

## Subfamily 3. PRIMNOIDINÆ, n. subfam.

Colony branched, with oppositely placed polyps. The spicules are flat, thin scales, deposited uniformly in the cœnenchyma and in the polyp calyces, and covering each other like tiles on a roof. The opercular scales are not distinctly differentiated and therefore the oral region is only incompletely protected. The axis is horny, calcareous.

Genus *Primnoides*, n. gen.

An upright colony ramified in one plane, the branches arise oppositely and bear two rows of oppositely placed polyps. The spicules on the stem and calyces are flat, thin scales, which cover each other like roof tiles and are uniformly spread over the stem and calyces. The operculum is rudimentary and not capable of covering the mouth of the retracted polyp. Axis horny, calcareous. The polyps arise in an intercalary manner.

This peculiar form constitutes a type which differs from all other Primnoids in that a differentiation of the calcareous bodies into scales of the cœnenchyma, of the calyx, and of its operculum has not as yet taken place, or no longer occurs. The uniformly developed scales are, however, formed as in other Primnoids and are closely related to those of *Plumarella*. They are flat, thin, with a central nucleus surrounded by little prominences. The free projecting edge is convex, smooth and entire, the covered edge straight, thickened, and provided with teeth and spines. On the stem and branches the direction of the scales is usually towards the apex, where two calyces arise their direction deviates from the middle line towards the mouths of the calyces. At the oral region are found six to eight slightly projecting scales, which, however, do not form a proper operculum, and are not capable of closing the mouth in the contracted calyces. The axis is hard, horny, calcareous, only in the thinner twigs flexible and soft. Growth takes place as in *Primnoella*, *Caligorgia*, and others. New polyps arise in the interstices between the old ones, but always at some distance from the bases of the two polyps.

*Primnoides sertularoides*, n. sp. (Pl. XIX. fig. 1, 1a; Pl. XXI. fig. 16).

The upright, straight stem gives off opposite branches on two sides; the branches in most cases remain simple, and only exceptionally give off secondary branches in the same manner. The polyps arise oppositely from the stem and twigs at intervals of 2 mm. The calyces are wart-like, 1 to 1.5 mm. long, laterally compressed. They arise from the stem with a broad base and diminish towards the apex. The scales