

I need scarcely point out in detail how very much this change of climate must have affected the geographical distribution of organisms, and the origin of numerous new species. The animal and vegetable species, which, down to the tertiary period, had found an agreeable tropical climate all over the earth, even as far as the poles, were now forced either to adapt themselves to the intruding cold, or to flee from it. Those species which adapted and accustomed themselves to the decreasing temperature became new species simply by this very acclimatization, under the influence of natural selection. The other species, which fled from the cold, had to emigrate and seek a milder climate in lower latitudes. The tracts of distribution which had hitherto existed must by this have been vastly changed.

However, during the last great period of the earth's history, during the quaternary period (or diluvial period) succeeding the tertiary one, the decrease of the heat of the earth from the poles did not by any means remain stationary. The temperature fell lower and lower, nay, even far below the present degree. Northern and Central Asia, Europe, and North America from the north pole, were covered to a great extent by a connected sheet of ice, which in our part of the earth seems to have reached the Alps. In a similar manner the cold also advancing from the south pole covered a large portion of the southern hemisphere, which is now free from it, with a rigid sheet of ice. Thus, between these vast lifeless ice continents there remained only a narrow zone to which the life of the organic world had to withdraw. This period, during which man, or at least the human ape, already existed, and which forms the