

enumerates are *Cassia fistula*, *Anacardium occidentale*, *Cucurbita lagenaria*, *Mimosa scandens*, *Piscidia erythrina*, and *Cocos nucifera*. This is the only record that has come under our observation of the cocoa-nut being washed ashore in Europe, for Linnæus merely repeats this; but it is probably of no rare occurrence, considering the vast quantities that are brought hither; and those found on the Norwegian coast were almost certainly from a wrecked ship, or had been cast or washed overboard. Linnæus, too, mentions, among the various means by which the geographical areas of plants are extended: "Oceanus, modo nondum cuiquam cognito, semina *Cassie fistulæ*, *Anacardii occidentalis*, *Mimosæ scandentis* [*Entadæ scandentis*], et *Cocos nuciferæ* ad littora usque Norvegiæ volvit, eaque, quod miraberis, adeo vegeta, ut terræ mandata germinent ac crescant."¹ The first of these four plants was raised by Martins² from seed stranded on the shore of Montpellier in 1856; but, as that author observes, the seeds are in separate compartments, which are apparently water-tight, and they are thus protected from the influence of the sea-water. Several other instances might be cited of plants having been raised in Europe from seeds which have traversed the Atlantic, but sufficient have been given for the purpose.

Chamisso seems to have been one of the first to record the fact³ that foreign seeds are cast ashore in a living state by the waves in various parts of the world. As cited by Darwin,⁴ he says of the Radack Archipelago, North-western Polynesia: "The sea brings to these islands the seeds and fruits of many trees, most of which have not yet grown here. The greater part of these seeds appear to have not yet lost the capability of growing." And in another place he speaks of the vast quantity of vegetable matter observed drifting in the sea in various parts of the Malayan Archipelago, naming several plants whose seeds or seed-vessels were prominent in this drift. As they are all included or incidentally mentioned in the following enumeration, it is unnecessary to give further particulars here.

Gaudichaud is another botanical traveller who paid special attention to littoral vegetation and floating vegetable matter. In the Botany of the Voyage of the "Uranie" and the "Physicienne,"⁵ he devotes nearly 150 pages to general observations on the nature and composition of the vegetation of the various places visited during the course of the expedition; and, as already mentioned in the Introductory Notes of the Report on the Botany of the Admiralty Islands, several islands were visited in the extreme west of Polynesia and the east of the Malayan Archipelago, which still remain imperfectly known. He dwells particularly on the magnificent vegetation of the Moluccas, which, he says,

¹ *Coloniæ Plantarum, Amœnitates Academicæ*, viii. p. 3.

² *Experiences sur la persistance de la vitalité des graines flottant à la surface de la mer*, Bulletin de la Société Botanique de France, iv., 1857, p. 325.

³ Kotzebue's *First Voyage*, iii. p. 155.

⁴ *Journal of Researches*, ed. 1884, p. 455.

⁵ *Voyage autour du monde, exécuté sur les corvettes de S.M. l'Uranie et la Physicienne, pendant les années 1817, 1818, 1819, et 1820*. Botanique, pp. 1-146.