

Our best wishes to Mr. L.H. Millener who has left us for two years to carry out research work at Pembroke College Cambridge. Mr. Millener, who is one of our foundation members will be much missed but our regret will be tempered by the thought that he will return in due course "bearing his sheaves with him". In any case we are very glad that one who has always spent himself so strenuously and unselfishly on other people's work, should at last have an opportunity of giving undivided attention to his own!

While Mr. Millener is in England his place will be taken by Dr. Sutherland, at one time Professor of Botany at Southampton University and for many years engaged in important Botanical work for the Ministry of Education in England. Dr. Sutherland is not only a very keen botanist but also a very keen horticulturist. In England he specialised in rock gardening and at one time his rock garden boasted 400 different species of rock plants. Dr. Sutherland is particularly interested in the lower plants, although "all's fish that comes to his net." A keen field Botanist, he has already joined our Society where his geniality and enthusiasm will make him a valued member. We take this opportunity of extending to him and to Mrs. Sutherland a most hearty welcome.

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#### SOME GROWTH NOTES OF NATIVE TREES

Many native trees, especially conifers, have been cultivated in private gardens in this country during the last 50 years. Yet it is often difficult to obtain accurate information about them, as records so easily become lost. Members are invited to send in notes to the editor about any native trees of which the growth history is known. These can be inserted in the newsletters and a permanent record is then made.

Below is a note on totara sent in by a new member, Mr. V. Thomson, formerly of Dunedin:

"A totara tree was planted by my late father in the winter of 1908, on the south side of my then home at Gladstone Road, Dunedin North. It was a two year seedling, wrenched after the first year to facilitate transplanting." He goes on to say

that "for the first twenty-five years growth was very slow, and at the end of that period I doubt if it was ten feet high." After this, however, the rate of growth was very fast. Present measurements, taken 20/11/47 are : Height -16ft. 6 inches  
Girth 6 ins. from ground -  
21½ inches.

"There is one factor which may have had some influence on the slow rate of growth in the early years: Owing to the position being on a small flat at the bottom of a bank, the tree would receive no sun at all until it had grown to at least eight feet high, and even then it would receive only the late afternoon sun on its upper branches. Furthermore the small flat on which it was planted was very damp, for it received the surface water from the land between it and the road at the back, a distance of approximately 100 feet."

"In the winter of 1939 I planted six 2 years old totara plants on the same property, but on a sunny slope. On the 20th November 1947 these trees were measured and measurements ranged from 6 ft. to 6 ft. 3 inches in height, with a girth 6 inches from the ground of from 3 to 3½ inches. These two-year old seedlings, wrenched after the first year, came from Duncan and Davies, New Plymouth."

"The hills in Dunedin are literally full of water in the form of small underground streams. Some of these have a constant flow, while others are what are commonly termed "Maori drains", dry after periods of fine weather, but containing a trickle of water after a spell of rain. It might be interesting to study the effect on the growth of native trees when the roots strike one of these. I do know from personal observation that Eucalyptus fastigata shoots up at a very fast rate when it does. The actual size of one such tree which I personally felled when twenty-one years old was: Height 79 ft. 6 ins., diameter at butt 5 ft. 3 ins."

Following are some references in the Forest and Bird magazine which may be of interest, and which Mr. Thomson kindly supplied:

1943: Aug. "Unrealised timber value of native trees"  
J. Park (actual measurements given). 1943 Nov. "Regeneration

of native forests."

1944: Aug. "Growth of Native Trees"

1945: Feb. and May: "Germination seeds of Native Plants".

On 1st January 1935 Mr. A.W. Macandrew of Park Road, Titirangi measured the circumference of a naturally growing young kauri tree on his property at four feet from the ground. It was then 21 inches.

Measured on 3rd December, 1947, nearly thirteen years later it was  $31\frac{1}{2}$  inches. It is on a slight slope facing northeast, surrounded by about eight kahikatea, a mahoe, mapau and several white tree-ferns.

Mr. A.M. Butterworth, a foundation member, has eleven young kauri trees which he brought as about inch high seedlings from the Waitakere Ranges. These were grown fairly closely together on the edge of Kirk's Bush, and amongst them were scattered seeds of the White Manuka or Kanuka. The kauri trees, now 15 to 20 feet high, have kept a foot or so ahead of the kanuka. They are sturdy trees and Mr. Butterworth has kept records of their planting and subsequent growth.

Accurate growth records have also been kept of kauris planted by the late Sir Edwin Mitchelson in his home in Remuera (see N.A. Forestry Pt. 1 by D. Hutchins, 1919, p.14) and seeds were planted by his daughter, Mrs. Bertha Wilson (one of our foundation members) thirty-three years ago, and are sturdy trees today.

Other references of interest are:

- J. Baber, 1873. Rate of Growth of Native Trees under Cultivation. Trans N.Z. Inst., Vol. 5, p.45.
- J. Baber, 1885. Growth of Transplanted Trees. Ibid. Vol. 18, p. 311.
- J. Baber, 1887. Rate of Growth of Transplanted Tree. Ibid. Vol.20, p. 186 (records of the native conifers in the Auckland Domain which were planted in the year 1865).
- J. Stewart, 1905. Growth of certain native trees in Auckland Domain. Ibid. Vol 38, p.374.
- T.F. Cheeseman, 1914. Age and Growth of Kauri. Ibid. Vol. 46, p. 9.

- B.E.G. Molesworth.