

Fig. 2. Shows the structure of the soft parts of a female stock of *Pliobothrus symmetricus*. The structure is exposed by means of a section vertical to the surface of the coral. The mass of the coral, the hard skeleton being removed, is composed of the usual cœnosarcial meshwork which is bounded externally by a continuous surface layer of ectoderm containing large nematocysts. Embedded in the meshwork are two kinds of zooids and the gonophores. The sac or sheath of the single gastrozoid shown in the figure is opened in order to display the zooid within.

Z. Gastrozoid. S placed in the neck of the sac of the gastrozoid.

X, X. Spaces in the meshwork corresponding to the inter-radial spaces in *Sporadopora*. Here the radial arrangement is hardly to be discerned.

D Z, D Z, Dactylozooids. The transverse lines drawn encircling the bodies of these zooids indicate folds into which the bodies of the zooids are thrown in extreme retraction.

O. Rests on a cup-shaped spadix, bearing a mature unimpregnated ovum, containing a germinal vesicle.

G. Impregnated ovum in an early stage of development.

P. Planula nearly mature contained within its sac.

Fig. 3. Male gonophore of *Pliobothrus symmetricus*.

PLATE IX.

Shows the structure of the soft parts of *Cryptohelia pudica* displayed by decalcification.

The figure represents two cyclo-systems of zooids, together with the short branch of the coral connecting them. The cyclo-system on the left hand in the figure is represented as laid open by a vertical cut passing through the axis of the gastrozoid, and the disposition of the several parts is here shown in detail. The breeding sac of this system is in an early stage of development. The dactylozooids are shown as protruded.

In the cyclo-system on the right hand the superficial membrane is mostly left entire, and the cyclo-system is not opened, but a view is obtained into the open mouth of the gastropore showing the dactylozooids doubled down into it. The breeding sac is here shown in its fullest activity, and containing a planula ready for emergence. The sac is represented as cut open in order to exhibit the contained structures.

G Z. Cavity of the sac of the gastrozoid.

O. Mouth of the gastrozoid, which is devoid of tentacles.