

banks of the Waitahi, in Westland. The almost total absence of the *Weinmannia racemosa*, so frequently confounded with *F. fusca*, with which it is generally found growing, was also noteworthy. Descending on the north-east side of the Hope Saddle the forest gradually improves, and there is some fine black pine and red pine and pokako (*Elæocarpus Hookerianus*) in quantity.

Crossing Spooner's Range, we observed *Celmisia spectabilis* and *coriacea* and *Gentiana pleurogynoides*. After a short trip to the Wairoa I went to Waitapu and the Takaka Valley, where the growth of pines is very fine, but almost all the forest has become freehold. Returning to Nelson, I proceeded through the Rai Valley to Pelorus and Havelock. Subsequently I visited the Sherwood Forest, extending over an area of ten to twelve thousand acres, situated between the Waiau and Conway Rivers. The prevailing timber is beech (*F. Solandri*), with some pine in the hollows; the latter is not of much value, but the tract will probably form a suitable and necessary reserve for climatic considerations and supply of sleepers, should the railway pass through or near it. Considerable damage has been done by fires, which must be guarded against. I also saw something of the extensive plantations on the Culvedon, St. Leonards, Hawkwood, and Cheviot Hills runs, the latter being, both as regards extent and variety, the finest I have seen in the colony. During my stay in Nelson I had several interviews with Mr. Curtis and the Commissioner of Crown Lands, and consulted with them in forest matters.

Marlborough.

10. Coming from Nelson, I was advised to proceed by the Rai Valley to Pelorus, and I am glad to have had an opportunity of doing so. Mr. A. Collins, who knows that part of the country probably better than any one else, was unfortunately absent, but I afterwards met him at the Kaikouras. The forest in the Rai Valley is chiefly beech, all three varieties (*F. fusca*, *Menziesii*, and *Solandri*) being represented. There is also a considerable quantity of red pine (*rimu*) and totara and black (called here *red*) and white pine in some places. The forest is certainly better on the Marlborough side of the dividing range than on the Nelson side, and between the Pelorus River and the sea there is evidently some very fine forest still untouched, and said to contain much totara. This tract is, I believe, still in the hands of Government, and no portion should be alienated without mature consideration and an adequate return, as I am informed that timber in the Pelorus Valley realizes even now more per acre than the original cost of the land and forest.

There is also some fine forest in the right bank of the river after leaving the accommodation house at Pelorus Bridge, which I make forty miles from Nelson, *viâ* the Rai Valley, identical, I believe, with Dr. Hector's estimate; but I am given to understand that all this, as well as that beyond Havelock in the neighbourhood of the large saw-mills there, is private property.

After visiting Havelock, I met the Commissioner of Crown Lands at Blenheim, and Mr. Seymour at Picton, and talked over the objects and prospects of State forest conservancy with them. I then visited the Kaikouras and inspected some of the forest (private property) in the neighbourhood of the only saw-mill now working. The white pine here is particularly fine, being hard and close-grained, quite a different wood from the timber of the same species growing in swampy and low-lying places.

The forest generally is patchy and very uneven, but there is a considerable area which would yield an average return round the base of the hills, and doubtless in some of the gullies further in. Some miles to the northward of the saw-mill there is said to be a very fine patch of virgin totara forest, which unfortunately the time at my disposal did not admit of my visiting. It is said to be accessible by a creek which runs into the sea, and will doubtless form a valuable reserve for future supply. Messrs. Keene and Bullen have both planted a good deal with tolerable success, the latter both at his station in the neighbourhood of the Kaikoura Township and at the Green Hills. The rabbits, which are very abundant, prove of course serious enemies to the young trees.

18. In the foregoing record of inspections I have avoided detail as much as possible, merely endeavouring to give a good general idea of my route, and what I saw and remarked of the forests on it. The inspections were of course merely preliminary, and undertaken with the object of giving me a good general idea of the forests in different localities and their general capabilities, leaving all detailed inspections to a future date, when, if the proposals for a State Forest Department are entertained and general principles laid down, days and weeks will have to be spent in each locality instead of minutes or hours.

The general conclusions arrived at may be briefly summarized here. There is no prospect of a dearth of timber, or injurious effects from clearing for the present or in the immediate future throughout the colony, except in the Canterbury plains, the Otago gold field district, and perhaps the Waikato. The forest, both as regards quantity and quality, is, as usual, very unequally distributed in both islands, and we would naturally like to be able to remove a few thousand acres from one locality to another—from the West Coast to Canterbury, for instance. Still, prevailing rates for building timber, even in the denuded districts, are very low compared with those of other countries, and the supply appears more than equal to the demand. None the less does it appear to me incumbent on the Government to take early steps to secure adequate reserves for future supply and climatic considerations, reduce waste to a minimum, and secure a proper share of public revenue from the valuable wooded area remaining in its hands, a portion of which it can devote to replanting denuded hill-sides and plains destitute of timber. By this means we shall virtually transfer the wealth of timber from places where it is superfluous to where it is most required, and benefit both localities both directly and indirectly by doing so. Nor must it be supposed that, although the supply of timber for the present is ample, it is by any means inexhaustible. No forest is inexhaustible unless systematically worked on principles which insure the capital not being trenced upon and the income alone utilized; and, in the case of the valuable kauri forests of the North, the date at which this exhaustion or annihilation will have become an accomplished fact may almost be set down as within the present generation. With a large export, both intercolonial and foreign, great waste in what the French style "exploitation" and conversion, and no attempt at reproduction, Nature's efforts at which are frustrated by fire, the end is not far to seek. Kirk puts it down at forty years, and I am not sure that he is not beyond the mark.