

sitæ peculiar to the Society Islands, is related to the Sandwich Islands genera only in the sense of belonging to the same tribe (Helianthoideæ), which is eminently American; *Pelea* is represented in the Navigators Islands. These are practically all the outside affinities with the peculiar element of the Sandwich Islands flora. The smaller islands possess no endemic plants; and even the Marquesas are almost destitute of an endemic element*; and the vegetation of all the other groups of islands of Eastern Polynesia is much more largely Malayan in character. Nadeaud includes nineteen species of orchids in his enumeration of the plants of Tahiti, amongst them half a dozen epiphytal species of the genera *Bolbophyllum* and *Dendrobium*. Seventy-nine orders of Phanerogamia are represented by about 500 species collectively; but the fragmentary character of the Flora may be estimated from the fact that thirty-three of the orders are represented by only one species each. Taking all the facts into consideration, the remainder of Polynesia may be included in the Indian region.

The Fragmentary Antarctic Flora.

We retain the designation "Antarctic," first employed by Forster and adopted by Hooker †, for the coldest southern Flora, although it is not geographically an admissible term. There can be little doubt that the present scattered and isolated fragments, forming the fringe of the southern limits of phanerogamic vegetation, constitute the remnant of a Flora formerly covering a more extensive area, probably in a higher latitude. The surviving portion is poor, but from its uniform composition it is probably of remote origin ‡. Northern species are associated with such as now exist only in the south, and the same species occur in the scattered fragments of vegetation all round the hemisphere. It includes the Auckland, Campbell, and Macquarie Islands, Macdonald (Heard), Kerguelen, Crozets, and Prince Edward Islands, South Georgia and the Falkland Islands, Fuegia (Tierra del Fuego) and a small portion of South-western Patagonia. It is true that the vegetation of the Auckland group and Campbell Island is essentially New Zealand in character and relatively rich, while that of the Falkland Islands is almost wholly Fuegian; yet there is a stronger common element than was apparent when Sir Joseph Hooker wrote his 'Flora Antarctica.' In the fourth volume page 234, are tabulated the more striking connections between the Australasian and Antarctic Floras and that of the mountains of Mexico; and in the Botany of the 'Challenger' Expedition is summarized all that was known of the Botany of the Antarctic Region, and the relationships of the Australian and American Floras§. Since

* See Jardin and Jouan in Mém. Soc. Sc. Nat. Cherbourg, iv. 1856 and xi. 1865.

† Flora Antarctica, 1844-47.

‡ In a recent communication from Dr. H. P. Guppy he suggests that the vegetation of these remote islands is due to the agency of birds. Admitting the probability of such a thing, it must have happened very long ago, and not altogether in the direction indicated by him, or how is the endemic element to be accounted for? See 'Nature,' xxxviii. p. 40.

§ Introduction, pp. 50-65, and pt. 2, pp. 133-281.