

been gleaned from the mass of literature bearing on the Geological aspect of the subject which indicates in a general way the centre of origin and direction of travel taken by the flora and fauna which seems to have been contemporaneous with primitive man. From before mentioned reasons we are safe in inferring that man moved along with the fauna and flora upon which he subsisted, and that the same causes that influenced their migration operated directly and indirectly upon his own.

Geology tells us that the earth has been continually cooling since life came upon it, and that up to tertiary times the interior heat was the chief factor in determining climate and until then there was little variation of temperature over all portions of the Globe. But the earth's heat diminishing much faster than the sun's the relation has so changed that great differences of temperature now exist not only in different parts at the same time, but at the same place at different seasons.

The fauna and flora contemporaneous with early man seem to have come in with these differential temperatures and as we enter the tertiary formations we find ourselves upon the threshold of the modern types of life. The ages when lycopods, ferns, cycads, and yew like conifers were the leading forms of vegetation have passed away and that of the dicotyledonous angiosperms now succeeds them.

This flora was not confined to what is now the temperate regions but extended far within the Arctic circle. One of the most remarkable discoveries of modern times has been that of tertiary plant beds in North Greenland containing 137 species, of which 46 are found in the central and European Miocene basins. They were mostly trees including 30 species of conifers besides birches, oaks, planes, poplars, walnuts, limes, magnolias and many more. These plants grew on the spot for their fruits in various stages of growth have been obtained from the deposits. In addition to these terrestrial trees and shrubs the lacustrine waters of the time bore water lilies while their banks were clothed with reeds and sedges. All this vegetation grew within $8^{\circ} 15'$ from the Pole in a region now covered with snow and ice and in darkness half the year.

As the climate became cooler in Europe during the late Tertiary, we find that the tropical plants one by one retreated southward while some of our common wild flowers and water plants, such as the buttercup and marsh marigold, made their appearance. The advent of a colder period is well shown in