CHAPTER XXXIX.

LAWS WHICH REGULATE THE GEOGRAPHICAL DISTRIBUTION OF SPECIES - continued.

Geographical distribution of animals—Buffon on specific distinctness of quadrupeds of Old and New World—Doctrine of "natural barriers"—Different regions of indigenous mammalia—Europe—Africa—India, and Indian Archipelago—Australia—North and South America—Quadrupeds in islands—Range of the Cetacea—Dispersion of quadrupeds—their powers of swimming—Migratory instincts—Drifting of animals on ice-floes—On floating islands of drift-timber—Migrations of Cetacea—Habitations of birds—Their migrations and facilities of diffusion—Distribution of reptiles, and their powers of dissemination—Page 607

CHAPTER XL.

LAWS WHICH REGULATE THE GEOGRAPHICAL DISTRIBUTION OF SPECIES - continued.

Geographical distribution and migrations of fish — of testacea — of zoophytes — Distribution of Insects — Migratory instincts of some species — Certain types characterize particular countries — Their means of dissemination — Geographical distribution and diffusion of man — Speculations as to the birth-place of the human species — Progress of human population — Drifting of canoes to vast distances — On the involuntary influence of man in extending the range of many other species — — — — — — — — — — — — — — 624

CHAPTER XLI.

THEORIES RESPECTING THE ORIGINAL INTRODUCTION OF SPECIES.

Proposal of an hypothesis on this subject — Supposed centres or foci of creation — Why distinct provinces of animals and plants have not become more blended together — Brocchi's speculations on the loss of species — Stations of plants and animals — Causes on which they depend — Stations of plants how affected by animals — Equilibrium in the number of species how preserved — Peculiar efficacy of insects in this task — Rapidity with which certain insects multiply or decrease in numbers — Effect of omnivorous animals in preserving the equilibrium of species — Reciprocal influence of aquatic and terrestrial species on each other — 642

CHAPTER XLII.

EXTINCTION OF SPECIES - CHANGES IN THE STATIONS OF ANIMALS.

Extension of the range of one species alters the condition of many others — The first appearance of a new species causes the chief disturbance — Changes known to have resulted from the advance of human population — Whether man increases the productive powers of the earth — Indigenous quadrupeds and birds extirpated in Great Britain — Extinction of the dodo — Rapid propagation of domestic quadrupeds in America — Power of exterminating species no prerogative of man — Concluding remarks

CHAPTER XLIII.

EXTINCTION OF SPECIES - INFLUENCE OF INORGANIC CAUSES.

Powers of diffusion indispensable, that each species may maintain its ground—
How changes in physical geography affect the distribution of species—Rate of
the change of species due to this cause cannot be uniform—Every change in
the physical geography of large regions tends to the extinction of species—
Effects of a general alteration of climate on the migration of species—Gradual
refrigeration would cause species in the northern and southern hemispheres to
become distinct—Elevation of temperature the reverse—Effects on the condition
of species which must result from inorganic changes inconsistent with the theory
of transmutation——666

CHAPTER XLIV.

EXTINCTION AND CREATION OF SPECIES.

Theory of the successive extinction of species consistent with a limited geographical distribution — Opinions of botanists respecting the centres from which plants have been diffused — Whether there are grounds for inferring that the loss, from