

which vegetable rubbish is cast ashore in large quantities, the waves and the wind combined project light objects, and heavy ones too, for that matter, to a considerable distance beyond the reach of the tides. De Candolle further urges, that admitting a seed having been conveyed to a shore, distant from its original home, and having there germinated, the chances of its not being scorched up by the sun, destroyed by animals, or choked by the shade and roots of plants already in possession of the soil, are exceedingly small. Granting the full force of this remark, there is still something to be said of the chances of escape, and this effected, the astonishing reproductive power developed by some plants when first transported to a foreign soil would give such invaders an advantage over the native plants, and they might in this way soon become more prominent than many of the older inhabitants.

It will be understood that we are not attempting to prove that the sea has been the principal agent, or indeed anything more than quite a subordinate agent, in bringing about the present distribution of plants. Further than this, the action of oceanic currents and birds of passage combined is, in our opinion, insufficient to account for the presence of certain elements in the vegetation of many oceanic islands.

In addition to Mr Moseley's collection of drift-seeds and seed-vessels and records of stranded seeds and plants, and the various other sources of information alluded to in the foregoing paragraphs, there has quite recently been received at Kew, from Mr Morris, Director of Public Gardens and Plantations, Jamaica, a collection of seeds and fruits washed ashore at the Palisadoes Plantation, Jamaica. Combined, these collections will give some idea of what is at present known concerning the dispersion of plants by oceanic currents; and it may also be the means, perhaps, of inducing persons who have opportunities for observing facts connected therewith to put them on record. The collection from off the coast of New Guinea is of as much interest as a specimen of the flora of New Guinea, as it is in relation to the distribution of plants.<sup>1</sup> It is now so long since it was made, that the notes on the state of the various objects may be very wide of what it was when they were taken ten years ago. Moseley describes meeting with the driftwood, &c., in the following words:<sup>2</sup>—

“On February 22, 1875, at noon, the ship was about seventy miles north-east of Point D'Urville, New Guinea, where the great Ambernoh River, the largest river in New Guinea, runs into the sea. This river probably rises in the Charles Lewis Mountains, on the opposite side of New Guinea; these mountains reach up to the great altitude of 16,700 feet. So large is this river, that, even at this great distance from its mouth, we found the sea blocked with driftwood brought down by it. We passed through long lines of driftwood, disposed in curves at right angles to the direction in which lay the river's mouth. The ship's screw had to be constantly stopped for fear it should be fouled by the wood. The logs had evidently not been very long in the water, being covered only by a few

<sup>1</sup> See Narr. Chall. Exp. vol. i. pp. 679, 680, 1885.

<sup>2</sup> Notes by a Naturalist on the Challenger, p. 432, *et seq.*