow channels. According to these representations, the Rhizostomidæ would appear widely different in their structure from the other Discophoræ, and they have been contrasted with them, as Polystomes; but their true relation seems to have escaped the penetration of those who sought for a solution of the difficulty. In his latest paper on the classification of Acalephs, Gegenbaur once more calls attention to this problem of the polystomy of the Rhizostomidæ, without, however, offering a solution. It seems to me to be very simple, and that a careful comparison of Aurelia, in all the successive stages of its growth, may explain how the Rhizostomidæ may appear widely different, and yet have the same structure as the common Medusæ. It is true, there is no central broad opening in the middle of the lower floor in Rhizostoma, as in Aurelia; but the margin of the arms shows innumerable minute pores, communicating with narrow tubes, gradually uniting into wider channels, and finally reaching the central cavity; while in Aurelia there is a quadrangular central