

2. *Calyptrophora wyvillei*, Perceval Wright (Pl. XIX. figs. 2, 2a; Pl. XX. fig. 5).

*Calyptrophora wyvillei*, Perceval Wright, Narr. Chall. Exp., vol. i. p. 690, 1885.

Axis dark brown, shining, hard, striately furrowed in the only example found, branches unilateral. Polyp in dense verticils almost touching each other, oral opening downwards. The scales at base of the polyps form a well-marked collar, but the true body-spicules are of the type characteristic of the genus. The first ring-like spicule is sometimes furnished with two blunt spines and at other times it has four to five irregular spinous projections. The second spicule is constricted in the middle, and has either a simple waved outline on its free margin or projects in spines. The opercular spicules are very much larger than in *Calyptrophora japonica*.

The spicules of the cœnenchyma are irregular shaped, flattened, scale-like, translucent, the dark brown axis showing through them; they measure 2.50-0.75; 1.5-0.50; 0.75-0.50 mm. The spicules nearest the base of the polyps are larger, and curved, generally one at either side of the polyp. These measure 2-1; 1.75-0.75; 1.50-0.50 mm.

The first annular spicule is distinguished by two long spines. This spicule measures on an average of several polyps 3-1.50; 2.75-1.50 mm., the spines vary in sharpness, and are sometimes bifid.

The second annular spicule when lying on its dorsal surface reminds one of a little basket with a handle across it; it is slightly constricted in the centre, the free surface is waved, not spined as in *Calyptrophora japonica*; it measures 2 by 1.50 mm. The opercular spicules vary, the outer six being larger and more calcareous than the inner two; they are triangular in form, with broad bases, and blunt to sharp apices, the outer ones are slightly folded or keeled, and project beyond the second of the body spicules when the polyp is withdrawn. They measure 1.40-1; 1.50-0.75; 1.25-0.50 mm. In all the spicules the surface is pustulate, sometimes assuming quite a frosted appearance.

This interesting species, of which only a fragment of a stem about 90 mm. in height was found, seems sufficiently distinct from *Calyptrophora japonica*.

*Habitat*.—Station 171, north-east of the Kermadec Islands; depth, 600 fathoms; bottom, hard ground.

## Subfamily 3. PRIMNOINÆ.

Colony simple or branched. Polyps in whorls or spirals on the stem or branches. Axis rigid, horny, calcareous. The spicules of the cœnenchyma are scale-like. Those of the polyps are very varied in form, but are referable to the same type. The opercular spicules are well marked.