

a terminal succession, technically known as the "climax" vegetation. This is commonly the last and most enduring phase.

On the salt marsh such terminal successions include the *Glyceria* and *Armeria* swards, the *Statice* marsh, the *Juncus* belt, and doubtless others. The detailed history of development has been followed only in a few cases, and even in these we are for the most part ignorant of the causes which determine the several successions. Attention is only just beginning to be directed to the intensive study of the habitat, and little more has come to hand than the names of the species and the order in which they supplant one another in a certain number of instances. In the case of the salt marsh we know that these changes are accompanied by a rise in level, and this of course must mean increased drainage and a less amount of tidal immersion. These alone are factors which will react favourably on certain plants and unfavourably on others—plants being on the whole rather exacting in their water requirements. Whether, however, such changes are by themselves decisive, or whether, on the other hand, plants may not produce in the soil toxic bodies prejudicial to themselves, and thus indirectly favourable to the advent of the next succession, must remain for the present an open question (cf. pp. 63, 64).

The developmental sequence of a salt marsh is not necessarily obvious at a glance. Quite possibly the area visible from a given point is all in the same phase of development, i.e. is all in the same succession. The only chance in a case like this is the possibility that the remains of previous vegetations may be preserved below the surface still in a recognizable state—as frequently happens in peat bogs. Generally, however, different parts of the marsh are in different phases, and if these are present in sufficient numbers it will be possible, by listing the constituent plants, to arrange the phases in their order. All that is necessary then is to be certain as to which is the relatively initial and which the relatively final phase.

In a marsh undergoing local erosion by undercutting with a migration of its creeks, much of the eroded material is apt to be deposited as a bank on the following side of the creek whilst the advancing side carries on. If the creek continue for some