

## (1) PLUMATELLA REPENS, L.

The colonies of *Plumatella* are formed of sheaths or coverings called *cœnœcia* which the polypides secrete, and appear as brownish tubes branching like tiny trees or seaweeds, extending over a surface measuring sometimes several square feet. There are two modes of attachment in these colonies: (*a*) where the lower portion of the stem is fixed and the remainder of the branch floats freely: (*b*) when the whole branch is closely adherent or creeping on the submerged object.

At the extremity of each branch a polypide protrudes, exposing the lophophore or plume-like organ (hence the name *Plumatella*). The polypides quickly retreat on the slightest alarm or disturbance, and remain in their sheaths until quite satisfied that the cause is removed.

"The body of the polypide\* is a transparent membraneous sac with a lophophore (horse-shoe shaped in this genus), on which are arranged the tentacles. Each tentacle is capable of independent motion, is ciliated on both sides, and is the only means the polypide has of receiving impressions. The mouth is at the fore end, the rest of the body being concealed in a brown sheath or *cœnœcium*. The mouth has on one border a tongue-like organ called the *Epistome*, which can close the opening, and prevent the escape of food. Extending from the mouth to the stomach is the *œsophagus*. The stomach is a widened tube, conspicuous by its contents. It is suspended in the hollow body, and is bathed by a colorless fluid which fills the body cavity and extends to the hollow tentacles. The stomach is followed by a tubular intestine which curves forward, opening on the lophophore." The polypide has no heart nor circulatory system. The body has a beautifully developed muscular system, which enables it to move freely and rapidly. One set of muscles everts the body, another set is used in expanding the various tentacles of the lophophore; and another set supports the body

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\* Dr. A. C. Stokes in "Aquatic Microscopy" p. 242.