

point Dr. Schweinfurth and Dr. Bayley Balfour's botanical investigation of the island of Socotra furnishes conclusive data, collected by the latter*.

About one third of the species of flowering plants of Socotra are endemic; and a third are species belonging to tropical Africa and tropical Asia. Exclusive of species having a wider area, about eighty-five of the species of dicotyledons are common to Africa and Asia, though comparatively few of them penetrate India eastward of Scindh. The affinities of the entire Flora of Socotra are essentially tropical African and tropical Asian, but the African element predominates, and is mainly composed of the features of the Flora of the mountainous region of Abyssinia, with an infusion of West-African, South-African, and Madagascar types. Among South-African types are *Graderia*, *Babiana*, *Thamnosma*, *Lasiocorys*, and *Euryops*, of which the first two are not known to be represented in the intervening country. In this connection it may be mentioned that Dr. Aitchison discovered in Afghanistan the very distinct *Fingerhuthia*, a genus of grasses previously known only from South Africa. It was one of the most abundant grasses between Thal and Shinak in the lower Kurram valley, and presents no obvious characters to separate it specifically from *F. africana*, though Boissier has described it as a different species†.

As in the Madagascar flora, so in the Socotran, there are a very few isolated types whose nearest allies are in the New World. Balfour specially notices his new monotypic genera *Dirachma* (Geraniaceæ) and *Cælocarpus* (Verbenaceæ) as belonging to this category. The three or four Turneraceæ in Madagascar, the arboreal *Mathurina* of the same order in Rodriguez, and *Ravenala madagascariensis* are other examples; yet this element is by no means so prominent in the flora as it would appear to be in the fauna, judging from Wallace's remarks thereon‡.

To include the whole of tropical Africa in one subregion is unusual, but the facts seem to warrant this course, and the next division should be into several provinces. Interruptions in the continuity of the vegetation there are, and the forests of the eastern side of the continent are probably nowhere so rich as those of Guinea; but their composition is essentially the same. Taking the first volume of Oliver's 'Flora of Tropical Africa,' which is, of course, exceedingly fragmentary, it would appear that about one fifth of the species there enumerated are common to both sides of the continent; but subsequent investigations leave no doubt that the proportion is really much higher. Engler§ has analyzed the composition of the flora of tropical Africa as far as published in the work cited, namely the Polypetalæ and the Gamopetalæ to the end of the Ebenaceæ; but the results can only be used in respect to the general relationships. The Leguminosæ rank first and the Compositæ next in regard to number of species.

* Proceedings of the Royal Institution of Great Britain, 1883, and Transactions of the Royal Society of Edinburgh, vol. xxxi.

† 'Flora Orientalis,' v. p. 569.

‡ 'Island Life,' p. 420.

§ Versuch, ii. p. 276.