

this was done the Germans have botanically explored South Georgia*, where thirteen species of flowering plants were collected, nine of which are common to the eastern part of the Antarctic Flora, from Kerguelen to the islands south of New Zealand; four of them reach New Zealand itself, and one (*Colobanthus subulatus*) the Alps of Australia.

In Fuegia the beech-woods (consisting mainly of the deciduous-leaved *Fagus antarctica* and the evergreen *F. betuloides*) are a conspicuous feature; but all the islands are absolutely treeless, except the Auckland group, where there is an arboreal Myrtacea (*Metrosideros lucida*) and two or three other large shrubs or small trees. But the beech element in the southern hemisphere is one of the most interesting, and it is very fully described by Hooker†. In the northern hemisphere *Fagus sylvatica* inhabits Europe, Asia Minor, Northern Persia, and Japan, but is not known to occur in the intervening country; and the eastern North-American *F. ferruginea* is exceedingly near it, so near, indeed, as to be regarded by some botanists as a variety. Besides these there is a Japanese species recently described by Maximowicz‡, which strongly resembles *F. sylvatica* in foliage, though it is very different in the fruit. Japan, Northern Persia, North Italy, and Florida are the southern limits of the genus *Fagus* in the northern hemisphere, where it is represented by at most three species. In the southern hemisphere, on the other hand, there are at least a dozen distinct species divided between South America, New Zealand, Tasmania, and the mountains of Victoria and N. S. Wales, with a maximum development in New Zealand and extra-tropical South-west America. In continental Australia the genus is represented by two isolated outlying endemic species, one occurring at the head of the Macleay river in about 31° of latitude, and the other on the Yarra-Yarra in about 37° 30'; and in America *F. obliqua* inhabits the Andes in as low a latitude as 33°. Between these stations and the northern ones indicated above there is no living trace of the genus§. The foregoing particulars concerning these two widely separated northern and southern races of *Fagus* are given as another illustration of the intimate relationships existing between the northern and southern Floras, because the genus is so distinct and sharply defined that there can be no question about the generic identity of the two races, and because *Fagus* is the only genus of the characteristic northern Cupuliferæ that reaches high southern latitudes. *Quercus* reaches New Guinea in the east, and Popayan (about 2° 30' N. lat.) in America. The allied Salicineæ (*Populus* and *Salix*) also do not reach

* See Engler, Jahrbücher, vii. p. 281, and 'Nature,' xxxiv. p. 106.

† Flora Antarctica, p. 345.

‡ Mélanges Biologiques, xii. p. 542.

§ *Fagus argentea* and *F. javanica*, enumerated in Steudel's 'Nomenclator Botanicus,' attributed to Blume and recorded from Java, were probably manuscript names given by Blume to some sterile specimens of *Castanopsis*. He himself does not mention them in his 'Cupuliferæ Javanicæ,' nor does Miquel in his 'Flora Indiæ Batavæ,' and it is almost absolutely certain that no species of *Fagus* exists in Java.