the four regions is 28.8 per cent., while for the other ten regions, all but one of which contain at least one genus of this class, average 6.5 per cent. These numbers are easily compared with those for all plants. It will be observed that while the average per cent. of endemic apically dehiscent genera is 16.9 for the four regions, and .9 for the ten others, for all endemic genera the average is 10.8 and 2.6 per cent. respectively. Thus, in regions 3, 4, 6 and 7 the relative abundance of the Solanum-Cassia type may be expressed as +5.6 and for the other ten as —1.7. Comparing the relative abundance of all genera occurring, we find that for the four regions it may be represented by +4.5, while for the other ten regions it is —3.3. While the Solanum-Cassia type is abundantly represented in the Indian region, the per cent. of endemic forms and all forms of this type occurring there is something more than one less than the per cents of all the genera of flowering plants which are found in the flora. Next to the tropical American region the flora of the Indian region is the richest of the fourteen regions recognized, and the abundance of the Solanum-Cassia type there seems to be due rather to the richness of the whole flora than to any special conditions favouring its development. Considering only the three regions, 4, 6 and 7, we find that the average per cent. of genera of the Solanum-Cassia type endemic is 18.6, while for the other eleven regions it is 1.9. For all genera of the Solanum-Cassia type occurring, the three regions average 29.3 per cent.. while the other eleven regions average 8.4 per cent. Comparing these figures with those obtained for all genera of plants, we find that in the tropical American, Australian and extra-tropical South-American regions the per cent. of apically dehiscent genera endemic in the several regions is 8.3 more than that for all genera, while in the other eleven regions it is 1.7 less, and for all apically dehiscent genera of the Solanum-Cassia type occurring the per cent. for the three regions averages 10 more than that of all forms, while for the other regions it averages 3.1 less.

The present work is essentially a comparison of the distribution of floral structures, but these floral structures are thought to be adaptations to a factor in the environment, which so differs in potency in the several regions under consideration as to bring about a difference in the frequency of occurrence of these floral types.

In a problem of biogeography which involves taxonomic, morphological and ecological considerations,it is difficult to decide just what shall be the basis for comparison. The characteristics of genera probably furnish most satisfactorily the morphological units which we seek, but ecologically the importance of the genus in the flora may be vastly increased by specific differentiation.

Without attempting any comparison with the number of species of the whole flora, we may examine the distribution of the species of the Solanum-Cassia type. The differentiation of Solanum and Cassia in tropical South America first called attention to the distributional phase of