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DEPARTMENT OF LANDS :  
A BOTANICAL EXAMINATION OF THE HIGHER  
WAIMARINO DISTRICT

(REPORT ON), BY E. PHILLIPS TURNER.

*Presented to both Houses of the General Assembly by Command of His Excellency.*

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SIR,—

Department of Lands, Wellington, 4th May, 1909.

I have the honour to submit herewith a report upon a botanical examination of the Higher Waimarino District by Mr. E. Phillips Turner, Inspector of Scenic Reserves.

I have, &c.,

WM. C. KENSINGTON,  
Under-Secretary.

The Right. Hon. Sir Joseph G. Ward, P.C., K.C.M.G., Minister of Lands.

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REPORT.

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THE Waimarino district may perhaps be said to comprise all that extensive area of forest land and open plain that lies between the Wanganui River on the west and north, Ngauruhoe and Ruapehu volcanoes on the east, and the Karioi-Pipiriki Road on the south, and contains about eleven hundred square miles. This large area, ranging from a few hundred feet above sea-level to over four thousand, probably contains most of the plants represented in the central botanical province of New Zealand; so in my present observations I propose to deal only with that part lying above 1,000 ft. above sea-level, specimens of which are included in the scenic reserves along the North Island Main Trunk Railway; and I hope later on to deal with the low-lying area when reporting on the reserves that are to be cut out along the Wanganui River.

At the height of about 1,000 ft. above sea-level the plant association may be said to be that of the Rotorua plateau, rimu, matai, totara, and white-pine being present to such an extent that the forest might be termed a taxad forest; miro is also present to a lesser extent on the spurs. The soil is a light pumice, and in this the taxads seem to master other competitors in life's struggle. At Kakahi I was particularly struck by not only the number of taxads, but also by their unusual size. The greatest height so far given for the kahikatea (*Podocarpus dacrydioides*) is 150 ft., but I had one measured there which went 196 ft., and there were others that looked as tall.

The smaller trees of this taxad forest are tawa (*Beilschmiedia tawa*), hinau (*Elaeocarpus dentatus*), white maire (*Olea lanceolata*), rewarewa (*Knightia excelsa*), mahoe (*Melicytus ramiflorus*), horopito (*Drimys axillaris*), rangiora (*Brachyglottis repanda*), patete (*Schefflera digitata*), titoki (*Alectryon excelsum*), houhou (*Panax arboreum*), raurekau (*Coprosma grandifolia*), lancewood (*Pseudopanax crassifolium*), tawhero (*Weinmannia sylvicola*), and toro (*Myrsine salicina*). On the margins of the forest tarata (*Pittosporum eugeniioides*), tawhiri (*Pittosporum tenuifolium*), makomako (*Aristolia racemosa*), houhere (*Hoheria populnea*), and fuchsia (*Fuchsia excorticata*) are the prevailing plants. Lianes are plentiful: *Metrosideros hypericifolia* is seen frequently quite clothing the trunks of tree-ferns and the