

the higher and colder uplands, witnesses to the former severity of the climate. As that severity lessened, the Arctic vegetation, that hitherto had peopled all the lower grounds of central and western Europe, was driven up into the hills before the advance of plants loving a milder temperature, which had doubtless been natives of Europe before the period of great cold, and which were now enabled to reoccupy the sites whence they had been banished. On the higher mountains, where the climate is still not wholly uncongenial for them, and likewise here and there at lower levels, colonies of the once general Arctic flora still survive. The Arctic animals have also been mostly driven away to their northern homes, or have become wholly extinct. But the remains of the Arctic plants and to some extent also of the animals occur in the lacustrine clays, peat-mosses and other deposits of the glacial series, even down into the heart of Europe.

It has been forcibly pointed out by Mr. Wallace that the present mammalian fauna of the globe presents everywhere a striking contrast to the extraordinary variety and great size of the mammals of the Tertiary periods. "We live," he says, "in a zoologically impoverished world, from which all the largest, and fiercest, and strangest forms have recently disappeared."<sup>19</sup> He connects this remarkable reduction with the refrigeration of climate during the Glacial Period. The change, to whatever cause it may be assigned, is certainly remarkably persistent in the Old World and in the New, and not merely in the temperate and northern regions, but even as far south as the southern slopes of the Himalaya Mountains.

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<sup>19</sup> "Geographical Distribution of Animals," i. p. 150. Consult also Asa Gray, *Nature*, xix p. 327 (363).