

There are from about fifteen to twenty-two dactylopores in each cyclo-system, in form and arrangement almost identical with those of *Astylus subviridis*.

The margin of one side of each cyclo-system is raised up into a stout projection, which is inclined slightly over the mouth of the system for a short distance. After running this inclined course the projection spreads out into a thin broad lamina, with a rounded border, which extends horizontally over the mouth of the cyclo-system, and hangs as a lid or cover over its entire extent (Pl. II. fig. 7, and Pl. XII. fig. 7, *a*, *b*). The inclined portion of the projection is stout and thickened, and is strengthened by being continuous at its base with the adjacent cœnenchym of the branch. It is thickened to the greatest extent in the direction towards the centre of the cyclo-system, and so much so that its substance projects within the cavity of the upper chamber of the gastropore as a prominent ridge. This ridge, becoming gradually less marked as it descends, is continued downwards to the margin of the aperture leading from the upper to the lower chamber of the gastropore, and appears as a prominent thickening of the wall of the upper chamber in this region (Pl. II. fig. 7, *A*). The dactylopores are aborted and absent in the region of the cyclo-system overgrown by the base of the lid. The lateral margins of this base are often grooved by dactylopores on either side, which have the appearance of having been pushed aside, as it were, by the growth of the projection. The thin horizontal lamina constituting the lid of the cyclo-system is often not quite smooth in surface, but somewhat undulate or crumpled, as it were. The lids are all directed with great regularity towards the tips of the branches on which the cyclo-systems to which they belong rest; the supports of the lids arising from the sides of the cyclo-systems nearest the origins of the branches.

The gastropores are divided into two chambers as in *Astylus*. In the present form the lower chamber is relatively smaller than in *Astylus subviridis*. Its communications with the dactylozooids are closely similar to those in *Astylus* (Pl. II. fig. 7). The opening between the two chambers in *Cryptohelia* is circular, not horse-shoe shaped as in *Astylus*.

Ampullæ occur only in connection with the cyclo-systems in *Cryptohelia pudica*. In the female specimens examined by me, only one ampulla is developed in connection with each system. It may lie on either side of the system, but not on the back of the flabellum. The ampullæ are rounded cavities of irregular form, which, when mature, are so large as to be as wide as the side of a cyclo-system, and occupy it entirely (Pl. XI.).

Numerous specimens of *Cryptohelia pudica*, the soft parts of which are not preserved, have several ampullæ developed in connection with each cyclo-system. These are concluded to be male examples. The ampullæ are not nearly so large as in female specimens, and do not give evidence of their presence by forming swellings on the surface of the corallum.