

Nematophores in the Eleutheroplea.

The nematophores here belong, in almost every instance, exclusively to the moveable type. In very rare cases (Pl. VIII. figs. 1-3) the moveable nematophore is associated with a fixed nematophore developed in other parts of the same colony.

a. *Hydrocladial nematophores.*—The hydrocladial nematophores in the Eleutheroplea are, as in the Statoplea, disposed in two sets—mesial and lateral. The mesial nematophore is never, as in the Statoplea, adnate to the front of the hydrotheca, and is almost always removed to a point at some distance from the hydrotheca at its proximal side. It is this azygous nematophore which in very rare cases differs from the others in being immovable. In one instance, that of *Schizotricha multifurcata* (Pl. VII. figs. 4, 5), the single mesial nematophore is replaced by a pair of nematophores, one on each side of the internode. In some cases an azygous nematophore is also found on the hydrothecal internode at the distal side of the hydrotheca, while in *Plumularia armata* (Pl. IV. figs. 3, 4) this part of the internode supports, instead of a single mesial nematophore, a pair of lateral nematophores.

In every case the hydrothecæ of the Eleutheroplea are flanked, as in the Statoplea, by a pair of lateral nematophores.¹ Each of these is usually borne on the summit of a hollow chitinous process, which springs from the internode at either side of the hydrotheca. The process varies much in length, and is sometimes obsolete.

The hydrocladia of the Eleutheroplea differ from those of the Statoplea in being very often provided with internodes which do not carry hydrothecæ (Pl. I. figs. 1-4). The internodes thus destitute of hydrothecæ carry nematophores which are either solitary or are disposed in a longitudinal series on the front of the internode.

b. *Cauline nematophores.*—These are borne, generally in considerable numbers, along the stem and branches, and are often disposed in pairs close to the points from which the ultimate ramuli or hydrocladia spring (Pl. V.).

c. *Gonosomal nematophores.*—When these are present in the gymnocarpal Eleutheroplea they spring from the gonangium, where they are usually disposed in a symmetrical pair on its proximal end, and are here in connection with the base of the blastostyle (Pl. IV. figs. 2, 6). In some cases they are connected with other parts of the blastostyle, which is then pushed out of the axis of the gonangium, and lies in contact with its wall (Pl. IV. fig. 4). In such cases the wall of the gonangium is perforated along the course of the blastostyle, and the contents of the nematophores, which are developed externally, communicate through the perforations with the blastostyle.

In another very remarkable form (*Sciurella indivisa*, Pl. V.) the blastostyle is extensively ramified, and the ends of the ramification impinge on definite points sym-

¹ In the rare cases in which these lateral nematophores are stated to be absent, I believe that they have either been overlooked in consequence of their minuteness, or have fallen away from their points of attachment.