

Material may be sent dry, or in formalin. Ask Professor Lancaster or Mr. Millener to explain how to take care of it. If you take a few scrapings from the College walls themselves you may find some of the very rare and beautiful forms that so excite Dr. Conger's interest. Then, there are find diatoms to be found in seaweeds - the reefs round Auckland might be tried. He tells me that New Zealand is the one country he would like to work in, and that is something from a man who has had collections from all over the world....I noted that he had worked on the Mawson and Byrd collections, for instance.

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On Wednesday, September 6th, 1944, Mr. A.C. Caldwell gave us a most interesting lecture on "Timber Trees". Mr. Caldwell went to considerable trouble to collect facts and figures for our consideration, and has now kindly summarised these for us.

THE GYMNOSPERMS: Although the Gymnosperms are more primitive than the much more varied and numerous Angiosperms, they are of much more importance to mankind as timber trees, and are still dominant over large areas of the temperate zones.

The ORDER Coniferae, with its 33 GENERA and 350 SPECIES, provide all the "soft-woods" of commerce.

In New Zealand, 97% of the timber milled in the season 1939-40 was from coniferous species, and of this 83% was from native, and 14% from exotic trees.

More complete figures, showing the amounts of the principal species milled in that year, are given in the following table.

Common Name	Botanical Name	Superficial Feet	Per cent of total
Rimu	Dacrydium compressinum	207,097,000	61.65
Pine	Pinus insignis (radiata)	46,672,000	15.95
Kahikatea	Podocarpus dacrydioides	33,045,000	9.84
Matai	Podocarpus spicatus	21,212,000	6.31
Totara	Podocarpus totara	10,882,000	3.25
Beech	Nothofagus species	9,008,000	2.68

Common Name	Botanical Name	Superficial Feet	Per cent of total
Kauri	Agathis australis	5,065,000	1.51
Miro	Podocarpus ferrugineus	1,084,000	.32
Tawa	Beilschmiedia tawa	459,000	.14
Douglas Fir	Pseudotsuga douglasii	391,000	.12
Bluegum	Eucalyptus species	349,000	.10
Rata	Metrosideros species	110,000	.03
Tanekaha	Phyllocladus trichomanoides	110,000	.03
Poplar	Populus species	82,000	.02
Macrocarpa	Cupressus macrocarpa	66,000	.02
Mangeao	Litsea calicaris	57,000	.02
Taraire	Beilschmiedia taraire	44,000	.01
Puriri	Vitex lucens	38,000	.01
Rewarewa	Knightia excelsa	23,000	.01
Maire	Olea species	18,000	.01
Other species unspecified		91,000	.03
		<u>335,991,000</u>	<u>100.00</u>

How our native forests have dwindled is shown by the estimated areas under forest at intervals up to 1939.

1847	27,600,000	acres
1869	23,500,000	"
1886	21,200,000	"
1893	20,500,000	"
1909	17,000,000	"
1923	12,600,000	"
1939	8,350,000	"

The areas of exotic forests in the same year amounted to about 872,000 acres, planted roughly half by the state, and half by commercial concerns.

The areas of the various exotic species planted are :

(See next page)

Species	State	Commercial	Total	Per Cent
Pinus radiata (insignis)	176,000	279,000	455,000	60.2
Pinus ponderosa Western yellow pine	73,000	19,000	92,000	12.2
Pinus laricio Corsican Pine	57,000	-	57,000	7.5
Pseudotsuga taxifolia Douglas fir	43,600	1,200	44,800	6.0
Pinus murrayana Lodgepole pine	17,000	-	17,000	2.3
Larix decidua	7,800	-	7,800	1.0
Pinus muricata	5,000	-	5,000	.6
Thuja plicata	4,700	-	4,700	.6
Cupressus lawsoniana	4,600	-	4,600	.6
Sequoia sempervirens	4,500	-	4,500	.6
Miscellaneous and mixtures	52,800	11,053	63,853	8.4
	<u>446,000</u>	<u>310,253</u>	<u>756,253</u>	<u>100.0</u>

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Miss B. Menzies of the Auckland University College is at present carrying our research work in the Botanical Department on Loranthus micranthus, one of our native mistletoes. This plant, true to the traditions of its rapacious family, obtains its nourishment by sheer shameless robbery. Instead of growing roots and obtaining its own food from the soil, it settles upon a tree, penetrates its living tissues, and serenely helps itself to its host's food. But like some other villains, Loranthus is not without interest, and Miss Menzies is particularly anxious to find out the details of its privateering. In order to discover the exact means by which it penetrates the tissues of the host plant, she would like young plants at different stages of development. She has been able to secure a number of adults, but so far has been unable to find young ones. It is here that the Botanical Society may help! Loranthus micranthus, belongs to a large tropical genus of 350 species or more. It is rarely found in temperate regions, and we in New Zealand have only one species which is endemic. It is a perfectly smooth, bushy shrub, from 2 - 5 feet high. The leaves are $1\frac{1}{2}$ to 3" long, thick and leathery, oblongish, rounded at the tip. They have stalks about $\frac{1}{3}$ " long and grow exactly opposite each other on