

other productions seem to have ranged. The Cycadaceæ possess certain characters which belong to both : they are, if I may so speak, fern-pines, with, in some instances, a peculiarity of aspect which seems also to ally them to the palms. Again, the Lycopodiaceæ, intermediate between the mosses and the ferns, may be described as fern-mosses, with a peculiarity of aspect in some of the Oolitic species that seems to ally them to the pines. And the Equisetaceæ belong to at least the same sub-class as the ferns,—the Acrogens. The Palmæ, as shown by the English deposits, were also present in the Oolitic flora : nor is it probable that a species of vegetation which the old Yorkshire of the Oolite possessed, the old Scotland of the Oolite should have wanted ; though I have not yet succeeded in finding the remains of palms in any of our Scotch deposits.

The animal productions of our country during this early period were divided, like those of the present time, into the four great Cuvierian divisions, all of which we still find in a fossil state in our rocks. Corals akin to the tropical forms,—some of them of great size,—with star-fishes and sea-eggs, represent the radiata ; a fossil lobster which occurs in the Lias of Cromarty somewhat meagrely represents the articulata. The shelled mollusca we find very largely represented in almost all their classes and families, from the high Cephalopods to the low Brachipods ; and in this division the peculiar character of the Oolitic system is more strongly impressed than even on its flora. Its corals, though many of them of great size, as I have just said, and of elegant form, might almost pass for those of the intertropical seas of the present day ; nor are its crustacea and insects, even where best preserved, as in the Oolites of England, of a character widely different from those which still exist. But by much the larger part of its mollusca bear the stamp of a fashion that has perished. It is chiefly, however, in its molluscas of the first class,—the Cephalopods,—creatures