

published of this genus. In *Cephea* proper there are four genital sacs and four oral arches dividing into eight arms, alternating two and two with the genital sacs, as in *Rhizostoma*. But the position of the eye cannot be ascertained from the figures of Forskål.

Having thus far analyzed the actinostome of the Rhizostomidæ, with the view of ascertaining the nature of its different structural elements and its relations to the other parts of the lower floor and of the margin, it may not be out of place here to show, that what has been called the peduncle or proboscis in *Acalephs*, is a central prolongation on the lower side of the animal, composed of very heterogeneous elements in different families of *Acalephs*: in *Geryonia* and allied genera, it is a tube, formed by the prolongation of the lower floor, into which a conical central prolongation of the gelatinous disk extends like a prop. Nothing of the kind exists in any of the *Discophoræ* proper, though we have something similar, morphologically speaking, in the bulging of the lower surface of the gelatinous disk in *Æquorea*, and still more so in *Tima* and allied genera. In *Sarsia*, on the contrary, the proboscis consists only of a prolongation of the lower floor, without any corresponding pyramid from the gelatinous disk; but the tubular proboscis of *Sarsia* has none of those thickenings of the walls, near its base, which characterize the peduncle of the *Discophoræ* proper. We have already seen that in *Rhizostoma* the peduncle is formed by four pillars, which alternate with the genital sacs and, dividing again below their junction, branch to form the eight arms, and that in *Cassiopea* the space intervening between these arms forms a central disk, raised above the surrounding parts of the lower floor, and from the margin of which arise the radiating arms. In these *Discophoræ* there is no central aperture leading into the main cavity, owing to the close union of the margins of the arms which form the disk. In *Salamis* there is a similar central disk, from the margin of which the branching arms radiate; but if the figure of Quoy and Gaimard can be depended upon, there is a central opening in that disk, as there is, also, in the genus *Homonopsis*, figured by Lesson as a Mollusc, though it is, however, unquestionably, an *Acaleph*, closely allied to the genus *Salamis*, founded by Lesson upon the *Orythia incolor* of Quoy and Gaimard. In *Favonia* and *Limnorea*, finally, the centre of the actinostome is developed in another way. Between the pendant arms hangs a kind of central peduncle, which can hardly be compared to that of *Geryonia*, since it is surrounded by branching arms. Judging from the figures of LeSueur, this peduncle is probably homologous to the central disk of *Cassiopea*, forming a proboscis-like central prolongation between the arms, instead of a flat disk. But it remains to be ascertained whether that peduncle is solid or hollow, or whether, after all, it is not simply a prolongation of the gelatinous disk projecting beyond the arms. The travelling naturalists who have studied these *Medusæ* have given