Trachyloma diversinerve Hampe in F.Muell.
T. planifolium (Hedw.) Brid.
Weissia controversa Hedw.
Weymouthia cochlearifolia (Schwaegr.) Dix.
W. mollis (Hedw.) Broth.
Wijkia extenuata (Brid.) Crum
Zygodon intermedius B.S.G.

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CITY OF TREE FERNS

James Beever

How many cities list hedges of tree-ferns among their attractions? Few if any I imagine, yet Rotorua which seldom misses a tourist promotion hardly seems aware of the uniqueness of its many gardens with such hedges. They do not appear to be planned, they "just growed", and have only now reached the age which makes the best of them a fine feature for the proud owner.

They had their origin some years ago when tree ferns or pungas as they are popularly, if incorrectly known, became easily available from the pine forests where they grow readily under the pine canopy. When the pines are cut they are removed and the trunk or caudex used in various ways. Most are built into walls from 1.5-2 metres in height as screens for privacy or as retaining walls. Shorter trunks about half a metre long are also used for similar purposes and as garden edges.

At this stage they are a fairly permanent and pleasantly rustic wall but then comes a change. In many cases upwards of one in six of the trunks begins to put out new shoots usually from the cut top and in some way continues to live and produce the usual umbrella tops. Most trunks appear to be Dicksonia squarrosa, known to the Maori as tuakura or wheki or at least five other names. In a few years the wall has a fine top of tree fern heads. Sometimes a shoot comes from the side of the caudex and grows upwards in the same way completing a splendid tree fern avenue.

I have watched them with interest over the last decade and noticed that the botanical value does not stop there. The walls are a seedbed for seeds and spores that lodge in the rough surface and sometimes germinate clothing the sides of the wall with green. The first and by far the commonest to appear are kamahi (Weinmannia racemosa) and the small-leaved white flowered rata (Metrosideros diffusa). Kamahi branches grow upward and its roots head inwards and down to establish itself as a shrub which will perhaps some day become a tree. The rata spreads out and provides a green coat on the wall. Almost every wall has them.

Much less common but occurring occasionally are the shrubs karamu (Coprosma robusta) and fivefinger (Pseudopanax arboreus). Then there are the climbers puka or pohuehue (Muehlenbeckia australis), and two ratas, a small-leaved white flowered one , akatea (Metrosideros perforata) and the red flowered rata vine (M. fulgens). A natural epiphyte the kowharawhara (Astelia solandri) is sometimes seen and two ferns, hound's tongue (Phytosorus diversifolius) and ring fern (Paesia scaberula), complete this group.

Finally some that I have noticed only once in each case. Northern rata (Metrosideros robusta), a climber and eventually a large tree; the small trees Fuchsia excorticata, hangehange (Geniostoma ligustrifolium), and seven-finger (Schefflera digitata); a climber, the bush lawyer (Rubus cissoides) and two ferns, bracken (Pteridium esculentum) and the leather leaf fern (Pyrrosia serpens).

The sources of the seeds and spores producing the plants are not easily determined but it would seem that many of them have come with the tree ferns. Some may however have flown in later to the present positions and some may even have been tiny plants already growing in the trunks before they were put in place.

At present few owners do more than allow the walls to grow with minimum interference but soon someone will see their landscaping value and a new era will begin.