

years advancing in the same direction, a series of banks are left in succession, side by side, that nearest the creek being the youngest. These banks commonly become recolonized by vegetation, and by comparing the vegetations of a series a close approximation is obtained of the various successions through which the marsh as a whole has passed.

It was partly in this way, and partly by comparing the changes in the vegetation of the individual banks over a period of six years, that the broad outlines of marsh development in the salt marsh at the Bouche d'Erquy in Brittany were elucidated. As the case is typical of the sandy type of salt marsh, and the history of the colonization of a single sand-bank provides an epitome of the colonization of the whole marsh, a short illustrated account will not be out of place here.

Colonization of Sand-banks in the Bouche d'Erquy.—1st Phase.—Banks of sand are deposited near points in certain creeks where the bank is being eroded by the meandering of the creek. The sand-bank illustrated here was oval in form, 20 feet wide at the broadest point, and 40–50 feet long. The position was such that the sand-bank was not covered at the lower neap tides. All the spring tides covered it, the highest ones with at least 6 feet of water. The flow of the water in the creek often reached a velocity of 3 to $3\frac{1}{2}$ miles an hour.

The first flowering plants to appear on the bank were a scattering of two species of *Salicornia*, viz. the annual species, *S. ramosissima*, and the perennial, *S. radicans*. These plants on establishment at once accrete hummocks of sand, in much the same way as a *Psamma* tuft accretes an embryo dune (cf. p. 60); with this difference, that here water is the agent of transport whilst in the case of the dune it is wind. By August the hummock-forming plants have attained their maximum growth for the season, and the hummocks will likewise be at full size. On the approach of winter the plants of *Salicornia ramosissima* die, their skeletons remain in place till the following spring, and serve to shelter the hummocks that have accreted around them. Ultimately these plants disintegrate and weather, and their hummocks, no longer sheltered by an organic nucleus, are dispersed. Other seedlings of the same species establish