

and prevent the actual accomplishment of such conversions. A faint image of the certain doom of a species less fitted to struggle with some new condition in a region which it previously inhabited, and where it has to contend with a more vigorous species, is presented by the extirpation of savage tribes of men by the advancing colony of some civilized nation. In this case the contest is merely between two different *races*—two varieties, moreover, of a species which exceeds all others in its aptitude to accommodate its habits to the most extraordinary variations of circumstances. Yet few future events are more certain than the speedy extermination of the Indians of North America and the savages of New Holland in the course of a few centuries, when these tribes will be remembered only in poetry or history.

We often hear astonishment expressed at the disappearance from the earth in times comparatively modern of many small as well as large animals, the remains of which have been found in a fossil state, under circumstances implying that neither any great geographical revolution, nor the exterminating influence of man has intervened to account for their extinction. But in all such cases we should inquire whether we are sufficiently acquainted with the numerous and complicated conditions on which the perpetuation of each species depends, to entitle us to wonder if it should be suddenly cut off.

Mr. Darwin, when calling attention to the fact that the horse, *megatherium*, *megalonyx*, and many contemporary Mammalia, had perished in South America after that continent had acquired its present configuration, and when, if we may judge by the Testacea, the climate very nearly resembled the present, observes, "that in the living creation one species is often extremely rare in a given region, while another of the same genus and with closely allied habits is exceedingly common. A zoologist familiar with such phenomena, if asked to explain them, usually replies, that some slight difference in climate, food, or the number of its enemies, must determine the relative strength of the two species in question, although we may be unable to point out the precise manner of the action of the check. We are, therefore, driven to the conclusion, that causes generally quite inappreciable by us, determine whether a given species shall be abundant or scanty in numbers. Why, then, should we feel astonishment if the rarity is occasionally carried a step farther, — to extinction?"*

* Journ. of Nat. Hist. &c. 2d edit., 1845, p. 175.; also Lyell's 2d Visit to the United States, vol. i. p. 351.