

and white sandal, the yellow wood, or *Fagus lutea*,¹ and a tree whose genus I am unacquainted with, that produces a species of pepper² inferior to that of the East Indies." Beyond this general statement he says nothing, so that we have no evidence that there were living sandalwood trees in the island at the beginning of the present century; but the inference is that there were. Nevertheless, it would seem that nothing except specimens of the wood exist in any Natural History collection. In 1830 Bertero specially searched for it, though in vain. There was still plenty of decayed, half buried trunks. Gay³ has a definite statement to the effect that it was all completely destroyed, or rather perished, in one and the same year, but he does not cite his authority for it. His words are: "En o tro tiempo [el Santal] era muy comun en la isla de Juan Fernandez, pero perecieron todos en un mismo año y hoy no se encuentra sino troncos muertos; lo mismo sucedió en Inglaterra con el Plátano en el siglo 18." We are left to guess by what agency the sandalwood trees were destroyed, and as he cites the destruction of the true occidental plane in England as a parallel case, it might be supposed that excessive cold was the real or suspected agent. But such an event seems so very improbable that we shall dismiss it without further discussion. It is true that *Santalum album* inhabits a warmer climate, but, as Philippi remarks,⁴ the Juan Fernandez sandalwood was almost certainly a different species, and most likely peculiar to the island. The Sandwich Island sandalwood (*Santalum freycinetianum* and *Santalum pyrularium*) and the Fiji sandalwood (*Santalum yasi*) are quite distinct from the tropical Asian *Santalum album*. Yet, as already observed, there is no proof that the Juan Fernandez sandalwood was a *Santalum*. Assuming it to be a species of *Santalum*, it would, in the present distribution of the genus, be a very remote outlier. Unfortunately, there is no specimen of the wood at Kew, so there is no opportunity of examining its structure and comparing it with other kinds of sandalwood. In the place cited above, Philippi states that in 1856 there were still many portions of trunks of sandalwood scattered about the island up to the highest summits of the cliffs, but so weather-worn that only the heart-wood remained. Such a fragment was in the museum at Santiago indicating a tree two feet in diameter. Now, *Santalum album* never, we believe, attains such large dimensions; a diameter of eighteen inches being very uncommon even where it grows most vigorously. Respecting the extinction of the Juan Fernandez sandalwood tree, Philippi says he is utterly unable to account for it. A volcanic disturbance would not single out a certain species, but destroy whole forests; and then it is quite inconceivable that the seed in the ground could be killed by such an agency. He further states that the pieces of sandalwood found in the island often exhibit holes, which are evidently the work of the larva of some Goat-chaffer; but at the present time there are no traces in the island of a Goat-chaffer of so large a size. The agent of destruction will probably remain unknown, as also of the innumerable dead prostrate trees observed in South Trinidad by Dr Copeland. A

¹ *Zanthoxylum mayu*.—W. B. H.

² *Lactoris fernandezia*.—W. B. H.

³ Flora Chilena, v. (1849), p. 326.

⁴ *Botanische Zeitung*, 1856, p. 635.