

Very small areas have, however, been thoroughly investigated botanically; hence we are far from knowing the extent and degree of richness of the flora.

From Engler's tabulation of Oliver's enumeration it appears that there is in W. Africa a larger proportion of endemic species, and fewer widely dispersed genera, than in E. Africa, and that there are about as many genera otherwise only represented in Madagascar and the neighbouring islands as there are in E. Africa. Further, W. Africa has more genera in common with tropical Asia than has E. Africa, which might be held as a sufficient ground for following Engler and others in regarding the tropics of the Old World as a primary region. Among Asiatic species discovered in Angola by Dr. Welwitsch was the remarkable *Naregamia alata* (Meliaceæ), previously only known from the Deccan peninsula of India. West Africa is relatively rich in genera otherwise restricted to America, though these are mostly represented by one or very few species. Many of them have seeds or fruits that float and bear long immersion in sea-water without injury, hence their presence in Africa may be due to oceanic currents; others may have been introduced with ballast. But after eliminating all these, there remain many remarkable connections between the two floras which are not so easily explained*.

Gustav Mann's botanical exploration of the temperate regions of the Cameroons Mountains in 1861 and 1862 resulted in some remarkable revelations published by Sir Joseph Hooker†. Nearly all the genera and half of the species are common to the mountains of Abyssinia, and one of the genera and many of the species are not found elsewhere. The number of European genera represented in this flora of fifty-six genera and 237 species found at elevations above 5000 feet is forty-five; thirty-eight of the genera and twenty-seven of the species are British. The South-African element is a small one, and consists almost wholly of species which also inhabit Abyssinia; it includes the genera *Anthospermum*, *Blæria*, *Ericinella*, *Peddiea*, and *Geissorhiza*.

Returning to Engler's summary, the much greater development of the Mediterranean forms is one of the most striking characteristics of the Flora of Eastern Africa, where they meet and intermingle with South-African types. More recently the mountains of eastern tropical Africa have been explored and the results given to the world‡. Mr. Thomson's Kilima-njaro and other mountain collections, more particularly referred to here, consist of 140 species belonging to 107 genera, and add no fewer than nine northern genera to the equatorial-African Flora. Altogether they contain twenty-seven genera and thirty-seven species of a northern type; and the rest are almost exclusively South-African in character, some of the species being identical—*Calodendron capense*, *Clematis thunbergiana*, and *Alepidea amatymbica*, for example. In Angola

* See Engler, 'Versuch,' ii. pp. 176–179.

† Journal of the Linnean Society, Bot. vii. pp. 171–240.

‡ See Journ. Linn. Soc., Bot. xxi. pp. 392–406, and Trans. Linn. Soc. 2nd ser., Bot. ii. pp. 327–355, tt. 60–63, Sir Joseph Hooker and Professor Oliver.