

nearest to existing genera and species, in the most recent Tertiary deposits; and differ from them most widely in strata whose antiquity is the highest; and that strata of intermediate age are marked by intermediate changes of ichthyological condition.

It appears still further, that all the great changes in the character of fossil Fishes take place simultaneously with the most important alterations in the other classes of fossil animals, and in fossil vegetables; and also in the mineral condition of the strata.*

It is satisfactory to find that these conclusions are in perfect accordance with those to which geologists had arrived from other data. The details that lead to them, will be described by M. Agassiz, in a work of many volumes, and will form a continuation of the *Ossemens Fossiles* of Cuvier. From the parts of this work already published, and from communications by the author, I select a few examples, illustrating

* The genera of Fishes which prevail in strata of the Carboniferous order are found no more after the deposition of the Zechstein, or Magnesian limestone. Those of the Oolitic series were introduced after the Zechstein, and ceased suddenly at the commencement of the Cretaceous formations. The genera of the Cretaceous formations are the first that approximate to existing genera. Those of the lower Tertiary deposits of London, Paris, and Monte Bolca, are still more nearly allied to existing forms; and the fossil Fishes of Oeningen and Aix approximate again yet closer to living genera, although every one of their species appears to be extinct.