Auckland Gardens and Friends June 2020



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Front cover image: *Magnolia* 'Athene' Photo: Jack Hobbs Auckland Botanic Gardens 102 Hill Road Manurewa Auckland 2105

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The Auckland Garden is the quarterly newsletter of the Auckland Botanic Gardens and Friends

Jack's update

What a strange time Lockdown was. During the month I shared a "bubble" with Sandra and son Chris I often thought of the Gardens and wondered how the plants were faring without our attention.

Returning to work on Tuesday 28 April was a relief, and I am pretty sure also a happy time for our staff judging by the smiling faces that greeted me when I visited the depot. The lawns were long but not quite yet of hay paddock proportions, and although the gardens had many large weeds there were fewer than I expected, no doubt owing to the heavy layer of organic mulch we maintain. The drought probably helped too. Our field team was initially split into two based at different depots, and they immediately got stuck in getting the place presentable again. I feel very proud to have such a dedicated and diligent team who work together so willingly to deliver such great standards.

Walking around the Gardens on my return and seeing so many beautiful plants flourishing quickly lifted my spirits. The Rock Garden always has a few treasures on show, and this time it was the pink *Oxalis glabra* and brilliant yellow *O. fabaefolia* that stole the limelight. As Paula commented, it is ironic that the same genus responsible for some of our worst

Oxalis fabaefolia



weeds also produces such beautiful plants. On the lake edge the tupelos (Nyssa sylvatica) were commencing their colourful autumn foliage display. The persimmon 'Fuyu' in the Potter Children's Garden was laden with bright orange fruit but I was a bit dismayed to see several tui munching away on them despite being only half ripe. The Perennial Garden looked amazing despite the long nealect, with the showstopper numerous clumps beina of Miscanthus sinensis 'Morning Light' in full flower.

However, my return to the Gardens was brief as after just a few days back I had both my knees replaced, an operation that was originally scheduled for just prior to Lockdown. My hope is I will soon be once again chasing a tennis ball and, even more importantly, gardening without restrictions or pain. I was very sad to hear of the passing of Bob Sharp on 16 May. Bob was one of the first staff appointed at the Gardens in the mid-seventies, and he was my boss for a short time when I first started. Bob worked with us for more than 30 years and was certainly quite a character. Our thoughts are with Bev and the family.

One small silver lining that may have emerged from the Covid-19 crisis is that many people seem to have discovered the importance of gardening judging by the way vegetable seedlings flew out the door before and after Lockdown. Growing their own food may be the immediate incentive, but once they successfully grow a few crops the interest will likely spread to ornamentals and gardening generally. What better place to foster this interest than the Gardens.

Jack Hobbs

Editor's note

A fringe but very real benefit of the Lockdown was that the Gardens staff had time to write. Their contributions vary in content and style and all are welcome. They make great reading. I hope the staff will continue to write for the Newsletter.

I would like to thank Jack Hobbs

for "encouraging" staff to write and for spending time polishing their contributions, Bec Stanley for choosing appropriate photographs (usually taken by Jack) and Kim Stretton for her professional and creative formatting and layout which make such a difference.

Visitor Services updates

Staying connected in a time of physical distancing

Just when we thought we were heading into a quieter autumn and winter period after a successful and busy summer, we were stopped in our tracks by Covid-19. All volunteer programmes, workshops and guided walks were abruptly halted in order to keep our staff, volunteers and visitors safe. Soon after, we went into complete lockdown and swiftly turned to new ways of connecting with our communities and stakeholders.

This swift adjustment has provided us with opportunities for engaging with audiences in new ways - from weeklv Garden Advice videos broadcast from Jack's home garden to virtual garden tours and online volunteer catch-ups, we have stayed in touch with each other and learnt new skills along the way. The feedback has been very positive, with thousands of views of our online videos (some of Jack's videos

have had over 5000 views) and a sense of staying connected during a very unusual time in history with us all so far apart.

While we know that these uncertain times are here to stay for a while longer, we also know that these skills that we've added to our tool belts will hold us in good stead as we look to the future. We also saw how important connecting with nature was during times of stress and anxiety, and will continue to encourage people to visit the Gardens, get inspiration from our website and other online channels, and connect with nature in their backyards and neighbourhoods.

Finally, I'd like to say a big thank you to everyone who has supported us and encouraged us along the way. The new ways of staying connected and engaged are still something we are learning, but I believe we have come out of this experience stronger and more connected.

Julia Watson

Changing the guard

On the first Monday of March 2020 our collection curators rotated into

plant collections they have not previously curated to begin five-

year stints in these new areas. There were no farewell speeches or sadness, just satisfaction that they had left the collection they once curated to a good horticultural standard and excitement about the opportunities to learn about new plant groups and continue applying their skills in new landscapes. Six of our seven collection curators have gained a new plant collection by swapping areas, the exception being Pippa Lucas who retains the partly renovated Perennial Garden and the newly revamped events and functions garden "The Glade".

The idea of swapping collections has been discussed over the years to keep up with changes within botanic gardens and other institutions that we closely aligned to such as museums. Auckland Museum moved to a more generic model and away from specialists to develop leadership and to increase key skills for the future. This is set out in their 10-year Master Plan. Over the years botanic gardens in New Zealand and Australia have made changes to the way they manage their gardens. Some examples are Wellington Botanic Gardens reducina the number of collection curators to four from seven and the Roval Botanic Gardens, Sydney swapping collections every two years. These botanic gardens both have their own reasons for these changes, but the common theme is to increase expertise on site, which encourages innovation, sharing of knowledge,

continuing staff development for future needs and maintaining a consistent horticultural standard across the site.

Increasing expertise is important to us because opportunities to move up the career path at the Gardens from a collection curator depends on a senior gardener leaving, so swapping collections every five years allows opportunities to learn and build knowledge and experience on a wide variety of plants. Building a pool of expertise is important so that when a collection curator leaves the Gardens their knowledge and experience is not completely lost.

Change is a process that can take us on a journey through stages before we fully accept it and our fears are allayed. We all react to change differently; some will see the opportunities while others will take longer to accept it. The drive for change was necessary because the Gardens ran with our model of collection specialists for 20 years, and with changing times this was our chance to fit ourselves for the future. As Jack mentioned at our first meeting with the collection curators, "It is better to design organizational change from within than have it done to us".

Understanding that change can be difficult, Jack and the senior field staff (Bec, Shaun and I) put together a plan to work collaboratively with the collection curators. We ran our plan through Natalie Stevens our wonderful Auckland Council People & Performance adviser, who gave us good guidance on communicating the need for change. Our first meeting was held on 25 June 2019 to outline the reason for change and it was an opportunity to hear collection curators' questions, concerns, and general feeling. This was a good first meeting to hear concerns and the outcome was a general positive feeling towards change. In total, three meetings were held where we agreed on the process, timelines and how collections were to be allocated. The collection curators worked together as a team to choose their collection preferences, and they presented this at our final meeting. Most got their wishes, and we only had to negotiate two collection swaps which were gladly accepted.

Once the plant collections were allocated, plans and agreements on collections standards were agreed.

The collection curators had six months to update plant records and plant labels and ensure collections met horticultural standards before handover. There was a certain buzz of excitement as collection curators. started to visualise the opportunities in their allocated areas. This led to a few meetings looking at collections and making changes to our Plant Collections Guidelines. as we involved both the current and new collection curators. This process is still taking place and will take some time to complete.

Change can be a difficult process to go through whether in our personal lives or at work. Ultimately it is positive if we are doing it for the right reasons, we involve those affected and negotiate openly to reach an agreement. By doing this we are living our Auckland Botanic Gardens byline "Where Ideas Grow".

Mere Brewer

Our new gardening recruit

Recently Joanna Mason was appointed as a gardener in our amenity team. Joanna commenced a horticultural traineeship at the Gardens late last year, and it was immediately apparent that she already had extensive gardening skills and a real passion for plants. Joanna began gardening around the age of three in the large 3-acre family garden on their farm near Dargaville. She remembers growing *Ageratum* and carting her ceramic frogs around different gardens.

Joanna's previous career was very

different from gardening. After completing degrees in Operations Management and English she worked in logistics including a stint as USA Operations Manager for Bendon. After returning to New Zealand in 2009 she worked in IT while developing her own garden which featured in the Heroic Garden festivals of 2007 and 2018. She describes her garden as eclectic with native plants, perennials, succulents, fruit. vegetables and basically everything she loves crammed in. Meeting and sharing ideas with the many passionate people who visited her garden inspired Joanna to change to a career she really loved. Although previous roles were more her lucrative, they lacked the fulfilment of working in a garden. She muses it is more important to feed your soul than your bank balance.



Amenity affairs

No two days are the same at the Gardens, whether it be the work we do, the weather or the plants themselves. Over the past few years the team has picked up additional responsibilities for looking after the plantings in the new "overflow" carpark, and more recently the Pacific Pathway and associated nodes. The team has taken on the challenge of maintaining and enhancing these new areas with a great deal of

excitement, which is mirrored by the enjoyment and positive feedback received from visitors who utilise them.

In recent times, we've also seen some new faces arrive in the amenity team, and said goodbye to some familiar ones. Scott Denham, formerly an apprentice and then an amenity gardener here, accepted a new role as a senior gardener down at Pukeiti in New Plymouth. It was a great opportunity for Scott and his family and although we'll miss his contribution to the team greatly, we wish him and his family all the best for their new adventure.

Jonathan Parr, our last remaining apprentice at the Gardens, wound up his time with us during Lockdown. It was somewhat of an anticlimax for Jonathan without his colleagues around after what has been a fruitful period of learning over the last three years. We all wish him well in his new career.

We had a great pair of student gardeners join us over the busy summer period. Zara Skuse and Meg Spittal were fantastic "mucking in" out in the field, over what was a very hot and dry summer. It was safe to say that we were all very sad to see them go at the end of their three-month stint.

Andrew Currey and Joanna Mason have been our recent new additions. to the amenity team, working as horticultural trainees although Joanna has already moved into a gardener role. In the short term, we've taken the decision to move away from an apprenticeship scheme as the Primary Industry Training Organisation current Level 4 learning programme is not compatible with our business objectives. In the interim, our trainees are working towards achieving a Level 3 Certificate in Horticultural Services. The good news is that all the PITO horticultural learning programmes will be up for review soon and so that may give us cause to review our decision.

Shaun Rice

My time at the Gardens

Hi all, I am Jonathan Parr, an apprentice here at the Auckland Botanic Gardens, about to finish my third and final year. I started here as a summer student, and was lucky enough to get the apprenticeship role when the position became available. I wanted to share with you all a summary of the highlights of my 3.5 years working here. I have been very fortunate to be able to learn many skills that I never thought I would learn prior to working here. A handful of these skills include; operating chainsaws, light utility vehicles and tractors, chemical response, workplace first aid, how to respond to fire and other emergencies and an in-depth understanding of plants and seasonal horticultural tasks. Working here was also my first fulltime, 40-hour-a-week job. From a personal point of view, this brought forward a different set of challenges, such as learning how to be part of a team, and ultimately, being a part of a different family. Although this new adjustment was hard to begin with, it is very easy to see how working with the Gardens team is like a family.

I have had the opportunity to visit different gardens and nurseries around Auckland. Seeina how different places undertook their jobs was incredibly valuable to me, as it showed that there is often more than one way to get something done. Over my time, I have seen huge changes, the most notable would be the construction of the overflow carpark, and the first stages of our new Pacific Pathway. These saw great team days with all the new plantings that had been done, which I was particularly fond of. as there had never been many days where we all worked alongside each other to finish a job. The one aspect I am confident in saying was the most enjoyable was observing the progression of my knowledge and skill, and also that of the other apprentices I worked alongside. At the start of my apprenticeship I knew nothing of gardening and horticulture, and so was fully dependant on my co-workers for showing me the ropes and teaching me. Now that I am about to leave the Gardens, I can see how now I am one of those people teaching the

new apprentices. Learning here is so immersed, that only upon looking back do you realise how much you have learnt and grown.

I look forward to paying the Gardens a visit every once in a while, to see how all the plants are growing and how future new developments further enhance the visitor experience.

Jonathan Parr



From the President

So much has changed since my last report with the Covid-19 Lockdown closing the Gardens to all but local walkers. With the Visitor Centre and library closed, volunteer programmes on hold and many staff working from home we have all missed our regular Botanic Gardens "fix". I'm sure we are all wishing for a rapid return to normal life!

The Friends have recently received a very generous bequest from the estate of the late Mr. Neville Edgeworth, a long-time Friends member and frequent visitor to the Gardens. We wish to acknowledge his generosity.

The Friends Committee held its April and May meetings as "virtual-viaemail" which has been an interesting experience: however, business has been carried out as usual and decisions affecting the Friends and the Gardens made. One of those decisions relates to the purchase of the sculpture To the End of Love by the late Llew Summers. Llew was a regular and well-loved exhibitor in Sculpture in the Gardens and it was hoped that the necessary funds could be raised to purchase this very popular work which was part of the 2015/16 exhibition and which has remained in the Gardens since that time. Thanks to funding from the Friends Birthday Gifts to the Gardens,

from four very generous private donors and a contribution from the Edgeworth bequest, supported by his family who visited from Ireland in early March, this purchase can now go ahead.

Sadly, with Volunteer Programmes on hold, the Wiri Rambler's shiny new tractor has not had much of an opportunity to show its paces and the planned Autumn Bus Trip had to be cancelled. The Growing Friends Thursday and Sunday sales have also been cancelled: however, two of the Growing Friends team who live within walking distance of the Gardens have been taking care of the stock ready for a reopening.



The café has, of course, also been closed.

To keep volunteers linked in and connected a series of ZOOM talks and tours, very ably managed by Julia Watson, has been running on Thursday mornings. These have been both interesting and entertaining – a wonderful initiative by staff and possibly to continue into the future.

Through the ZOOM tours we could see that the Botanic Gardens was still in good shape considering the summer drought and the enforced lack of attention from the staff over the Lockdown.

Upcoming events include Soup Day in August, later than usual - fingers crossed for the all-clear by then -and an exhibition by the Friends Painting Group – for details see page 28. A photographic competition is in the planning stages.

This seems a very short report, with life and activities for all of us being so seriously curtailed by the virus for so many weeks! I look forward to being able to report on a return to our usual range of activities in the September newsletter.

Liz Powell

Friends autumn bus trip

As with other events, Covid-19 caused the cancellation of our bus trip to Hamilton Gardens and Moondance Garden on 28 March. We hope we will be able to hold our Spring Bus Trip. This trip will not be

to Hamilton as other gardens nearer home have been booked. Full details of this trip on Saturday 7 November will be in the September Newsletter.

Kate Moodie

Friends membership subscription

Membership subscriptions for the Friends 2020/21 financial year are now due. It was agreed at the 2019 AGM to increase individual, partnership and affiliate subscriptions by \$5.00 each. These increases are noted on the Membership Renewal Form included in this newsletter. Members who joined within the last two months will have their subscription carried over into the new financial year.

Subscriptions can be paid either by posting a cheque, by eftpos or cash

at the Visitor Centre or by direct deposit ASB 123011 0757619 00. Please put your name on the bank transfer and indicate that this is a membership renewal.

Thank you.

Growing Friends report

The Growing Friends have had little action and have little to report. It seems that we are probably a month away from being at the Gardens and maybe more before we are open for sales, but I guess there will then be bargains to be had.

As normal for winter there will be no Sunday sales until 6 September (God

and the virus willing): keep an eye on the Gardens website for updates.

For me, having a garden at this time has been wonderful: the working outdoors in the sunshine, and the rain we had has given lovely autumn growth and a flush of flowers and winter vegetables.

Bronwen Rowse

Wiri Rambler

After a long close down that was due to construction work blocking our path at the Gardens, we were delighted to be operating again at the end of October. Little did we know what was ahead!

We have had a busy summer with numerous bookings from groups of older people who have given us very positive feedback. Their enjoyment of seeing areas of the Gardens which they were unable to walk to makes our time very worthwhile. The purchase of a new more powerful tractor to replace our old one was greeted with enthusiasm from our team drivers, but most of them did not get a chance to drive it. Three new volunteers ready to join us were unable to start.

Owing to the inevitable close contact with unknown people on the Rambler it is likely that we will be on holiday again for some time.

Friends winter Soup Day 2020

Soup Day has been planned for a later date than usual in the hope that life will have returned to normal by that time! So, a late winter rather than the usual Midwinter Soup Day this year.

Numbers are limited so get your booking slip in to the Friends early to be sure of a ticket.

This year, Friends member Dr Ross Ferguson will be talking to us about Mrs Delany's paper mosaicks – with lots of pretty pictures.

So, join us for great food, good company and a fascinating talk.

Any questions, phone Liz Powell on 09 630 1259.



To Book

Please complete and post the enclosed booking slip to Friends of Auckland Botanic Gardens, 102 Hill Rd, Manurewa, 2105 or leave it at the Visitor Centre.

Payment

Payment can be made

- by enclosing a cheque with your booking slip.
- by cash or eftpos at the Visitor Centre. Please leave your booking slip with the staff.
- or by direct deposit to ASB 1230110757619 00. Please ensure that your name and "Soup day" are on the bank transfer and the booking slip is posted.

Please note that if group gatherings are still not recommended by this date your payment will be returned.

Seasonal activities

Since returning to the Gardens at Level 3 under Covid-19 restrictions we have caught up with our autumn tasks, working in two different bubbles. The "More the merrier" team (led by me) was based at the Unitec building and we maintained the gardens on the eastern side of the property. The "Rice bubbles" team (led by Shaun Rice) maintained the other half of the gardens. Working in two different bubbles to maintain the gardens worked well and had many positive outcomes. We were able to focus in our allocated areas and found efficient ways to tackle big tasks. Under Level 2, we are now one big bubble again and getting on with our winter tasks.

Two group activities we are tackling this winter are pruning roses and cleaning harakeke (flax). There are about 3000 roses in the collection and two-thirds (mainly modern roses) will be pruned by one third of their growth, while the heirloom roses are lightly pruned. When pruning roses, we usually start with the removal of the three D's - dead, diseased and distorted canes. The desired look we want after pruning a rose is an open, vase-shape. This allows light in the centre of the plant and helps stimulate the growth of new buds and canes. Harakeke are cleaned by removing the outer leaves, reducing each fan to 3 to 5 leaves. This allows light and airflow into the bush and

phormium 'Black Rage,



helps reduce the onset of pests and diseases.

Now is the time to plant fruit trees and ornamentals for colour and structure. Fruit trees are now available at garden centres. Work in ample amounts of compost into the soil before planting. Check out our website for the Top 10 fruit trees for Auckland: http://www. aucklandbotanicgardens.co.nz/ media/2076/fruit-trees-web.pdf. lt is also the ideal time to prune fruit trees such as apples, pears, feijoas and figs. This is to control the size of the tree, allow light and air flow circulation, increase fruit production and to remove any dead, diseased and distorted limbs. Choose a nice sunny day to prune to minimise the onset of pests and diseases.

Satsuma mandarins

In the Edible Garden we've planted Florence fennel 'Milano', onion 'Red Bunching', kohlrabi, kale ('Red Russian' and 'Dazzling Blue'), leek 'Winter Giant', 'Rainbow' beets, broad beans, pak choi 'Shuko' F1 and winter annuals such as *Viola* Edible Flower Mix and *Calendula*.

We are also lifting and dividing herbaceous perennials. Add ample amounts of compost when replanting divisions to help support soil structure and help condition the soil. Perennials are divided every few years to control their size, rejuvenate for flower abundance and to increase their numbers for larger displays.

Winter is also a good time to renovate beds by removing old tired plants and removing dead plant material to keep pests and diseases at bay.

Mere Brewer



The Children's Garden orchard

Background

north of the The area Potter Children's Garden was chosen as the site for an educational display orchard mainly for its accessibility for children. The soil type is a moderately heavy clay loam which is representative of many residential soil conditions in Auckland. To improve growing conditions we added an extensive application of compost before planting. Since then we have added mulch, humic acids, periodic liming and regular use of soil biology enhancers such as Pacific Biofert.

Over the last 9 years, the orchard has generally matured well and has been particularly useful as an educational reference for both school groups and members of the public. In particular, "Drop n learn" sesions on fruit tree selection, planting, pruning and training have provided a wealth of practical information to keen home gardeners.

Certain fruit trees have not performed well in the heavier soil conditions, pears and avocados in particular. These fruit trees demand better structured soils with superior drainage. In spite of the heavy soil conditions and failures of a few, the majority of fruit trees have performed well.

Recommendations

Plums in particular grow well and cultivars such as 'Sultan' and 'Hawera' which are of modest size with reliable summer fruiting are ideal for the home garden.

Citrus also generally perform reasonably well, although mandarins are the exception and repeatedly suffer from extensive borer damage. Recommended performers include:

- 'Yen Ben' lemon
- Navel oranges
- Bearrs (Tahitian) lime
- 'Golden Special' grapefruit
- Lemonade (old fashioned fruit with a taste reminiscent of lemonade).

These are all worthwhile winterbearing fruit trees for the home gardener to consider.

Apple cultivars have performed inconsistently. The better performers include:

- 'Initial'
- 'Granny Smith'
- 'Golden Russet'
- 'Liberty'
- 'Captain Kidd'.

Feijoas performed well and are great options for giving home gardeners fruit during autumn and early winter. They respond well to trimming and can be planted as fruit-bearing hedges. Most feijoas fruit best when two or more cultivars are planted in close proximity. However, 'Unique' is entirely self-fertile and would be a good option for those who have room for just one.

Three clumps of the Banana 'Pisang Awak' can be found in the south-west corner of the orchard immediately adjacent to the Children's Garden). The extensive shelter in this location and north-facing aspect have resulted in this tropical planting performing remarkably well, with regular clusters of small, fingersized, sweet bananas fully ripening during the autumn and early winter period.

Persimmon 'Fuyu'



The fig cultivars ('Brunoro Black' and 'Mrs Williams') do not fruit consistently well every season, although they fruited well this season, perhaps due to the hotter summer this year. They also benefit from periodic watering in those later, hot, dry summer months when fruit are expanding and ripening. 'Brunoro Black' is smaller than 'Mrs Williams' and is probably a better option for the home gardener. However, the variability of summer weather in Auckland is potentially problematic in terms of achieving fruiting consistency.

Peaches have been somewhat inconsistent due mainly to brown rot, which is prevalent in the humid Auckland summers. However, 'Golden Queen' is a reasonable performer in drier summers and comes reasonably true from seed.

The non-astringent persimmon 'Fuyu' is a handsome and productive small tree. Their display of autumn colour gives them great ornamental merit and they yield delicious, jellylike orange fruits in the late autumn and early winter.

The Children's Garden orchard is a well-used destination. It is worth visiting to view fruit trees which grow relatively well in Auckland heavy, clay-based soils.

Laurence Speedy

Michelia or Magnolia

Family connections

When taxonomists first classified plants under the family Magnoliaceae, magnolias and michelias were put in separate genera. More recently though, advances in plant science have seen a dramatic change in the taxonomic landscape and DNA analysis has seen several changes in how plants have been named and classified. In terms of the Magnoliaceae, michelias have (for better or for worse) been grouped with their other relatives into the genus Magnolia. A point of distinction between the two was that magnolias generally flower from a terminal bud at the end of their branches, whilst michelias typically have their flowers springing from axillary buds. Plant genetics now tells us a different story and they are lumped together in one big happy genus.

Auckland's temperate climate allows both magnolias and michelias to perform well here as ornamental trees. In our Magnolia Garden at the Botanic Gardens, we have more than a couple of hundred representatives of the Magnoliaceae, including *Magnolia* and what were previously known as *Michelia* and *Manglietia*. *Liriodendron* is another member of the Magnoliaceae family but was granted a reprieve when the recent reclassification occurred.

Plants in the Section *Michelia* of *Magnolia* are perhaps more versatile in their use in the home garden given that the majority of them are evergreen, generally respond well to regular pruning and produce an abundance of often strongly fragrant flowers in late winter and into the spring months.

Magnolia 'Genie'





Magnolia 'Bubbles'

The late renowned plant breeder, Os Blumhardt, and more recently, Mark Jury recognised the potential of michelias as ornamental plants long ago and have done a considerable amount of work over many years breeding, evaluating and selecting them for their ornamental value. 'Bubbles', 'Mixed-up Miss' and 'Silver Cloud' are some of Os Blumhardt's recognisable more introductions, whilst Mark Jury has found recent success with his range of "fairy magnolias" with starshaped flowers in shades of cream, white and pink.

The breeding work with michelias has not been solely down to these two local breeding pioneers as a few new cultivars have found their way recently onto the retail market. *Magnolia* 'Lemon Fragrant' is a recent introduction from Thirkettle Nurseries. It is a large shrub or small tree with a pyramidal habit that can ultimately reach a height of 4 m and width of 3 m. As its name suggests, it produces an abundance of large lemon scented white flowers during the early spring months. *Magnolia* 'Paton's Pink', another Thirkettle introduction, is also a large shrub or small tree that can grow to a height of 3.5 m and width of 2.5 m, with dark green leaves and a pyramidal growth habit. Pink flowers cover the plant in the spring months and it grows fairly vigorously.

Michelias can be used in various ways in the garden, either as specimen trees or planted closely and clipped into a hedge. However, their usefulness is not solely confined to these cultivars as species such as *Magnolia figo* and its close relatives *M. coco* and *M. laevifolia* are similarly useful in the garden.

Shaun Rice

Camellia species as ornamentals

Camellias have for many years been an integral part of the traditional Kiwi home garden. They are adaptable, versatile and evergreen, but it is their beautiful blooms that have captivated generations of gardeners. Many put on a great floral display in autumn and winter when there are generally very few other ornamental trees and shrubs in flower. Intensive hybridisation over generations has provided gardeners with a wide selection of cultivars with blooms of enticing form, improved colour palette, and even fragrance.

With historically so much focus on showy hybrids and cultivars though, there has been relatively little recognition of the aesthetic value of many of the *Camellia* species. We will attempt to redress this through highlighting some of the better performing *Camellia* species that we have growing at Auckland Botanic Gardens.

The Camellia Garden was first established back in the early to mid-1980s. Most camellia hybrids, cultivars and species displayed within the collection were sourced from the late Neville Haydon's nursery, Camellia Haven. We have now collected upwards of two hundred *Camellia* cultivars and hybrids as well as 59 different *Camellia* species, including five



Camellia yunnanensis

yellow-flowering species.

The large number and diversity of *Camellia* genotypes within the collection has allowed us to monitor their performance in Auckland conditions over the last 30 or more years. With camellia petal blight afflicting so many beautiful camellia cultivars and hybrids, high priority has been given to identifying those camellias that remain healthy, showing little or no ill effects from the blight. We have observed that many species have shown reasonable resistance, certainly more so than their hybridised cousins.

With such a variety of species to choose from, we established a set of criteria to assist us to robustly identify those species that we could recommend as well-performing ornamental garden plants. The criteria included:

- flowering quantity and quality
- pest and disease resistance
- ease of care and maintenance
- size and form at maturity
- versatility in a home garden.

Based on these parameters, we determined that the following ten *Camellia* species could be recommended as good reliable ornamental plants in Auckland's conditions. Although some of them may be difficult to source, they would be certainly worth the effort if you can find them.

- *C. nitidissima* var. *nitidissima* (syn. *C. chrysantha*) is a small tree with golden yellow flowers; it can grow to a height of 5 m and 2 m width.
- *C. yunnanensis* is a small tree with lightly scented, white flowers; it can grow up to 7 m tall and 2.5 m width.
- *C. transnokoensis* is an upright large shrub or small tree with small, fragrant, white flowers; it can reach 2 m in height and 1 m width.
- C. fraterna is a small tree with

small, scented, white flowers; it can grow up to 5 m in height and 2.5 m width.

- *C. tsaii* is a large shrub or small tree with lightly scented, small, white flowers; it can grow to a height of 3 m and width of 1.5 m.
- *C. lutchuensis* is a large shrub or small tree with small, scented, white flowers; it can grow to a height of 3 m and width of 1.5 m.
- *C. flava* is a vigorous large shrub or small tree with yellow, pendulous flowers; it can reach a height of 3 m and width of 1.5 m.
- *C. impressinervis* is a large shrub or small tree with lemon yellow flowers; it can grow to a height of 3 m and width of 1.5 m.
- *C. cuspidata* is a small tree with white single-form flowers; it can grow to a height of 2 m and 1.5 m width.
- *C. minutiflora* is a small shrub with a weeping habit and small, lightly-scented, white flowers; it will grow to a height and width of 1.5 m

Unfortunately, *Camellia* species are becoming increasingly difficult to find in the retail market, owing in part to the closure of several specialist nurseries. The collections of camellia species held in botanic gardens are therefore becoming an increasingly important resource which nurseries could potentially tap into. As many of these species are endangered and have conservation status in their countries of origin, one sure-fire way to ensure their ongoing survival could be through making them more readily available to home gardeners.

It is an important part of our role as a Botanic Gardens to educate and showcase the diversity and versatility of all types of camellias by promoting the best garden

Camellia nitidissima var. nitidissima

subjects and advising on their use in the home garden. Promoting and preserving what species we have within the collection is therefore crucial to ensuring this continues to happen and that the Gardens remain a popular destination for our visitors.

> Shaun Rice and Mark Fielder



Book review: Totara

Totara: a natural and cultural history (2017) by Philip Simpson

Did you know that the world's largest cosmetic companies buy a sought-after chemical extracted from totara?

Totarol, a chemical found in totara wood, has medicinal properties used worldwide in the cosmetics industry. You can find it in hair products and toothpaste to name just a few. Perhaps even more surprising is that totarol is extracted from old farm fence posts when they are chipped and the totarol is forced out using compressed carbon dioxide. The presence of totarol is also why windows made of totara take days to dry when you paint them with oilbased paint.

Totara, a book by Philip Simpson, sets out everything you ever need to know about this magnificent native forest tree. Simpson is well-known for books focussing on just one tree, having also written books on the cabbage tree and pohutukawa. Totara is a very important tree to Auckland Botanic Gardens of course, with the large remnant totara scattered over the entire site.

The book covers, over ten chapters, the tree's taxonomy (there are five species/subspecies), its relatives and biogeography, physioloay, ecology, cultural values, uses and history of this tree in New Zealand. The first chapter sets the scene with an excellent introduction to conifer evolution and New Zealand podocarps. It also highlights (with great photos) some cousins of totara from former Gondwana continents (including the Blue Mountains Dwarf Pine Pherosphaera fitzgeraldii which is a curious prostrate podocarp I saw growing at the Blue Mountains Botanic Garden in New South Wales).

aspects to it than I was aware including its use for bags and food storage baskets as well as roofs for shelters and houses. There are trees standing today that still have scars on them from bark removal by Maori, which did not kill the tree, and these are noted as archaeological sites. There is the sobering chapter on the European removal of totara for "every kind of construction". Totara "proved too valuable to conserve" and was used not only for housing, but also fences, machinery (such as water wheels), railways, furniture, bridges, water tanks, telegraph poles - it's a wonder there are any left. The book ends with stories of the conservation movement in the 1970s to protect forests but ultimately concludes totara is still in a battle for survival from possum browse (particularly for Hall's totara), urban development and pivot irrigation. Simpson's wish is for a totara national park and that "each giant totara should have its roots protected from trampling". We can at least do the latter at the Gardens to protect our mighty trees.

The book is full of colour photos, clear tables and diagrams, and in an easy to read style that you can dip in and out of a chapter at a time. For a tree that's been so important to both Maori and European life it is a privilege to be presented with its full story, as Simpson says "bringing the splinters of totara history together".

One chapter focusses solely on totara bark which had many more

Bec Stanley

Private vs. public

Comparisons of working in the private sector at Rainbows End Theme Park and at the Auckland Botanic Gardens

I started my role at Rainbows End Theme Park in 2005. On my first day the CEO showed me around the park and told me the core part of my role was to make the grounds and gardens here at Rainbows End look AMAZING. I was told that how I did that and what plants and colours I used was up to me, "Just stick to your grounds department budget". The joy of working in the private sector had started!

Not everyone that came to the Rainbows End came there to do the rides; often grandparents and caregivers would visit with family and kids and they would just want to sit and relax in nice garden areas while the kids played. We also had a lot of tourists both international and local who all wanted to take photos in front of the gardens for holiday photo memories and we also had a lot of corporate company functions at night with high profile companies like Air New Zealand and Frucor and many more.

I always planned what I was going to grow a season ahead. Most of the beds were annual colour and were changed twice a year with a lot of standard white 'lceberg' roses and clipped *Lonicera* hedges around beds. The roses have a formal look for photo opportunities and corporate visitors, while clipped hedges kept the kids off the gardens.

I had to choose plants for seasonal events such as Christmas and Halloween. I used lots of reds for Christmas and lots of orange for Halloween, also colours in the rainbow that were on the company logo: orange, yellow, purple, hot pinks with lots of white to set other colours off.



As at the Gardens I chose seasonal plants for colour impact and interest for our visitors. One big difference at the Gardens is being able to showcase more information on the plants being used to help visitors with their own gardening choices.

At Rainbows End you always had a lot of people asking you what different flowers were. This was easy to answer, I just told them to go down to Mitre 10 and buy the potted colour that I used. The big difference at botanic gardens is we grow such a wider selection of plants, there is a lot more to be learnt and that is a challenge I am really enjoying. I no longer send anyone to Mitre 10 for plants, I suggest try Google or the Auckland Botanic Gardens library!!

So from a private sector gardening career to a public sector role at Auckland Botanic Gardens there is a lot of crossover in how I plan my gardens. For both the outcome is the same: to make displays look AMAZING!! In that respect, my original goal that was set for me 15 years ago has not changed.

Angela Anstis

Geoff Etherington's aloes

In 2015 the Gardens were privileged to be gifted a significant Aloe collection of about 300 different Aloe species, from the late Geoff Etherington who had lived in Nelson. Geoff had been an avid plantsman who created "Gardens of the World"in Nelson; a private garden open to the public that features a wide range of plants from around the world. He had a special interest in aloes and he collected them extensively, including a number of rare species, for most of his life. Sadly. Geoff Etherington died in 2015, but prior to this he had arranged for the Gardens to get the majority of the collection.

On 27 July 2015 a small team of Gardens staff went to Nelson to select aloes and put them onto the truck for transport back. Geoff's aloe greenhouse was amazing completely full of potted aloes on rolling benches, with everything from grass to tree aloes. The variety of flower colours, shapes and forms was a sight to behold. We recorded and labelled each species, uplifting them and getting them safely onto the truck without damaging the plants (or ourselves). We achieved a lot with help from Kim Svenson (our truck driver, owner of Plants on the Move I td) and Jason Beattie (who was Geoff's head gardener at

"Gardens of the World").

Two days later the truck arrived back at the Gardens. We unloaded the aloes at the northern depot and sorted them out with accession tags.

A month later we planted the collection into the African Garden, Rock Garden and the covered courtyards, a huge task with help from most of our staff. When the courtyards were demolished, those aloes were transplanted into either the Rock Garden, African Garden or nursery.

Since planting, the plants have doubled in size and seem quite healthy and happy in the ground. Occasionally a few plants need some extra care in the nursery for a while due to weather-related disorders, but not many. I have been recording *Aloe* flowering times each week with help from my regular volunteer, Judith Notley. This research has been entered onto our IRIS plant database and will be continued to see if the weather and seasonal changes affect the flowering times.

Andrea Wright

At "Gardens of the World", back row from left: Mere Brewer, Emma Bodley, Jack Hobbs, Tony Carson and Andrea Wright. Front row from left: Jason Beattie and Kim Svenson



Seed storage

We apologise for leaving out a photograph in Michael Reid's article on seed storage in the last newsletter. His account was very clear but we repeat his instructions this time with the photograph.

The items needed to make your own low humidity seed "library" are available at low cost in the hardware store:

- a sufficiently large sealable Sistema-type container
- calcium chloride flakes (sold as "DampRid")
- a small glass or plastic jar that will fit in one corner of the container
- small paper envelopes to serve as seed packets.

Half-fill the jar with the flakes, put the jar and your seed packets in the

"library", and seal the lid. The calcium chloride will absorb excess moisture in the "library" air, and dry any seeds that are still moist, becoming liquid in the process. While undissolved flakes of calcium chloride remain in the jar, the RH in the seed store will be close to 35%, a humidity that will ensure that the seeds remain viable for several years. Once all the flakes are dissolved, discard the liquid, and replace the flakes. If you have a wellsealed container, this seldom will be required, perhaps once a year.







"Creativity Unlocked 2020"

On now!

The Friends of the Garden Art Group are delighted to announce that their annual art exhibition will be going ahead. "Creativity Unlocked 2020", runs from 1 - 28 June in the Huakaiwaka Visitor Centre Gallery.

This year we are showcasing the creative diversity of our members with arts and crafts, as well as the usual paintings and drawings, worked on during the Covid-19 Lock-down.

We look forward to seeing you there!

Chathams tales

Every trip I have made to the Chatham Islands has been very different, one of the reasons I keep going back. Variables include the weather, time of year and the personalities in the tour party. The tour group on my most recent trip in February was comprised of many friends and gardening acquaintances including the irrepressible Lynda Hallinan. photographer extraordinaire Sallv Tagg, nurseryman and erstwhile tennis rival Malcolm Woolmore. and several familiar faces from my previous tours. So we were always going to have lots of fun, with plenty of plant knowledge and a shared interest in adventure

We were collected at the airport by Toni Croon, the owner of Hotel Chathams and a most entertaining and informative guide who grew up on the Chatham Islands and seems to know everything and everyone.

Our first stop was in a paddock overlooking Petrie Bay with views towards Waitangi, the main settlement. Scattered around our bus were craggy old akeake (*Olearia traversiorum*), the iconic tree of the Chatham Islands. Most were bent almost horizontally, an obvious indicator of the south-westerly direction of the wind and its extreme velocity. Akeake is prevalent near the coast where it has many similarities to pohutukawa, with dark areen. leatherv leaves with white undersides. It should not be confused with the very different and unrelated akeake (Dodonaea viscosa) that occurs on the mainland. One day Malcolm and I had heard about a redfruited form of Astelia chathamica that might be found near Te One, so we decided to visit the DOC nurserv located at that small settlement. I imagined we would be walking for miles towards the coast in pursuit of this rare form, so it was a great surprise when we encountered large clumps with bright red fruit growing in garden beds in front of the DOC office

Attitudes towards DOC seem very positive, the locals appreciating their environmental protection efforts. At the DOC nursery a wide range of locally sourced Chatham Island plants are raised for restoration projects on the island. These include the endemic soft speargrass (Aciphylla dieffenbachii) and the Chatham Island forget-me-not (*Mvosotidium hortensia*), widely regarded as the iconic plant of the Chatham Islands. On a visit to Wharekauri we viewed numerous Chatham Island forget-me-nots growing along the foreshore, the healthiest specimens in relatively sheltered, free-draining

rocky places, often encircled with a mulch of seaweed.

Behind the beach were clumps of Chatham Island flax, a tough plant that many consider it to be a distinct species of *Phormium* that lacks the strong fibre that makes harakeke such an important weaving plant.

The beautiful soft speargrass (*Aciphylla dieffenbachii*) has soft fern-like foliage and upright plumes of yellow flowers in summer and is found mainly on steep coastal cliffs. I managed to secure a few plants and am trying them in a free draining cool spot in my garden. Next time I am at the beach I will get a few handfuls of seaweed to put around them.

One of my favourite visits was to the Nikau Conservation Area where the wonderful Chatham Island nikau (*Rhopalostylis* sp.) arises above the surrounding vegetation, remaining handsome and seemingly unblemished despite being fully exposed to the strong prevailing winds. We grow it extensively at the Gardens where it has become one of our feature trees

The best garden on the Chathams is Admiral Garden, where Lois and Val Croon have created a wildlife haven that attracts an abundance of birds, bees and butterflies such as red admirals. Plants that entice this wildlife include the native nettle (*Urtica australis*), non-invasive types of *Buddleja*, hebes, and numerous wildflowers. Large drifts of Chatham Island forget-me-not are a mass of blue in October.

Our last visit, on the day we were due to fly out, was to the most popular tourist attraction on the Chathams. the Stone Cottage. This historic building was built from sandstone in 1866-1868 beneath the imposing volcanic outcrop Maunganui. Helen Bint lives there alone, tending her remote garden and leading an interesting and fulfilling life. Salt laden winds dashed attempts to grow roses, but many daises do well, especially marguerites and cinerarias, with self-sown seedlings popping up in the gravel paths. To our amusement there were tomatoes in the outhouse, the transparent roof making it a mini greenhouse. It is this sort of ingenuity that makes the Chathams such a special place.

Jack Hobbs









Right: - Kopi tree (karaka, *Corynocarpus laevigatus*)



Magnolia 'Vulcan' and Kereru. Photo: Jack Hobbs



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