FERNGLEN NATIVE PLANT GARDENS NEWSLETTER

Summer 2023

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News from Fernglen

text and photos by Kelly Hayward

Rain Damage

The recent torrential rain and flooding in the North Island has caused extensive damage. Our hearts go out to all those affected by recent flood damage. Within Fernglen there has been track damage and wash out. Be especially careful when walking the track to the fern house, particularly just past the large pohutukawa tree, also the stairs leading away from the fern house down to the bridge, there are pits within the stairs.

The Fernglen education office did flood, water rose just above the carpet line. But, thanks to the quick thinking actions of my husband Bryce and curator Steve, the water was soon released. Steve returned with his wet vacuum and cleared 23 litres of water from the room! That night water rushed under the bridge like never seen before.

Opposite, in usually quiet Kauri Park the sound of water gushing was loud and memorable. At the bottom of the track that leads to the bottom of Kauri Road a kanuka has fallen and a nikau uprooted. Luckily they landed within the bush-scape. Take care when walking the tracks.

The morning following the deluge, I surveyed the damage to the gardens and tracks. Other than track damage, the worst hit area was the parataniwha glade. The water rose over the boardwalk and clay shifted as large volumes of water rushed over it. Tracks have been scoured throughout the rock garden area. Watching the news later in the day was the realisation that Fernglen, in the scheme of the city's damage had gotten off lightly.



Flood damaged path past large pohutukawa

Christmas 2022

Thinking back to the end of last year, it seemed folk had had enough of 2022 and were ready to celebrate Christmas early. Christmas decorations went up earlier in the year than I had previously remembered. The earliest I observed, was on the 31st of October, Halloween, where a house was decorated in mixture of Halloween and Christmas decorations.



Rewarewa

The prelude to our flowering pohutukawa Christmas tree, must be the rewarewa, Knightia excelsa, New Zealand honeysuckle. Deep red, brush like flowers, framed among its green serrated leaves were prominent throughout November. By the end of the month the nearby small white kanuka tree flowers set Christmas tones. An example of this in Fernglen was the rewarewa at the top of Ben's Ridge, at the entrance to the loop track. At the time the rewarewa's deep red flowers fell away, crimson flowers from the very large pohutukawa tree emerged above the cabbage, kawakawa and tecomanthe trees. Its iconic Christmas flowers could be enjoyed from the bench seat in the grassed area, once the site of the Fisher family home.

Between days of rain, the swishing sounds of tui darting between branches, chasing each other, singing grey warblers and the odd melodic call of a shining cuckoo were common occurrence in Fernglen. Kereru are

stealth in their arrival on a tree branch and only one month ago fledglings hopped around on the ground, vocal as they continued to be fed by their parent and practiced flying.

Donations

Thanks to all those involved in the starting of the returnable cup movement with Ground for Good. Those who purchased drinks with a returnable cup at Little Creatures, Hobsonville, Holy Shot, Takapuna, New Brew, Albany contributed towards the Fernglen Native Plants Gardens Trust. Collectively this project saved over 4,600 cups from going to landfill. A generous donation of \$500.00 as well as proceeds from a raffle raised by Bonny of Nature Haven, selling Naturally Neem natural insecticides (see info at the end of the newsletter) will be used to fund resources to carry out a self-guided tour in Fernglen, enabling participants to learn more about the special plant species they are viewing.

Curator

We farewell Steve Cook, as curator to Fernglen for the past 3+ years. He has left his mark on the gardens as a very generous contributor, dedicated to maintaining the gardens and the trust's ethos: to carry out education on native flora and fauna, to a very high standard. He volunteered endless hours conducting garden tours, providing education of the gardens, reinstating and

maintaining the garden's infrastructure and, carried out maintenance on the education room. Steve came to the gardens in 1987 when his wife answered an ad in the local paper, placed by Muriel Fisher, seeking assistance in weeding the gardens. He became involved in the gardens becoming one of the founding members of the committee and trust. While Steve is stepping down from the committee, he will remain on the Fernglen Native Plant Gardens Trust. We are very grateful to Steve for his generous contribution and wish him well in his retirement.

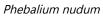


Steve, Barry and John at farewell morning tea

Event News

Sharon McGaffin shares about the last event she organized as Kids Conservation Club co-ordinator. The event was held at Fernglen education room in November 2022. Sharon has been one of the club's co-ordinators for the past 6 years and has regularly held events at Fernglen. You can read all about it in the next chapter.







Closeup of Davallia tasmani



Pomaderris amoena

Lizards at Fernglen

by Sharon McGaffin

People of all ages packed Fernglen's education room on Sunday morning, 27 November, eager to learn about New Zealand's native lizards. The occasion was a presentation by herpetologist Nick Harker for the North Shore Kiwi Conservation Club. Nick began with a 40-minute PowerPoint slideshow about our unique lizards and then with brother Tim's help, also a herpetologist, showed the audience three geckos and a skink they'd brought with them.

We learned that before people settled in the Auckland region, there were up to twenty lizard species plus tuatara (a reptile, but not a lizard) living here. Five of the lizards have since become extinct and seven live only on offshore islands. New lizard species are still being discovered, though. The Muriwai gecko is found on the western coast near Auckland and was reclassified as a new species in 2016, after a dead gecko discovered in 2003 was incorrectly identified as the more common Raukawa gecko. The cobble skink was discovered in 2007 on a little beach near Westport, but its habitat was being destroyed by rising sea levels, so 36 cobble skinks were relocated to Auckland Zoo in 2016. Subsequently, their habitat was devastated by Cyclone Gita. Auckland Zoo staff, however, have successfully bred cobble skinks in captivity and are transferring them to a specially-designed facility near their original habitat.

All our lizards are endemic, which means they do not occur anywhere else in the world. Skinks have narrow heads with small eyes (can blink) and smooth, shiny scales, while geckos have wide heads, large eyes (can't blink) and loose, velvety skin. Both skinks and geckos mainly eat small invertebrates, but also feed on berries and nectar from native plants. There is evidence that New Zealand lizards prefer to eat blue and white berries rather than berries of other colours. New Zealand geckos are unusual in that they give birth to live young rather than laying eggs. Most of our skinks do too, except for one, commonly known as the egg-laying skink and found only along the north-eastern coast of the North Island, mostly on offshore islands.

Two of the geckos Nick and Tim showed us, an elegant gecko, also known as the Auckland green gecko, and a forest gecko occur locally, but both have a conservation classification of 'At Risk – Declining' due to habitat clearance and predation by mammalian predators. A forest gecko was spotted regularly last year on a totara tree near the entrance to Verran Primary School, and an elegant gecko surprised a young cricketer on Verran's playing field some years ago by climbing onto his leg, so we are lucky in Birkenhead to still have these little critters living amongst us. The third gecko, a Duvaucel's gecko, is New Zealand's largest species of gecko, growing over 30 cm long, which makes it highly vulnerable to predation, so it currently exists only in a few pest-free areas, mostly offshore islands. Nick and Tim also brought along a robust skink, New Zealand's largest species of skink, reaching over 30 cm in length and one of our rarest lizards. Once common in lowland areas throughout the North Island, but also, due to mammalian predators, now found only on a few small offshore islands.



Duvaucel's gecko (left) and elegant gecko (right)

Some children were delighted to be given the opportunity to hold one of the geckos. Fortunately, the geckos Nick and Tim brought along were accustomed to being handled and didn't seem stressed by the close attention they received. We left Fernglen with a greater knowledge and appreciation of our fascinating reptilian residents, and an understanding of the need to eradicate mammalian predators so that lizards don't disappear from our community.



Robust skink on leaf litter (Northland). © Nick Harker

Põhutakawa Flowering – November to December 2022 – An Annual Assessment

by Neville Arbury



Pōhutukawa at Auckland Botanical Gardens in December

The first large pōhutukawa in flower that I noticed was in Epsom on the 18th of November. I checked the tree carefully, there were no Kermadec Island "blood lines", as the Kermadec pōhutukawa can flower at various times of the year. The leaf of the Kermadec pōhutukawa is smaller and more rounded than the mainland pōhutukawa. Would this very early flowering indicate a particularly strong flowering season I wondered, or would it be completely irrelevant to flowering over the next six weeks or so? By late November there were numerous pohutukawa flowering in different parts of the city and I was optimistic that we were about to experience one of the great pōhutukawa flowering seasons!

Sadly, the expectation of a significant flowering season never came to fruition. In fact, I would describe the flowering of pōhutukawas this season as below par. What was unusual and is quite baffling, was the erratic nature of flowering. By this I mean, where there were a group of pōhutukawas of similar age, one tree would display significant flowering, while nearby trees had few or no flowers.

For over twenty years I have been observing a particular pōhutukawa, as you enter Okahu Bay. I have designated this tree as my indicator pōhutukawa, when it is in full flower, there is no finer specimen in Auckland. This year there were no flowers at all!

While the rain came a little later than when the flowering of pōhutukawas commenced, the amount of new vegetation growth on many pōhutukawas in late December was significant. The result was that although flowering was often sparse, the trees appeared exceptionally lush.

It is now quite a few years since we had what I would term a great flowering pōhutukawa season. While I am no closer to determining what factors contribute to pōhutukawa flowering, I am beginning to wonder if climate change is somehow impacting on the flowering of Auckland's pōhutukawas. Reports from Wellington indicate that pōhutukawas flowered prolifically in that region this season, interesting as pōhutukawas do not naturally occur in the Wellington area.

The Importance of Watering!

by Neville Arbury,

With all the rain experienced in Auckland through November, December and into January, the resultant lush growth in almost all gardens, native and non-native, has emphasised the importance of water for healthy plant growth. On arriving in Fernglen on December 10 for our monthly working bee, I was blown away by the lush nature of so many plants! I had never seen Fernglen looking so pristine, trees, shrubs and ferns were all covered with healthy deep green new growth, on some plants the amount of new growth was simply astounding, e.g. *Streblus smithii*.



New growth of Prince of Whales feathers fern

As a landscaper, I visit many gardens and the story has been the same throughout Auckland. Water plus warm temperatures equate to quite staggering growth. The amount of rainfall received has emphasised that we have been severely "under watering" our plants in Auckland gardens. While most plants manage to survive our usual quite dry summers with the help of regular watering, we have absolutely underestimated the amount of water required to achieve optimum plant growth over the summer months.

This can be attributed to traditional watering habits and more recently, to the ever-increasing cost of water. Possibly we will have to accept that summers like the one we are experiencing are an absolute bonus for our gardens, or we have to adopt a variety of approaches to help achieve maximum summer growth. This may entail installing a significant water tank on the home property,

mulching plants in early summer to help retain existing soil moisture, and being more efficient in watering techniques, e.g. drip irrigation on individual plants rather than sprinklers.

While this summer has been a nightmare for campers and holidaymakers, the plants of Auckland have never looked so stunning!



Neville pruning an Astelia hastata

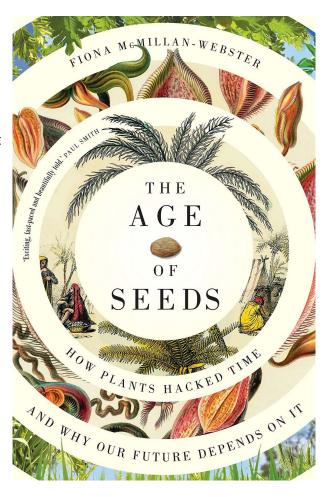
Book Review: The Age of Seeds – How Plants Hacked Time and Why our Future Depends on it, by Fiona McMillan-Webster

by Neville Arbury

In this publication, Fiona McMillan-Webster tells the astonishing story of seeds. The crucial role they play in our everyday lives, and what they mean for our planet. The first chapter relays the remarkable story of a 2,000-year-old date palm seed being discovered in Masada, Israel and how it was successfully germinated. This leads to a fascinating study of seed longevity. As the author writes,

"Every seed contains an evolutionary past and a possible future".

The author documents the development of plants to the stage where they finally became seed-bearing. The story of seeds is very much a tale about life finding a new way to extend itself across space and time. Starting around 12,000 years ago, the cultivation and domestication of plants took place in a variety of locations. Early farmers selected seeds and stored seeds to ensure future harvest's occurred.



Of particular interest is the author's detailed description of the Svalbard Global Seed Vault in Norway. Here there are three separate chambers kept at a temperature of minus 18 degrees Celsius, with each chamber storing 1.5 million seed samples. The primary objective of the seed vault is to serve as a "fail-safe" for global food security. Specifically, it functions as a backup storage centre for the world's crop seeds and crops' wild relatives. The species stored include wheat, rice, barley, sorghum, maize, soybeans, chickpeas, oats, beans, peanuts, alfalfa, and many more.

In chapter 13 the author poses the question, where is the most biodiverse spot on the planet? You would naturally think of the Amazon, Madagascar, and New Guinea..., but instead the author takes you to West Sussex, England where Kew Gardens has established the millennium seed bank. Here, in a secure storage facility are held over 2.4 billion seeds from nearly 40,000 wild plant species from around the world. The aim here is to preserve seeds of wild plant species as part of an ambitious effort to conserve the Earth's biodiversity.

In the final paragraph, author Fiona Mc-Millan-Webster writes

"With seeds, plants found a way to hack time, arriving at an ability to cast genes forward into the future in a way that most other living organs cannot. This daft evolutionary manoeuvre, this seed habit changed our world."

This is a book I could not put down, literally reading it from cover to cover non-stop. Thanks to the Martinborough bookshop, where I purchased this gem. Highly recommended.

Native Ground Cover Plants Thriving at Fernglen

by Neville Arbury

During the winter working bees, a significant number of native ground covers were planted throughout the old garden. Possibly as a result of all the summer rain and/or correct positioning, the ground covers have thrived and are multiplying rapidly. These ground covers include:

- Disphymia australe
- Isotoma fluviatilis
- Leptinella calcarea
- Leptinella "Seal Island"
- Leptinella pusilla
- Leptinella rotundata
- Leptinella squalida
- Mentha cunninghami



Leptinella rotundata

They would join our well-established ground cover plants to present a reasonably comprehensive selection of native ground covers. These include:

- Acaena inermis
- Coprosma acerosa "Hawera"
- Doodia australis
- Fuchsia procumbens
- Gunnera prorepens
- Leptinella dioica
- Leptostigma setulosum
- Mazus radicans
- Rubus barkeri

A Rare Native Gem Re-discovered in the Old Garden, Pittosporum michiei

by Neville Arbury

While cutting back some vigorous growing *Pomaderis setulosa* at our last working bee, a specimen of *Pittosporum michiei* was discovered. Considering it had been growing under the canopy of a fine-leaved pomaderis for some time, the plant looked remarkably healthy.

Pittosporum michiei is only found growing naturally in the vicinity of North Cape. Here it is restricted to areas of scrub and low open forest on steep serpentine coastal cliffs. The plant is closely related to *Pittosporum pimeleoides* and is sometimes referred to as *Pittosporum pimeleoides* var. *maius* or *majus*. The plant is named after Ross Michie (1894-1987). A well-known figure from Kaitaia, an expert on native plants of the Far North and a painter of large terracotta pots. As he was a friend of Bill and Muriel Fisher, it is possible that this plant or a parent plant was gifted to the Fishers by Ross Michie.

Like *Pittosporum pimeleoides*, the flowers are fragrant, something quite unusual for New Zealand native plants. The flowers have yellow petals with a central crimson streak. Male and female flowers are found on separate plants. Flowers appear in June, July and August. As the plant at Ferngeln is the only specimen I have ever seen, the challenge is to propagate some new plants from this rare native gem.



Pittosporum michiei

Another Native Gem in the Old Garden, Metrosideros perforata

by Neville Arbury

In the old garden near the large *Pennantia baylisiana* is a very healthy shrub-like clump of *Metrosideros perforate* that was covered in small white flowers throughout January. This is one of six climbing vines that are collectively known as climbing rātā. *Metrosideros perforata* is usually located in coastal areas from the Three King's Islands throughout the North Island and on both coastlines of the South Island. As with other climbing rātās, when cuttings are taken from the mature flowering tip of the plant, the resulting growth habit is that of a shrub rather than a climber. To cultivate the climbing form of our native rātās, it is necessary to propagate new plants by seed.

In close proximity to *Metrosideros perforate* (three metres up the path) is a thriving *Metrosideros fulgens* that displays its orange-red flowers in late summer. Further up the path are a number of *Metrosideros carminea* specimens. Their bright red flowers were in full display in early summer. All three of these rātās have been part of the plant collection for quite some time, requiring little or no attention. *Metrosideros fulgens* because of its vigorous growth, is annually pruned after flowering has finished.

Hopefully, in the near future, we can locate specimens of *Metrosideros albiflora*, *Metrosideros colensoi* and *Metrosideros diffusa* to complete our collection of rātās.

Some Interesting extracts from Charles Darwin's Journal Aboard the Ship HMS Beagle

by Neville Arbury

In August 1831 the HMS Beagle was preparing to sail from England to the coast of South America, In common with other surveying ships, the Beagle would employ an official naturalist. The ship's captain, Robert Fitzroy expressed a wish for a gentleman of a good family with an interest in natural history. The person's function would be to contribute to the ship's scientific mission. Charles Robert Darwin was a recent graduate in divinity from the University of Cambridge. One of his professors suggested Darwin for the position, as an aspiring naturalist. Darwin willingly accepted the offer and the next five years provided Darwin with field observations on which to base his later work.

The Beagle arrived in New Zealand on the 24th of December 1835, mooring in the Bay of Islands. Below is an extract from his journal, his first observations of kauris.

"A little before noon Messrs Williams and Davies walked with me to a part of a neighbouring forest, to show me the famous kauri pine. I measured one of these noble trees and found it thirty-one feet in circumference above the roots. There was another close by, which I did not see, thirty-three feet; and I heard of one no less than forty feet. These trees are remarkable for their smooth cylindrical boles, which run up to a height of sixty and even ninety feet. With a nearby equal diameter, and without a single branch. The crown of branches at the summit is out of all proportion and small to the trunk and the leaves are likewise small compared with the branches. The forest was here almost composed of kauri. And the largest trees, from the parallelism of their sides, stood up like gigantic columns of wood. The timber of the kauris is the most valuable production of the island, moreover, a quantity of resin oozes from the bark, which is sold at a penny a pound to the Americans..."

Apart from the kauris, Darwin did not find a lot to like in New Zealand. Here is the extract from his journal as he was leaving:

"December 30th - In the afternoon we stood out of the Bay of Islands on our course to Sydney. I believe we were all glad to leave New Zealand. It is not a pleasant place. Among the natives, there is absent the charming simplicity which is found in Tahiti and the greater part of the English are the very refuse of society. Neither is the country itself attractive. I look back to one bright spot, and that is Waimate, with its Christian inhabitants."

What's Happening at Fernglen?

Eco-fest 2023

As part of this year's EcoFest (18th March to 16th April), Fernglen is going to have an open day on 16th April.





Sunday 16th of April 2023 - 10am - 3pm 36 Kauri Road, Birkenhead

Speciality Garden Tours 10:00am & 1pm book at: fernglen.nz@gmail.com

Botanical Advice Fun activities for children 'Hard to find' native plants for sale Refreshments available.

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.



Working bee morning tea

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: fernglen.nz@gmail.com

or phone: 021 236 5800

Room hire

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

on email: fernglen.nz@gmail.com

or phone: 021 236 5800

Naylor Love

Naylor Love are committed to seeking sustainable construction practices. Their history in New Zealand makes an interesting read on their website:

https://www.naylorlove.co.nz/about-us/our-history/



Naturally Neem

https://www.naturallyneem.co.nz/

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