

absent orders are:—(1) Resedaceæ, (2) Vochysiaceæ, (3) Frankeniaceæ, (4) Elatineæ, (5) Chailletiaceæ, (6) Santalaceæ, and (7) Gnetaceæ. Of these the first is probably not represented in America by any indigenous species; the second and fifth are tropical extensions into Guatemala; and the remaining four, which are known to exist in North Mexico, though very small groups, are widely spread, and may yet be found in South Mexico. Nearly 78 per cent. of the genera known from the three provinces occur in South Mexico, and more than 65 per cent. of the species; and as a more exact investigation is likely to raise rather than lessen these totals, it may safely be inferred that this is one of the densest concentrations of plants in any part of the world where the greater part of the area is within temperate regions. The numbers of orders and genera exceed those for the whole of Australia, and the number of species is within 500 of the total known to inhabit Australia in 1881*.

The orders absolutely or relatively (that is in relation to the whole order) numerous either in genera or species, or both, are:—Polygalaceæ (30 sp.); Malvaceæ (20 gen., 110 sp.); Malpighiaceæ (13 gen., 55 sp.); Burseraceæ (27 sp.); Sapindaceæ (14 gen., 57 sp.); Leguminosæ (84 gen., 564 sp.); Rosaceæ (21 gen., 72 sp.); Crassulaceæ (47 sp.); Melastomaceæ (22 gen., 82 sp.); Lythraceæ (65 sp.); Onagrarieæ (11 gen., 68 sp.); Loasaceæ (5 gen.); Passifloraceæ (39 sp.); Cucurbitaceæ (22 gen., 74 sp.); Begoniaceæ (46 sp.); Cactaceæ (370 sp.); Compositæ (157 gen., 977 sp.); Asclepiadeæ (17 gen., 100 sp.); Gentianaceæ (10 gen., 43 sp.); Polemoniaceæ (5 gen., 14 sp.); Hydrophyllaceæ (4 gen., 18 sp.); Convolvulaceæ (108 sp.); Solanaceæ (18 gen., 162 sp.); Scrophularineæ (33 gen., 104 sp.); Gesneraceæ (12 gen., 49 sp.); Acanthaceæ (29 gen., 110 sp.); Verbenaceæ (16 gen., 69 sp.); Labiatae (23 gen., 200 sp.); Nyctagineæ (10 gen., 26 sp.); Piperaceæ (136 sp.); Loranthaceæ (42 sp.); Euphorbiaceæ (25 gen., 259 sp.); Urticaceæ (21 gen., 89 sp.); Cupuliferæ (72 sp.); Orchideæ (82 gen., 504 sp.); Bromeliaceæ (64 sp.); Amaryllideæ (12 gen., 128 sp.); Dioscoreæ (20 sp.); Liliaceæ (73 sp.); Palmæ (12 gen., 50 sp.); Aroideæ (45 sp.); Cyperaceæ (170 sp.); Gramineæ (91 gen., 454 sp.); and Filices (42 gen., 379 sp.).

It has already been explained (page 307) how the number of Cactaceæ and other succulent plants attributed to this province may have been augmented at the expense of North Mexico. With these probable exceptions, the foregoing figures are as accurate as could be desired, and betoken an extraordinary richness and plasticity in the flora. Setting aside those characteristic of a dry climate, we find evidence of an enormous development in certain groups of plants which flourish only where there is considerable humidity. These are the plants that inhabit the eastern slopes and ravines, and constitute what we should call the special flora of this province, in contradistinction to the southward extensions of the North-Mexican flora. We rank this as a distinct floral province, and it is perhaps the more convenient and logical course that we could adopt; yet here northern and southern types meet and commingle in a most

* Engler, Versuch, ii. p. 34.