

on which these general views are founded will ever be materially affected, since they are already confirmed by the examination of nearly one hundred thousand species of plants.

The entire change of opinion which the contemplation of these phenomena has brought about is worthy of remark. The first travellers were persuaded that they should find, in distant regions, the plants of their own country, and they took a pleasure in giving them the same names. It was some time before this illusion was dissipated; but so fully sensible did botanists at last become of the extreme smallness of the number of phænogamous plants common to different continents, that the ancient Floras fell into disrepute. All grew diffident of the pretended identifications; and we now find that every naturalist is inclined to examine each supposed exception with scrupulous severity.\* If they admit the fact, they begin to speculate on the mode whereby the seeds may have been transported from one country into the other, or inquire on which of two continents the plant was indigenous, assuming that a species, like an individual, cannot have two birthplaces.

*Marine vegetation.* — The marine vegetation is divisible into different systems, like those prevailing on the land; but they are much fewer, as we might have expected, the temperature of the ocean being more uniform than that of the atmosphere, and consequently the dispersion of species from one zone to another being less frequently checked by the intervention of uncongenial climates. The proportion also of land to sea throughout the globe being small, the migration of marine plants is not so often stopped by barriers of land, as is that of the terrestrial species by the ocean. The number of hydrophytes, as they are termed, is very considerable, and their stations are found to be infinitely more varied than could have been anticipated; for while some plants are covered and uncovered daily by the tide, others live at the depth of several hundred feet. Among the known provinces of Algæ, we may mention, 1st, The North circumpolar, from lat. 60° N. to the pole; 2dly, The North Atlantic or the region of *Fucus* proper and *Delesseriæ*, extending from lat. 40° N. to lat. 60° N.; 3dly, That of the Mediterranean, which may be regarded as a sub-region of the *fourth* or warmer temperate zone of the Atlantic, between lat. 23° N. and lat. 40° N.; 5thly, The Tropical Atlantic, in which *Sargassum*, *Rhodomelia*, *Corallinea*, and *Siphonia* abound; 6thly, The South Atlantic, where the *Fucus* reappears; 7thly, The Antarctic American, comprehending from Chili to Cape Horn, the Falkland Islands, and thence round the world south of latitude 50° S.; 8thly, The Australian and New Zealand, which is very peculiar, being characterized, among other generic forms, by *Cystoseiriæ* and *Fuceæ*; 9thly, The Indian Ocean and Red Sea; and, 10thly, The Chinese and Japanese seas.† In

\* De Candolle, *Essai Elémén. de Geog. Botan.*, p. 45.

† I am indebted for the above sketch of distinct regions of algæ to my friend

Dr. Joseph Hooker, who refers the botanical student to the labours of Dr. Harvey, of Trinity College, Dublin.