

beds; but we have not yet succeeded in detecting among them a single dicotyledonous tree of the higher sub-classes, and only a few dicotyledonous leaves. They are all coniferous gymnospermæ, chiefly of the pine and araucarian families; and in the Fauna associated with them, we find that the prevailing forms are reptilian. The reptile occupied as large a place in these Secondary periods as that occupied by the mammal in the Tertiary ones. So far, indeed, as we yet definitely know, there existed during these herpetological ages only two species of mammals,—a small marsupial and small insectivorous animal. Again, in the Flora of the Palæozoic division, we still find the pine and the araucarian, mixed, however, with extraordinary vegetable types, some of which have become wholly obsolete, and some of which are linked by but faint analogies to aught that now exists; but which, generally speaking, seem to be, though high representatives of their kind, of a kind in itself not high. In the Fauna of the period, down till at least the base of the middle Palæozoic system, fishes seem the dominant forms,—fishes, many of them of great size, formidably armed, and uniting in their organization, reptilian to the ordinary ichthyic peculiarities, but in not a few of their number destitute of an internal skeleton of bone. True, during these ages the reptile also existed, but in such scanty proportions, that while the Coal Measures have yielded their ichthyic remains by thousands and tens of thousands, they have yielded to the sedulous search of the geologist only three reptiles and the trace of a fourth; and, while in single platforms of the Old Red Sandstone there are perhaps as many fishes entombed as are at present living on all the fishing banks of the country, the entire system has furnished the remains of but one reptile (if, indeed, the lacertian of Spynie in reality belong to it), and the foot-tracks of a few others. In the Lower Palæozoic formations, the trace of even the fish becomes unfrequent, and the