

CHAPTER XXXV.

TRANSMUTATION OF SPECIES — *continued.*

Recapitulation of the arguments in favour of the theory of transmutation of species — Their insufficiency — Causes of difficulty in discriminating species — Some varieties possibly more distinct than certain individuals of distinct species — Variability in a species consistent with a belief that the limits of deviation are fixed — No facts of transmutation authenticated — Varieties of the Dog — the Dog and Wolf distinct species — Mummies of various animals from Egypt identical in character with living individuals — Seeds and plants from the Egyptian tombs — Modifications produced in plants by agriculture and gardening.

THE theory of the transmutation of species, considered in the last chapter, has met with some degree of favour from many naturalists, from their desire to dispense, as far as possible, with the repeated intervention of a First Cause, as often as geological monuments attest the successive appearance of new races of animals and plants, and the extinction of those pre-existing. But, independently of a predisposition to account, if possible, for a series of changes in the organic world by the regular action of secondary causes, we have seen that in truth many perplexing difficulties present themselves to one who attempts to establish the nature and reality of the specific character. And if once there appears ground of reasonable doubt, in regard to the constancy of species, the amount of transformation which they are capable of undergoing may seem to resolve itself into a mere question of the quantity of time assigned to the past duration of animate existence.

Before entering upon the reasons which may be adduced for rejecting Lamarck's hypothesis, I shall recapitulate, in a few words, the phenomena, and the whole train of thought, by which I conceive it to have been suggested, and which have gained for this and analogous theories, both in ancient and modern times, a considerable number of votaries.

In the first place, the various groups into which plants and animals may be thrown seem almost invariably, to a beginner, to be so natural, that he is usually convinced at first, as was Linnæus to the last, "that genera are as much founded in nature as the species which compose them."* When by examining the numerous intermediate gradations the student finds all lines of demarcation to be in most instances obliterated, even where they at first appeared most distinct, he grows more and more sceptical as to the real existence of genera, and finally regards them as mere arbitrary and artificial signs, invented, like those which serve to distinguish the heavenly constellations, for the convenience of classification, and having as little pretensions to reality.

* Genus omne est naturale, in primordio tale creatum, &c. Phil. Bot. § 159
See also *ibid.* § 162.