

of the hydrophores, pyriform, with a lateral tubular orifice and rounded summit, or with the summit broadly truncate, regularly and distinctly annulated throughout.

*Locality.*—Simon's Bay, Cape of Good Hope; shallow water.

*Halecium dichotomum* is a very distinct and remarkable species. The beautifully annulated condition of the gonangia presents a character not elsewhere met with in *Halecium*. In the general architecture of the hydrocaulus, and in the plexus of tubes with which the proximal ends of the stems are continuous, *Halecium dichotomum* closely approximates to *Halecium cymiforme* (Pl. VII.), but presents a combination of characters which separate it by a wide interval from every other known species of *Halecium*.

The stems, which rise free from the basal plexus to a height of from about half an inch to an inch, consist of a series of cylindrical tubes, each tube springing from a point close to the distal end of that which precedes it. These tubes represent the internodes of the stem, but instead of being as in other cases directly continuous with one another, they have their distal ends free. Each of these ends either directly supports a hydranth—the entire internode thus representing the basal segment of a hydrophore—or is continued by one or more superimposed segments. The stem may thus be regarded as a series of long, nearly straight, cylindrical hydrophores, either simple or extended by the superposition of accessory segments, each hydrophore springing, one from the other, so close to the distal end of that which precedes it, and at so high an angle, as to form a geniculate linear series. The long cylindrical internodes which in this way make up the stem are often prolonged by two instead of a single internode, both springing opposite to one another from points close to the distal end. Two branches which exactly repeat that from which they spring are thus formed, and give the dichotomous character to the ramification of the colony.

The basal plexus consists of an entangled mass of tubes whose branches unite freely with one another. These tubes, though their diameter is scarcely less than that of the stem, do not present the regular succession of internodes met with in the latter. Their walls are marked by rather irregular annular rugæ. They give off hydrophores which spring here and there from their sides, and some of these as in the hydrophores of the stem support laterally situated gonangia.

The fascicled condition of the stem found in most species of *Halecium* is usually but slightly marked in *Halecium dichotomum*, though some of the old stems may become very much branched and fascicled. The fasciculation, however, is in most cases chiefly confined to the basal plexus, where two or three tubes may here and there be seen united by their sides to one another.

The gonangia present a slight difference in form. While the greater number have the summit rounded and arched over the lateral orifice, this part is in others broadly truncate. The difference is probably dependent on different degrees of maturity; at all