

A Step Forward 'Threatened Native Plant Garden'

Steve Benham & Brent Torrens

The Auckland Regional Botanic Gardens (ARBG) are increasingly becoming a recognised institution for *ex situ* plant conservation in the region and beyond.

In February the Gardens and the Auckland Conservancy were represented at the Wellington Plant Conservation Network. We were asked to speak on the proposed Threatened Native Plant Garden (TNPG) and report on the Auckland Plant Conservation Network. The Network was initiated six years ago by the ARBG and involves staff from conservation, botanical, horticultural, and educational disciplines.

The proposed creation of the TNPG on the site between the Native Plant Collection and the Perennial Garden is a major step forward for the ARBG and relates well to the 1997 Gardens Development Plan Working Party recommendations by the Science Project Team and the submissions from the Gardens staff. The Science Team stipulated that rare and endangered New Zealand Native plants should be cultivated in a special collection and the staff recommended that the Gardens should become a resource centre for regionally threatened plants with a Threatened Plant Survival Unit.

Progress on the planning of the TNPG is advancing well with a detailed proposal and a working brief being completed and presented to a landscape architect in March. A blue-print design was accepted in April.

This thematic collection will have areas of ecological associations representing coastal and inland ecosystems and will include diverse habitats such as lava fields, gumlands, salt marsh, freshwater swamps and rocky bluffs to name but a few. Geographic areas will be represented where plants are threatened because of their geographical isolation and often low numbers, as on the Kermadec Is., outer Hauraki Gulf Is. and Three Kings group. An area of 'weedy' looking threatened plants will be displayed showing that these plants have been overlooked because they are similar in appearance to our all too familiar weeds.

The brief proposed that the overall design must complement the TNPG objectives,* be responsive to New Zealand and South Pacific cultural usages and styles, have a sense of enclosure, and a variety of stimuli to inspire children's imagination and learning. A covered structure and paved area where people can gather and be able to perform cultural events will also be a focal part of the Garden together with an inviting entrance symbolic of New Zealand and the South Pacific cultures.

A species list of threatened plants documented in the Auckland Threatened Plant Strategy and published in 1997 by the Department of Conservation has been rearranged into ecological habitats and each species has been assessed as to whether it should and could be grown in cultivation. It is envisaged that breeding populations will be established. A list of Northland threatened plants has been similarly treated. A list of associated and currently non-threatened species has been prepared with key species having been identified. Material of known provenance is being sourced. These species will be grown together as ecological associates with the threatened plants.

It must be emphasised that ideally plants should be conserved as evolving populations in the wild. However, this is not feasible for every species and where threatened plants are at risk of extinction then conserving them in cultivation and seed banks are realistically the only alternatives. Botanic gardens are the ideal organisations for rescuing and conserving species and utilising them for research and advocacy purposes.

Site development is scheduled for May and the design implementation is planned to be completed by November. Planting will be phased over the next five years or more depending on availability of material. We will endeavour to keep you up to date with the progress on this new and exciting development in future editions of this Journal.

*Objectives of the TNPG :

- create an awareness of Auckland's threatened plants and the reasons why they are in decline and what can be done to reverse the decline
- assist in the identification of threatened plants
- increase knowledge of the propagation and cultivation techniques of threatened plants and to disseminate this knowledge

- provide a backstop against extinction of threatened plants in the wild
- provide plant material for research, displays and cultivation thereby reducing pressure on the wild populations
- provide an aesthetically well-designed thematic display to entice the majority of visitors into the Garden, to inspire and instruct people how to take responsibility and action for their environment
- promote where appropriate the wider use of threatened plants in the home garden and amenity horticulture
- provide plant material for species recovery programmes and translocation programmes
- provide a resource for conservation biology, systematic research, propagation, horticultural and related research, research into pathogen controls
- increase public appreciation and awareness of the ARBG's role as a scientific and educational resource
- provide herbarium voucher specimens to the Auckland War Memorial Museum herbarium.

Acknowledgement

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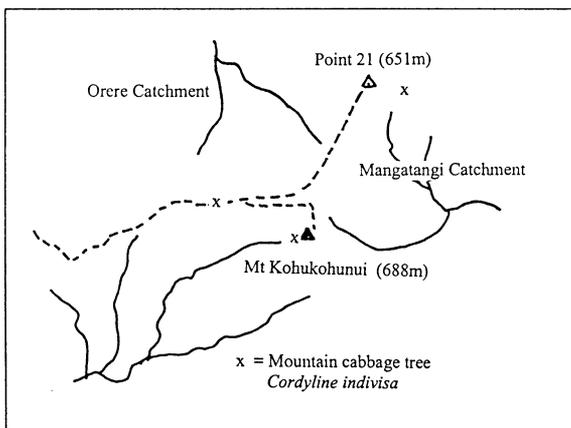


Mountain cabbage tree (*Cordyline indivisa*) in the Hunua Ranges

Brenda Greene

The mountain cabbage tree (*Cordyline indivisa*) reaches its northern limit in the forests of the Coromandel and Hunua Ranges (Fig. 1). In the Hunua Range, south-east of Auckland, mountain cabbage trees were first recorded on Mt. Kohukohunui by Edwards and Bieleski in 1951 (NZMS-S11 078 602). In 1969 R. Middleton and I. L. Barton recorded reported a mountain cabbage tree at Point 21, north of Mt. Kohukohunui (S11 082 610). There was at least one large tree about 15 cm dbh and 5 m tall, due east of trig, plus 10-12 other small plants (I. Barton, *pers. comm.*). Small cabbage trees were also scattered along the track approaching the summit (S11 064 602) and on the track out to Point 21 (I. Barton, *pers. comm.*). I visited Point 21 in 1993, and noted one small

cabbage tree growing adjacent to a grassy clearing, on a 25° slope facing eastward. This grew to about 2 m in height, but started to fail after Auckland's drought in 1995, and had died by my last visit in November 1999. The Kohukohunui site record, and track edges to the summit, and Point 21 were checked at the same time, but no trees were located.



The abundance of *Cordyline indivisa* has decreased in the last 30 years, and although no records currently exist, this does not preclude that a seed bank is still viable, or other trees are present but unrecorded.

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Historic distribution of mountain Cabbage tree, *Cordyline indivisa*, in the Hunua Range.