Fernglen Native Plant Gardens

Spring Newsletter 2013

Contents:

An invitation to our annual Spring open day
Sunday 20th October 1pm-4pm

A very warm invitation is extended to all friends of Fernglen to attend our annual open day. This is a chance to enjoy a conducted tour around the gardens, meet members of the management committee, and share refreshments.

1.

1.Spring at Fernglen – Refurbishment of the fernery
Curators report
-Thanks to all involved in the working bee prior to the commemorative celebration and particularly Nev Arbury and his family
-Muriel's commemoration went well many thanks to all of the friends who attended and made it such a heartwarming tribute
-Auckland transport are reviewing the access to Fernglen and the possibility of a bus turning area with dotted yellow lines outside Malcolm and Muriel's house. Many thanks to Barry for his liaison and valuable observations
-Council contractors dealing with weed species commenced work recently.
-Additional people using education building in past month are Horticulture Training and Hash House Harriers.
Future dates:
Malcolm away 2nd September to 11th October
Massey University coming Tues 10th Sept
15th December Summer Sunday Stroll at Fern Glen Gardens
Education for Sustainability school classes commencing soon

With spring here many of the plants at Fernglen are flowering or about to flower, so now is a good time to visit. It is also a good time to view the refurbished fernery. This was part of our commemoration to Muriel Fisher on the 28th July. This acknowledged the contribution Muriel and Bill Fisher have made to native plants and ferns in particular. Over 30 new ferns, plus associated plants such as *Astelias, Collospermums,* and *Lycopodiums* have been planted. As with all of Fernglen plant collections the aim is two-fold: To successfully grow as many ferns as practical in this part of New Zealand, and to encourage visitors to grow native ferns in their home gardens. The weather for the commemorative celebration was brilliant and many people attended to honour Muriel and her legacy.

All Fernglen Gardens Commemoration Photographs courtesy Kelly Hayward

New Ferns to look out for:

Adiantum diaphanum-small maidenhair
Asplenium lamprophyllum
Asplenium oblongifolium-shining spleenwort
Asplenium obtusatum-shore spleenwort
Asplenium polyodon-sickle spleenwort
Asplenium hookerianum-Hooker's spleenwort
Blechnum blechnoides-shore hard fern
Blechnum filiforme- thread fern, climbing hard fern
Blechnum colensoi- Colensos hard fern, peretao, petako
Blechnumchambersii- lance water fern, nini, rereti
Blechnum fraseri- miniature tree fern
Blechnum vulcanicum-mountain hard fern, korokio
Davallia tasmanii-Davallia fern
Dicksonia lanata- prostrate tree fern
Hymenophyllum demissum filmy fern
Hymenophyllum scabrum rough filmy fern
Hymenophyllum dilatatum filmy fern, Matua, mauku
Leptolepia novae –zelandiae-lace fern
Pellaea falcata-sickle fern
Pteris macilenta- sweet fern
Rumohra adiantiformis- leather-leaf fern ,florists fern
Sticherus flabellatus- shiny fan fern

2. A guide to establishing your first fern collection

1. Select a suitable site which needs to be sheltered from strong winds, light to medium shade, with moist, but not too wet, soil condition.

2. Preparation: Incorporate significant amount of compost leaf mould or fine bark into the existing soil to create conditions ferns thrive in.

Sticherus flabellatus

Courtesy Jeremy Rolf

NZPCN

3. When selecting plants start with "easy to cultivate" ferns and once they are thriving move to the more challenging varieties. The easier ferns include: *Adiatum formosum* (giant maidenhair), *Asplenium bulbiferum* (hen and chicken, pikopiko), *Doodia australis* (rasp fern, pukupuku), *Lastreopsis spp* (shield fern), *Marattia salicina*, (king fern), *Polystichum vestitum* (prickly shield fern), *Sticherus flabellatus* (shiny fan fern).

To create a natural fernery it is also advisable to include additional plants that are associated with ferns such as *Astelia nervosa* (Chatham Island astelia or kakaha,/ Moriori flax), *Astelia solandri* (perching astelia, kaiwharawhara), C*ollospermum hastatum*(perching lily, kahakaha). Include low growing non woody groundcovers such as *Fuchshia procumbens* (creeping fuchsia), *Nertera depressa* (bead plant), *Leptostigma setulosum* or ,*Isotoma fluviatilis* (Blue star creeper).

Isotoma fluviatilis **(blue star creeper)**
Courtesy Phil Bendle
TERRAIN website.

4. Correct maintenance for ferns during the establishment period and summer months entails regular watering. Mulching with crushed bark helps to retain soil moisture. Remember that not all ferns will require the same amount of water, so observe the young ferns carefully. In general, ferns are pest and disease resistant, but some may need the appropriate protection from slugs and snails.

3. History: Early Botanist naturalist and teacher – Thomas Kirk

Born in 1828 in Coventry, England, Thomas Kirk had an early fascination with botany. First employed in a nursery, he later transferred to sawmilling where he gained a thorough knowledge of the timber industry. As a result of poor health and economic conditions in England, Kirk, his wife, and four children, emigrated to New Zealand in 1862. Upon arrival in Auckland, Kirk established a timber merchant business. This enabled him to explore the Auckland province and to indulge in his passion for botany. It led to his regular contributions to the museum herbaria and a life-time of correspondence with botanists in New Zealand and overseas.

In 1868 Kirk was appointed curator and secretary of the Auckland Institute and Museum. During his ten years in Auckland he made botanical expeditions to Little Barrier Island, Great Barrier Island, North Auckland, Thames gold fields, and the Waikato through to the Taupo, Rotorua districts. In 1873 he accepted a teaching position in natural sciences at Wellington College. For six years in Wellington he earned the respect of students and colleagues before moving to Canterbury to be a lecturer in Geology and Biology at Lincoln Agriculture College.

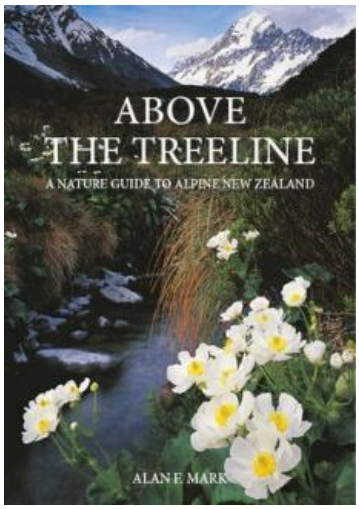
In 1885 Kirk became the Conservator of State Forests, and despite insisting he was not a forester, his influence was far reaching. During his short term in office he managed to reduce the wasteful use of indigenous forest and to dedicate 800,000 acres of native forest as reserve.

Halocarpus kirkii

Upon retirement Kirk continued to mount botanical expeditions and explored many of New Zealand outer Islands including Stewart, Campbell, Snares, as well as the Auckland and Antipodes groups. A prolific writer, he published more than any botanist of the day with over sixty papers on New Zealand native plants. In addition he had over 30 years of correspondence with settlers, students, and botanists nationally and internationally- often writing over 1,000 letters a year. In 1894 he was commissioned by the New Zealand government to compile a "Flora of the Colony but died four years later before completion. His name lives on in the nomenclature of many New Zealand plants including: *Aciphylla kirkii,,Brachyglottis kirkii, Carex kirkii ,Dracophyllum kirkii, Halocarpus kirkii, Pittosporum kirkii.*

Peter De Lange NZPCN

4.Book Review: Above the Treeline –A Nature Guide to Alpine New Zealand by Alan Mark



This stunning publication is a described as "the first ever" field guide to New Zealand's rich and diverse alpine environment. The author Sir Alan Mark, Emeritus Professor, is a well known and highly respected botanist, plant ecologist, and conservationist. Arguably, he is the most highly respected conservation activist since his involvement in "The Save Manapouri Campaign". This seminal event waged between 1959 and 1972, to prevent the raising of the levels of Lakes Manapouri and Te Anau. Subsequently, Sir Alan has been at the forefront of the interface between science and conservation, partaking in numerous key conservation organisations such as the Conservation Authority, and NZ Forest and Bird. Support his current campaign by linking to http://wiseresponse.org.nz/?page_id=103.

In this book he draws upon his extensive knowledge of alpine habitat, ecology, and botany. Included in this publication is an introduction to the unique alpine habitat, and descriptions of 675 specimens of flowering plants. There are chapters covering conifers, mosses, liverworts, lichens, fungi, and fauna including birds' lizards' butterflies moths, grasshoppers' beetles and other invertebrates. The book is brilliantly illustrated with 1150 colour photographs.

The Alpine Environment chapter is particularly interesting for those of us living in the" Winterless North'. As Mark describes "*probably the most distinctive feature of the mountain environment in New Zealand is the erratic and changeable weather that can virtually bring all seasons within the compass of one day*" he discusses temperature, rainfall, snow, wind, humidity, soil moisture, fog, and all of the factors that create the alpine environment.

The Alpine Flora section is equally as enlightening. For example, 93% of our alpine vegetation is endemic to New Zealand, compared with 80% for the entire vascular flora. Distribution patterns, colours, scent, and flowering behaviour, reflect other alpine specifics. There is a limited range of flower colour, with a predominance of white, cream and yellow. Some alpine plants flower annually but some have irregular random flowering. Distinct alpine communities are created at different altitudes. Low Alpine vegetation includes mixed tussock and scrub, snow tussock, herb-field, bogs and swamp. High Alpine includes fell-field, scree, cushion and snow-bank vegetation.

Inspired, I now plan to hit the Southern Alps with this book in hand to identify the mysterious and marvellous alpine plants. (Nev Arbury)

5.New Zealand's Curious Forest at Curio Bay.

Deep in the Catlins is a magical part of New Zealand – Curio Bay. It is the site of a preserved fossilised forest regarded as one of the outstanding examples in the world. Easily identifiable are stumps, tree trunks branches and remnants of a forest that thrived 180 million years ago. A time when New Zealand was still a part of Godwana and was considerably warmer .The large fossils are so well preserved that individual plants are easily recognisable as the ancestors of our modern kauri, tree fern, and cycads. The reason why plant remnants at Curio Bay are so authentic is because fossilisation occurred when silica replaced the wood of plants which created an exceptionally hard stone. The surrounding rock has slowly eroded through wave action leaving the ancient trees perfectly exposed. Scientific investigation has discovered there were possibly four separate forests destroyed over a period of 20,0000years. The destruction was as the result of volcanic eruptions with accompanying landslides and floods. This contributed to the burying of the forests under volcanic debris .The fossilised forest is just one of the amazing features of the gem that is Curio Bay. Seals, Hector's dolphins, and yellow-eyed penguins all abound in this part of the Catlins to add to the magic.

Yellow eyed penguin(Hoiho)

Hectors Dolphins

Photographs kind permission from
http://planmyplay.co.nz

6 NZ Native

Lichens can be described as the small unusual plants found on rocks, soil tree trunks ,leaves, fences, paths, windows, and a few years ago happily growing on the bonnet of my Volkswagen Beetle. These plants are found throughout the world and there are approximately 20,000 different varieties worldwide. New Zealand alone has 1,800 species. It has been estimated that up to 8% of the earth's terrestrial space is dominated by Lichens!

stereocaulon corticatulum 1

Slow growing and long lived these bizarre plants do not have roots stems or leaves. There common appearance is as a spreading crust or hanging threads. They are usually grey or yellow orange in colour. Lichen can be described as a composite plant comprised of two organisms living symbiotically together for mutual benefit. This unique arrangement involves one particular species of fungus living in a symbiotic association with a specific species of alga to form a distinct plant body. Within the relationship the fungus forms a protective layer to shelter the algae while it carries on with photosynthesis to manufacture food for both partners. Many Lichens have the ability to fix nitrogen. These plants often colonise new habitats.

Whilst generally hardy and long lived, lichens are sensitive to environmental changes, especially atmospheric pollution. Both in the short-term and long-term they are probably the perfect litmus test for global climate change. New Zealand lichens were first collected by botanists on Captain Cooks visits. The first significant collection was by Dumont D'Urville in the late 1820's. In the following years eminent botanists Lyall, Hooker, and Colenso added to the knowledge of New Zealand lichens. Hooker's handbook of New Zealand Flora published in 1867 described 200 species. Lichens are visible in almost all parts of New Zealand. The challenge is to observe and note them.

Pseudocyphellaria homoeophylla 1

Images reproduced with thanks from the website

http://hiddenforest.co.nz/lichens/index.htm