The flora of the Arrou Islands is absolutely Papuan, and although so poor, it possesses a certain interest, because the means by which the islands were supplied with plants are evident. A large proportion of the species have fleshy fruits, which are eaten by birds, especially pigeons, which have perhaps contributed more than any other animals to the diffusion of plants. And it is noteworthy that the majority of the birds of Arrou are carpophagous. Cassowaries, too, are active agents in dissemination, for they swallow every kind of pulpy fruit, and with the swiftness of a horse convey them long distances undigested; they are also excellent swimmers, and traverse considerable expanses of water. The plants growing near the sea are spread throughout the Malayan Archipelago and New Guinea, and the fruits of nearly all are spongy or corky, and float from place to place on the surface of the water, and are cast ashore all round the coast. Some of the plants growing in the interior also have fruits of this nature, and are thus easily transported. Among plants whose seeds may be conveyed by winds only Asclepiadeæ were observed.

Setting aside the possibilities of seeds being occasionally conveyed long distances by birds at one stage, there remains the probability of a species being disseminated by birds, not necessarily of the same kind, by degrees, and in various directions. Of the kinds of seeds that might be conveyed by the sea and birds, in various ways, there seems almost no limit. The evidence afforded by the available data is far too incomplete for any generalisation; but members of the most different natural orders occur in oceanic floras, which, perhaps, more than any others, owe their existence to the agencies in question. Whether the present distribution of *Phylica nitida* (see Part II., p. 148) was brought about by the agency of birds is highly problematical. The distribution of the genus, like that of many others of the African region, points rather to a former greater land-connection. Dr H. B. Guppy, however, hazards the suggestion (Nature, xxvi. p. 12) that seeds might be transported from South Trinidad to Amsterdam Island, a distance of between 5000 and 6000 miles! One thing specially noticeable of the majority of the plants, concerning which we have certain evidence that their present areas are in part, at least, due to oceanic currents, is, that they have either exalbuminous seeds, or, if albuminous, the albumen is oily; yet Darwin proved that the seeds of various Gramineæ which have farinaceous albumen, will bear two or three months' immersion in sea-water without losing their germinative power. Another point to be considered is, whether very many of the common plants which are littoral throughout a great part of their present areas, are essentially littoral, or only accidentally so, in consequence of their seeds being conveyed uninjured to distant shores, where they are able to thrive. Some of them also occur inland, at remote distances from the sea, in localities where there is a minimum of salt in the soil, while others flourish wherever they are planted. An examination and fuller discussion of various agencies in plant dispersal will be found in our general Introduction.