

DESCRIPTION AND PROPERTIES OF NEW ZEALAND TIMBERS.

54. Under this section I think it better merely to reprint for the most part Mr. Kirk's "Report on the Durability of New Zealand Timbers in Constructive Works," which we have thoroughly revised and added to. But little if any new and reliable information has been, so far as I am aware, collected since Mr. Kirk wrote in 1875. Mr. Blair, C.E., has written a paper on the timbers of Otago; and Dr. Hector informs me that he has furnished a paper in connection with the Philadelphia Exhibition on the New Zealand timbers exhibited there. Neither has, however, yet been published.

55. I have endeavoured to give a general description of the several timber trees in the first section ("General Distribution of Forests") of this chapter, and submit also classified lists of the timber trees with their systematic native and settlers' name. For facility of reference, I have also inserted the name of the family to which each belongs. Mr. Kirk's English nomenclature for the three beeches (*F. fusca*, *Menziesii*, and *Solandri*) is retained, though I am not sanguine of its ever being generally adopted. It is, however, impossible, to identify them by the usual settlers' names of black, red, and white birch, which are applied sometimes to one and sometimes to another, and frequently, as Mr. Kirk points out, to totally different trees, such as *Pittosporum* and *Weinmannia*. Doubtless this has gone a great way to detract from their value, especially that of *F. fusca*, as a most durable timber.

56. I reprint also, at the close of this section, Mr. Kirk's remarks "On the Best Season for felling Timber in New Zealand," as I fully concur in his conclusions, and consider the point one of great importance both to the producer and consumer. I refer again to this point in the section devoted to a consideration of the present system, &c.

57. A collection of dried specimens, in illustration of the report and of some points of interest indirectly connected therewith, has been forwarded to the Colonial Museum.

CLASS I.

TIMBERS of GREAT DURABILITY, adapted for GENERAL BUILDING PURPOSES or Constructive Works, &c.

A.—For General Building Purposes.

Systematic Name.	Family.	Native Name.	Settlers' Name.
1. <i>Dammara australis</i> , Lam.	Coniferae ...	Kauri ...	Kauri.
2. <i>Podocarpus Totara</i> , A. Cunn.	"	Totara ...	Totara.
3. " <i>spicata</i> , Br.	"	Matai ...	Black pine.
4. <i>Libocedrus Doniana</i> , Endl.	"	Kawaka ...	Arbor vitæ.
5. " <i>Bidwillii</i> , Hook. f.	"	Pahautea ...	Cedar.
6. <i>Phyllocladus trichomanoides</i> , Don.	"	Tanekaha ...	Celery-topped pine.
7. <i>Dacrydium Colensoi</i> , Hook.	"	Manoao ...	Manoao.
8. " <i>Westlandicum</i> , n.s.	"		Westland pine.
9. " <i>intermedium</i> , n.s.	"		Yellow silver pine.
10. <i>Fagus Menziesii</i> , Hook.	Cupuliferae ...	Tawai ...	Round-leaved beech

B.—For Constructive Works or Special Purposes.

11. <i>Vitex littoralis</i> , A. Cunn.	Verbenaceæ ...	Puriri ...	New Zealand teak.
12. <i>Fagus fusca</i> , Hook. f.	Cupuliferae ...	Hutu tawhai ...	Tooth-leaved beech.
13. <i>Metrosideros tomentosa</i> , A. Cunn.	Myrtaceæ ...	Pohutukawa ...	Pohutukawa.
14. " <i>robusta</i> , A. Cunn.	"	Rata ...	Rata.
15. " <i>lucida</i> , Menzies	"	Rata ...	Ironwood.
16. <i>Leptospermum ericoides</i> , A. Rich	"	Rawiri ...	Tea-tree.
17. <i>Sophora tetraptera</i> , Aiton	Leguminosæ ...	Kowhai ...	Kowhai.
18. <i>Olea apetala</i> , Vahl	Jasmineæ ...	Maire raunui ...	Black maire.
19. <i>Eugenia Maire</i> , A. Cunn.	Myrtaceæ ...	Maire tawhake ...	Maire tawhake.

1. KAURI.—(*Dammara australis*.)

The kauri is the finest tree in New Zealand, and produces the most valuable timber. It is restricted to the northern part of the North Island, and does not occur in any quantity south of a line drawn from Port Waikato to Tauranga, although solitary trees or small groups are found as far south as Maketu on the East Coast, and Kawhia on the West. It attains the height of 120 to 160 feet, and upwards: clean symmetrical trunks may be seen from 50 to 80 or even 100 feet in length, varying 5 to 12 feet and upwards in diameter. The timber has acquired a reputation above all other New Zealand kinds from its value for masts, spars, and other purposes of naval architecture, which, about the commencement of the present century, led to its being exported for use in the British dockyards.

Except for general building purposes, its use has been chiefly confined to the North Island, where there is abundant evidence of its durability for more than thirty years in some of the old mission buildings at the Bay of Islands, the weather-boarding of which exhibits no signs of decay. The same must be said of some of the oldest houses in the city of Auckland and in other parts of the province, although I have been unable to obtain trustworthy evidence of their existence for more than twenty-three or twenty-four years, as in all the towns most of the old buildings have been removed to make way for improvements.

Kauri has been employed, in conjunction with totara, for the upper timbers of the Auckland Wharf, the largest work of the kind in the colony, and with most satisfactory results. Braces, stringers, and tie-beams are in good condition after being eighteen years in use. The greater portion of the old Wynyard Pier was recently removed in the formation of the Waikato Railway, when many of the timbers were found sound, although others were much decayed, after fully twenty-three years' service.