

Speaking generally, the species of *Salicornaria* may also be grouped into those in which the areolation is fundamentally rhomboidal, and those in which it is strictly hexagonal. In both, in certain states, pyriform areas are common, more especially in the younger parts; and the rhomboidal areas very commonly become hexagonal by the truncation of the upper and lower angles, whilst in the truly hexagonal forms the upper and lower angles of the area are acute, and it is very rare, I think, to meet with the true hexagon in a rhomboidal species; but this occurs sometimes in *Salicornaria sinuosa*. In connection with these two fundamental types of areolation, it would appear that the rhomboidal form occurs in those species in which the articulation is by straight tubes, whilst the true hexagonal areolation is characteristic of those in which the nodular connection exists.

The known species in which the areolation is fundamentally rhomboidal and the articulation tubulate, are:—

- (1) *Salicornaria farciminoidea*, Cuvier.
- (2) *Salicornaria sinuosa*, Hasswell.
- (3) *Salicornaria simplex*, n. sp. (Pl. XXXIII. fig. 8).
- ? (4) *Salicornaria crassa*, n. sp.
- ? (5) *Salicornaria hirsuta*, Kirchenpauer.

Whilst those in which the areolation is originally hexagonal and the articulations nodular are:—

- (6) *Salicornaria variabilis*, n. sp.
- (7) *Salicornaria aciculata*, n. sp.
- (8) *Salicornaria bicornis*, Busk.
- (9) *Salicornaria dubia*, n. sp.
- (10) *Salicornaria malvinensis*, Busk.
- (11) *Salicornaria tenuirostris*, Busk.
- (12) *Salicornaria johnsoni*, Busk.
- (13) *Salicornaria johnsoni*, var. *gracilis*, Busk.
- ? (14) *Salicornaria hexagonalis*, n. sp.

*γ. inarticulatae*.—The only cylindrical branching form with which I am acquainted, in which the growth of the branches is absolutely continuous and without the least indication of segmentation is:—

- (15) *Salicornaria magnifica*,

which is further distinguished by the entire absence of avicularia.

As regards the bathymetrical and geographical distribution of the Challenger *Salicornariadæ*, it may be stated that the former extends from 5 to 1950 fathoms; and as