

# FERNGLEN NATIVE PLANT GARDENS NEWSLETTER

Autumn 2020



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## News from Fernglen

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by Kelly Hayward

I hope everyone is doing ok after lockdown.

We were lucky the Fernglen Open day on Saturday the 21st of March was on the weekend prior to the 'level four' announcement. In the heightened tension of whether the country would go from level 2 to level 4 in a short time frame, a bush walk and/or guided tour taken by Fernglen curator Steve Cook or landscaper Nev Arbury was a good distraction. One welcome resident was spotted on a group tour taken by Steve (see photo below).



As visitors arrived at the gate they were met by Annie and Jem from Pest Free Kaitapiki. One of their key goals is to create halos around some of the 160 reserves in the Kaipatik area, ensuring continued baiting and trapping of rodents. For those who would like to be part of a Kaipatiki halo please contact Annie at [enquiries@pestfreekaipatiki.org.nz](mailto:enquiries@pestfreekaipatiki.org.nz)

Steve constantly has his eye on the rain radar. While we all know it's been a drier than usual summer, his rain gauge indicated that only 5mm of rain fell in January, 15mm in February and 20mm in March - alarmingly low figures. Thankfully the irrigation system has been working at Fernglen, however it does have a range limit, leaving the forest trees under stress. A lot more hours have been dedicated this summer to watering the gardens at Fernglen.



*Hebe barkeri* (Chatham Island tree hebe) at Upper Ben's Ridge

Ngaire, who volunteers at Fernglen two mornings a week is to be credited for her work transforming the shade house/potting shed. Thanks to her hard work manoeuvring a piece of recycled shelving, sourced by Steve from a soon-to-be demolished shed in Beach Haven, the shade house/potting shed is now a very organised and functioning work space again. A huge thank you to Ngaire and her son Joey for all their work in preparing for the open day.



Early in March, Glenfield Ranger leader, Kathy met Steve at Fernglen to carry out a badge called, 'Wildlife & Wilderness'. Some of the requirements to obtain this Girl Guiding badge are to identify the tracks of birds or animals and, learn about insecticide options, gaining an understanding as to how to promote safe chemicals to a garden. It is inspiring to hear the girls aged between 12 - 17 years old would undertake a badge of this kind.

We look forward being able to host groups at Fernglen again soon.

Thank you for your continued support.

Take care and keep well.

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## Drought resistance

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by Steve Cook

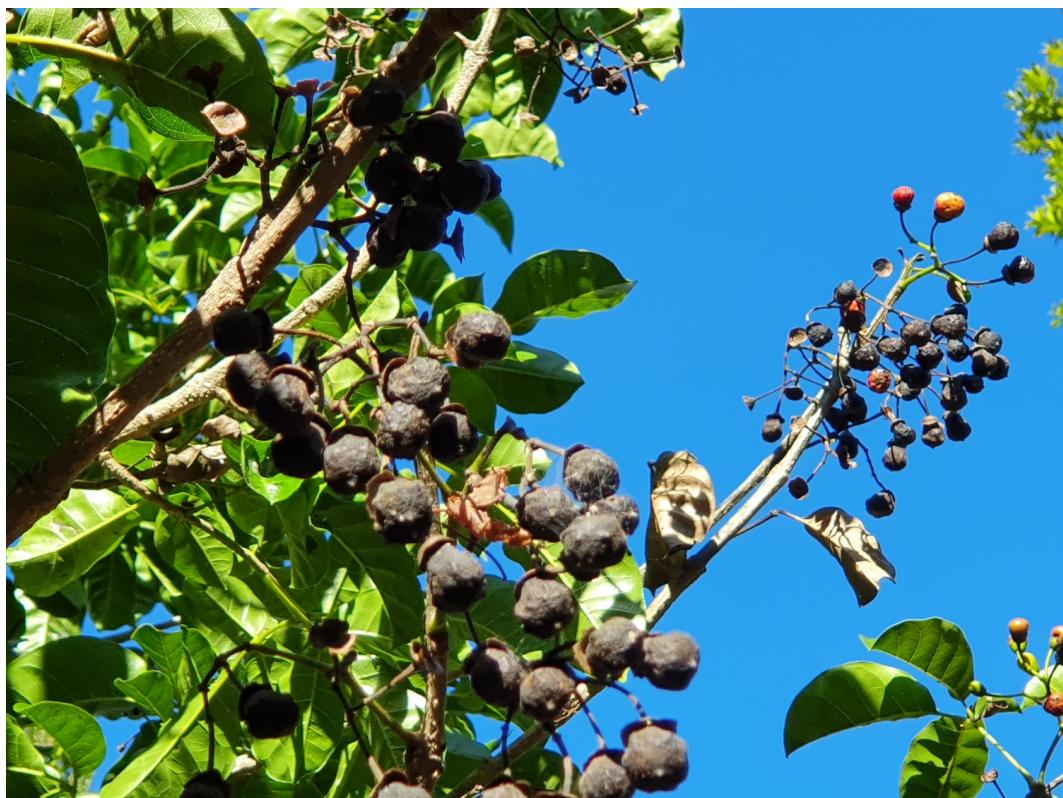
How do individual trees within an interbreeding population 'learn' to protect themselves from drought? Here is (a very much condensed version of) what happens:

The 'learning' is written on their genes. Trees which don't protect themselves in such ways as progressively shedding their foliage and/or fruit will have a much higher death rate from droughts.

In that way favourable genetic adaptations will survive within the successful trees, and the more protective genome will be spread more widely within the population of that species.

On the other hand, the trees which lack the protective behaviour will be more often killed by severe droughts and thereby, over time their less protective genome will reduce within the tree population.

At Fernglen I watched one puriri tree initially grow a normal crop of fruit but as the drought bit harder, it swapped into shutting off water and nutrient supply to all of this year's fruit, resulting in all fruit going black, shrivelling, then falling off (see photo, taken 20 February before all the fruit were aborted). Puriri fruit are a staple summer food for kereru, but I expect there was a lot less puriri fruit to feed the kereru this summer.



Dead fruit of puriri tree

It's better for the genes of the puriri to instruct the tree to abort all fruit and live to breed in many later years than to fruit normally during the drought then die from dessication.

Kauri are another interesting example of adaptation to dry summers. In February they began to shed leaves, twigs and branchlets, progressively dehiscing from their branches. The kauri forest floor at Fernglen (below the closed Kauri Ridge Track) is now covered with a deep layer of kauri leaves and branchlets (see photo). So kauri have adapted over millions of years to progressively sacrifice their foliage during severe droughts.



Kauri leaf litter

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## How to avoid the annual cull of *Griselinia littoralis* during hot, dry summers

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by Neville Arbury

Possibly a good starting point is NOT to plant hedges of *Griselinia littoralis*, especially in heavy clay soils or free-draining volcanic soils. Always remember that *Griselinia littoralis* is a very large tree, only by constant pruning can it be retained as a hedge, and that eventually it will become woody.

As a horticultural advisor I am regularly called out over summer to provide advice on griselinias. When the leaves begin to turn a pale green colour and droop, the dying process is then irreversible.

If you have an existing *Griselinia littoralis* hedge you must be attentive to its requirements. From early December onwards, ensure the plants the plants are watered at least once a week to help develop a sturdy root system. As soils warm in early summer, commence applying mulch around the base of the plants to improve soil water retention.

If you require a 2-metre hedge, why plant a tree that eventually grows to 15 metres! Other natives that can provide excellent screening while not growing too tall include:

- *Coprosma crassifolia*
- *Coprosma repens*
- *Corokia cotoneaster*
- *Melicytus obovatus*
- *Muehlenbeckia astonii*
- *Pittosporum roimata*

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## A new pittosporum species growing at Ben's Ridge, *Pittosporum roimata*

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by Neville Arbury

Although planted two years ago on Ben's Ridge, what was previously known as *Pittosporum cornifolium* 'Poor Knights', is now a separate species, *Pittosporum roimata*. Whereas *Pittosporum cornifolium* is often found growing as an epiphyte, this new species only found growing on the Poor Knights' Islands, naturally occurs on rocky sites and on cliff faces.

I have used this plant in my landscaping for a number of years. Its upright, multi-branched habit makes it an excellent screening plant, growing up to 3 meters.

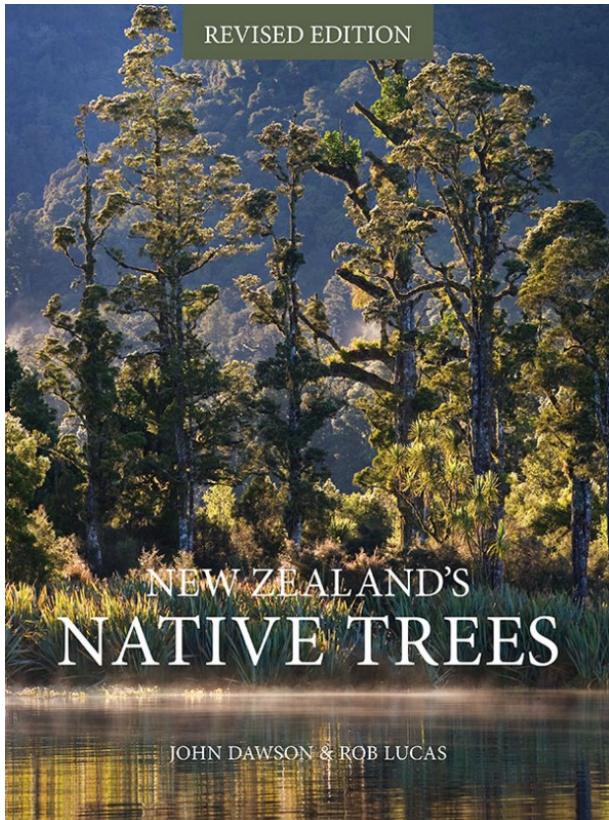
While this pittosporum grows best in free-draining soils, it will thrive in most Auckland soils that have been adequately prepared with the addition of compost prior to planting. The new species can be viewed at Ben's ridge, growing just between the Three Kings' titokis, next to the *Pittosporum cornifolium*.

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## Book review – New Zealand Native Trees by John Dawson and Rob Lucas (revised edition)

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by Neville Arbury



First published in 2011, I can clearly recall revising the original publication, stating that this was definitely the finest work ever produced on our native trees! The book was the recipient of the 2012 New Zealand Post book award for categories 'Illustrated Non-Fiction' and 'Book of the Year'. So why a revised edition? New species required descriptions and many additional photographs became available to be included in a new edition.

The book now describes and illustrates over 350 species, subspecies, and varieties. With 3,200 photographs, this publication is an excellent reference point for identification. Especially of lesser-known species. One of the very special features of the book is the inclusion of sixty 'text boxes', where additional information is provided about various plant species, e.g. diseases and parasites, pollinators, irregular flowering.

With over 600 pages of information, the book is informative for the botanically minded, while still very relevant for the keen native plant lover. Divided into three main sections, conifers, tree ferns, and flowering trees, access specific plants that may be of interest to you. The photography is superb with many additional images from the original publication. Highly recommended for all homes, schools, and libraries.

Name changes listed in 2019 edition:

<i>Podocarpus cunninghamii</i>	→	<i>Podocarpus laetus</i>
<i>Coprosma tayloriae</i>	→	<i>Coprosma dumosa</i>
<i>Kunzea ericoides</i> var. <i>ericoides</i>	→	<i>Kunzea ericoides</i>
<i>Kunzea ericoides</i> var. <i>linearis</i>	→	<i>Kunzea linearis</i>
<i>Kunzea ericoides</i> var. <i>microflora</i>	→	<i>Kunzea tenuicaulis</i>
<i>Nothofagus fusca</i>	→	<i>Fuscospora fusca</i>
<i>Nothofagus menziesii</i>	→	<i>Lophozonia menziesii</i>
<i>Nothogaus solandri</i> var. <i>solandri</i>	→	<i>Fuscospora solandri</i>
<i>Nothogaus solandri</i> var. <i>cliffortioides</i>	→	<i>Fuscospora cliffortioides</i>
<i>Nothofagus truncata</i>	→	<i>Fuscospora truncata</i>
<i>Macropiper excelsum</i>	→	<i>Piper excelsum</i>
<i>Marcopiper melchior</i>	→	<i>Piper Melchior</i>

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## Surviving the ‘Big Dry’ 2020

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by Neville Arbury

Having received little or no significant rain since before Christmas, Auckland, and many other parts of the New Zealand, especially the North Island have been experiencing severe drought conditions. As you drive around Auckland, you will be shocked to see many naturally hardy natives (and non-natives) dead or dying including coprosma species, *Griselinia lucida*, *Piper excelsum*, native grasses, *Hedycarya arborea*. Street trees, especially those planted last winter are either dying or looking very stressed, e.g. *Metrosideros ‘Mistral’*, *Knightia excelsa*, *Beilschmiedia tarairi*. The big question is, will these summer conditions be the norm or are they an aberration? We know temperatures will continue to rise, but hopefully long, dry summers will not be repeated too often.

Here at Fernglen we have survived the drought conditions remarkably well thanks to consistent watering by our curator Steve and some helpful volunteers.

The walk to Ben’s Ridge is a reminder of how dry the summer is, the paths covered with leaves, tree ferns carrying large amounts of dead fronds, understorey kawakawa and hangehange drooping and the parataniwhas lying prostrate on the ground. With the rain the ‘bush’ will recover, but at the moment it’s not a good look!

Below are listed a few ideas to help in limiting losses in your home native garden:

- Plant species that are more robust in dry conditions. Coastal plants are a good starting point.
- Major plantings should be undertaken in early winter into well-prepared soil.
- When selecting new natives for your garden, chose healthy young plants with a well-developed root system.
- In early spring as the soil warms, mulch your garden to improve water retention over dry summer months.
- Monitor your native plants to check for early signs of stress.
- In dry summer months water regularly and deeply to encourage the development of a strong root system.

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## Focus on our three Kings' Titoki, *Alectryon excelsus* subsp. *grandis*

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by Neville Arbury

The three specimens of this subspecies are thriving at Ben's Ridge, having received no significant watering over summer. They just continue to get bigger and bigger! They are only found growing naturally on the West and Great Islands of the Three Kings' group and in very limited numbers. Accordingly, they are listed as a threatened species, naturally vulnerable.

The tree can be reasonably easily identified as different from titoki as the leaves are larger and a mature specimen has a more rounded compact form. Fortunately, in the Sandringham, Morningside and Westmere suburbs specimens of *Alectryon excelsus* subsp. *grandis* have been planted as street trees and they are thriving. With their more compact form, they are a more appropriate street tree than many other trees that have to be regularly pruned to restrict growth into power lines. Their apparent hardiness to very dry conditions also makes them an excellent choice for street trees.

The attractive fruits are identical to the titoki, providing food for the tuis. While sadly specimens are very seldom found for sale, even in specialist native nurseries, it is to be hoped that in future years this very attractive small tree will be planted as street trees around Auckland. Amazingly, as I walk around the streets of my suburb, Western Springs, I have discovered a superb specimen growing as a street tree in the street that I have lived for over thirty years. There has to be a silver lining to the lockdown!

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## Seed collection time coming soon

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by Neville Arbury

One of the fun activities of a ‘passion’ for native plants is collecting and propagating your own plants. With the recent closure of a number of major native plant nurseries obtaining some lesser-known natives is becoming more difficult. The answer is to grow your own! Below are listed seed collection dates for the Auckland Region:

Trees:

<i>Alectryon excelsus</i> (tītoki)	- August/September
<i>Beilschmiedia tarairi</i> (taraire)	- April/May
<i>Cordyline australis</i> (cabbage tree)	- March/April
<i>Dacrycarpus dacrydioides</i> (kahikatea)	- April/May
<i>Dacrydium cupressinum</i> (rimu)	- February/March
<i>Dysoxylum spectabile</i> (kohekohe)	- March/April
<i>Entelea arborescens</i> (whau)	- February/March
<i>Knightia excelsa</i> (rewarewa)	- April/May
<i>Meryta sinclairii</i> (puka)	- February/March
<i>Metrosideros excelsa</i> (pohutukawa)	- April/May
<i>Metrosideros robusta</i> (Northern rata)	- April
<i>Planchonella costata</i> (tawapou)	- April/May
<i>Rhopalostylis sapida</i> (Nnka)	- February/March
<i>Sophora tetraptera</i> (kowhai)	- April/May
<i>Vitex lucens</i> (puriri)	- all year

Shrubs/small trees:

<i>Ackama rosifolia</i>	- March/April
<i>Carpodetus serratus</i>	- March/April
<i>Coprosma lucida</i>	- April
<i>Coprosma repens</i>	- April
<i>Griselinia lucida</i>	- March/April
<i>Hoheria populnea</i>	- March/April
<i>Melicytus ramiflorus</i>	- April
<i>Myrsine australis</i>	- April
<i>Pittosporum crassifolium</i>	- February/March
<i>Pseudopanax lessonii</i>	- March/April
<i>Pomaderis kumeraho</i>	- January/February

Other:

<i>Astelia banksii</i>	- February/March
<i>Arthropodium cirratum</i>	- January/February
<i>Dianella nigra</i>	- February/March
<i>Phormium tenax</i>	- March/April
<i>Tecomanthe speciosa</i>	- March/April

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## What's happening at Fernglen?

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### Working bees

Regardless of the weather, working bees occur at Fernglen **on the second Saturday of every month from 9am onwards, until about 12 noon.**

The working bee is a great way to meet others, learn more about native plants, weeds and pest control. There is always a job to be done in the garden or in the education room.

No gardening experience is necessary and all ages and abilities are welcome. Gloves and gardening tools can be supplied.

Looking forward to seeing you there.

### Educational tours

Are you involved with a school or an education group and would like to learn about New Zealand native plants? A unique collection of plants from all over New Zealand grows at Fernglen. To see what is on offer please contact us

on email: [fernalen.nz@gmail.com](mailto:fernalen.nz@gmail.com)  
or phone: 021 236 5800

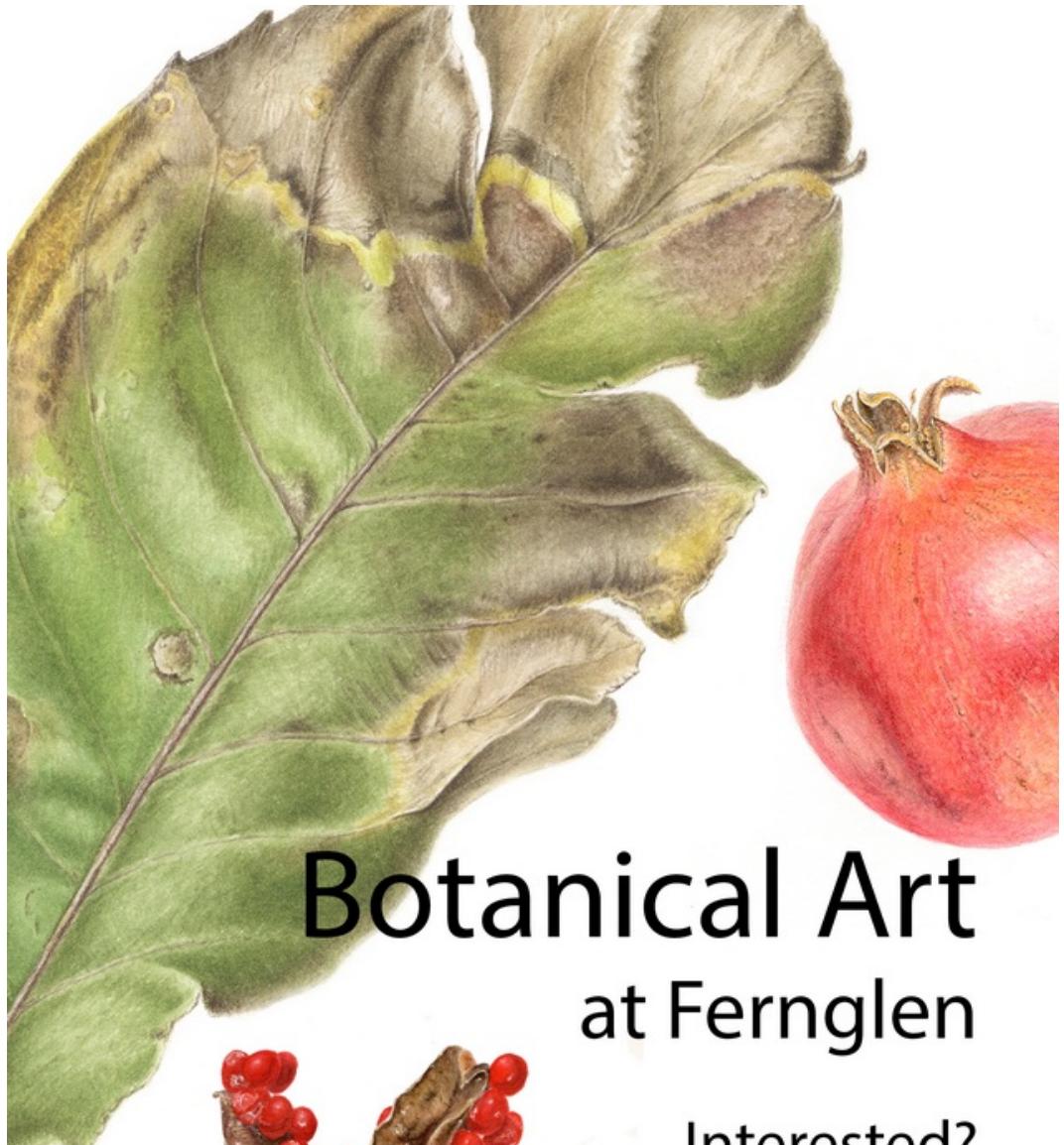
### Pest Free Kaipatiki

Did you know Pest Free Kaipatiki Restoration Society are located in the Fernglen education room office? Check out news about pest plants, kauri dieback prevention, pest animals and events at [www.pestfreekaipatiki.org.nz](http://www.pestfreekaipatiki.org.nz)

### Room hire

The Fernglen Education Room is available for hire at very competitive rates. Please contact us

on email: [fernalen.nz@gmail.com](mailto:fernalen.nz@gmail.com)  
or phone: 021 236 5800



# Botanical Art at Fernglen

Interested?

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