

vigorous as those of their predecessors, and that they were as capable, under favourable circumstances, of repeopling the earth with their kind. The manner in which some species are now becoming scarce and dying out, one after the other, appeared to me to favour the doctrine of the fixity of the specific character, showing a want of pliancy and capability of varying, which ensured their annihilation whenever changes adverse to their well-being occurred; time not being allowed for such a transformation as might be conceived capable of adapting them to the new circumstances, and of converting them into what naturalists would call, new species.\*

But while rejecting transmutation, I was equally opposed to the popular theory that the creative power had diminished in energy, or that it had been in abeyance ever since Man had entered upon the scene. That a renovating force, which had been in full operation for millions of years, should cease to act while the causes of extinction were still in full activity, or even intensified by the accession of Man's destroying power, seemed to me in the highest degree improbable. The only point on which I doubted was, whether the force might not be intermittent instead of being, as Lamarck supposed, in ceaseless operation. Might not the births of new species, like the deaths of old ones, be sudden? Might they not still escape our observation? If the coming in of one new species, and the loss of one other which had endured for ages, should take place annually, still, assuming that there are a million of animals and plants living on the globe, it would require, I observed, a million of years to bring about a complete revolution in the fauna and flora. In that case, I imagined that, although the first appearance of a new form might be as abrupt as the disappearance of an old one, yet naturalists might never yet have witnessed the first entrance on the stage

\* *Laws of Extinction, Principles of Geology*, 1st ed. 1832, vol. ii. chap. v. to xi. inclusive; and 9th ed. ch. xxxvii. to xlii. inclusive. 1853.