

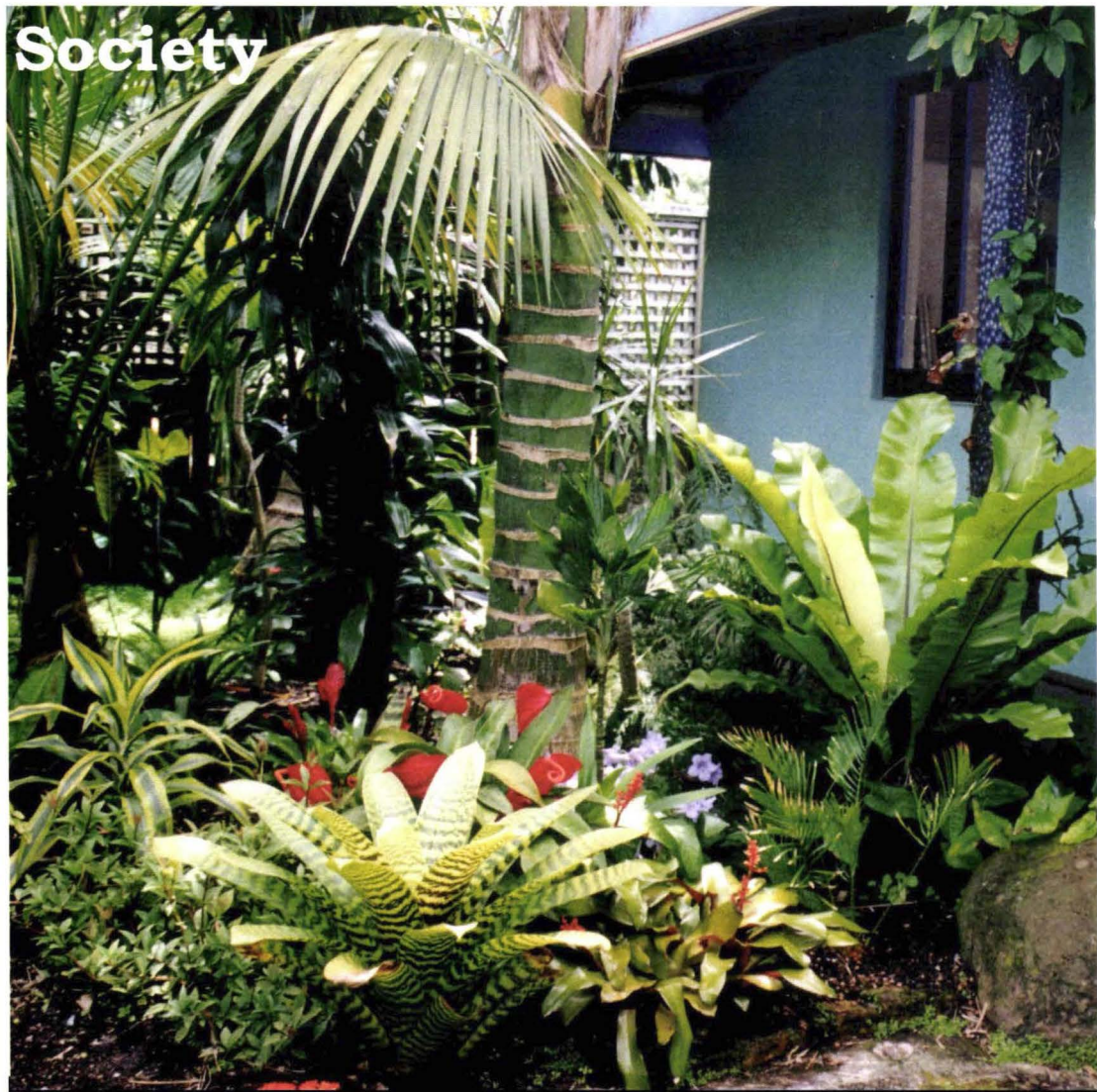


Winter 2003

SUBTROPICALS

SUBTROPICALS

Society



**INAUGURAL DISPLAY & SALE at the
Freemans Bay Community Centre**

52 Hepburn Street, Auckland

Sunday 29th June 10.00 am - 5.00 pm

Plant Sales Entry \$3 (09) 376-6874

SUBTROPICALS

is a forum for the exchange of ideas and information on the identification, growth requirements and sourcing of native and exotic subtropical plants (and tropicals) suitable for gardens in the milder parts of New Zealand.

WINTER 2003

Volume 2 Number 2

CONTENTS

- 5 Conference 2003
6 Front cover story - bougainvillea
10 *Iris japonica* – *Ajuja* Catlins Giant
11 The Great Pretenders
12 Book review
15 *Aloe pluridens*
16 *Stapelia grandiflora*
19 Growing cattleyas and laelias as epiphytes in the garden
22 Transplanting tree ferns
23 The cool subtropics – part four
27 *Archontophoeniz cunninghamiana* – in seed
28 Two evergreen subtropical bulbs
Hippeastrum aulicum
Worsleya raynerii
34 Fuchsia – a forgotten subtropical genus
37 *Chamaedorea microspadix* – a palm for small spaces
38 Bromeliads for winter colour
Aechmea weilbachii, *Canistropsis billbergioides*
Wittrockia cyathiformis
39 Questions & Answers
40 Plant sources
41 Back cover story – *Alberta magna*
42 *Asplenium oblongifolium*

**SPRING ISSUE
COPY DEADLINE**

All copy must be received by the 31ST July 2003

Countdown!

In only just over a fortnight, our first Conference for members and guests will be held on Saturday the 28th June (details on page 5). And on the following day – Sunday the 29th – the public is invited to visit our Display & Sale Day being held in the Freemans Bay Community Centre.

Many members have already enrolled for the conference, ensuring its success. Those of you who wish to come but have not yet enrolled, will need to do so promptly. Catering requirements mean that we cannot accept last minute bookings.

SUBTROPICALS has been very fortunate with the publicity it has received for the events. And more to come! Included with the winter issue is a poster that we hope you will find a very public place to display it. As a result of this publicity, enquiries have been received about the events, including one from the Netherlands asking for details of the conference!

Three of our landscaping members are setting up the plant display. In the insert on the Display/Sale, we are appealing for plants or cut flowering stems and branches to be used to make the display as colourful as possible. There are so many subtropicals that are winter blooming.

Also included with this issue is the index for volume one of **SUBTROPICALS**. This has been painstakingly put together by Rosemary Steele, for which we are most grateful.

Looking forward to seeing you soon.

Marjorie Lowe
Editor

SUBTROPICALS

ADVISORY MEMBERS

Grant Bayley
Steve Benham
Robin Booth
Keith Boyer
Dick Endt
Russell Fransham
Jim Gilchrist
Terry Hatch
John & Pauline
Isaachsen
John Kenyon
Nick Miller
Barbara Parris
John Prince
Tim Saunderson
Rosemary Steele
Brian Timms
Martin Walker
Peter Waters

SUBTROPICALS magazine

EDITOR

Marjorie Lowe
Phone/fax –
(09) 376-6874
marlowe@
subtropicals.co.nz
PO Box 91-728
Auckland 1030

COVER DESIGN SCANNING

Grant Bayley
Ph (09) 849-4505
grant.bayley@
clear.net.nz

SUBTROPICALS CONFERENCE – 2003

The 28th June is nearly here already. Those of you who wish to attend the Conference, but have not already sent in your application and cheque, will have until Tuesday 24th to do so. Although the Conference is not open to the public, members are welcome to bring a guest(s). Cost is \$45.00 per person(s) and includes lunch, morning and afternoon tea/coffee. Guests' names are required so that nametags can be prepared. The deadline is in order that the number of members coming can be given to the caterers.

The programme for Saturday is as follows:

- 8:45am to 9:30am – Members and their guests check in and uplift their nametags. Those bringing plants for the silent auction, please give them to the receiving officer.
- 09:30am - Welcome- to be followed by two talks with question time.
- 10:30am - Morning break for tea/coffee etc.
- 11am - Three talks with question time.
- 12:30pm - Lunch and socialising.
- 2pm - Two more talks.
- 3pm - Afternoon break
- 3:30pm - Question time on any subject. Please send written questions to Box 91-728, Auckland. This would enable more technical questions to be answered.

And to end the day, the results from the Silent Auction with treasures? to be taken home.

SPEAKERS

- Bromeliads Peter Waters (Director - International Bromeliad Society)
- Cordylines Russell Fransham (landscaper and plantsman)
- Ferns Dr. Barbara Parris (formerly of Kew Gardens)
- Gesneriads Nick Miller (plantsman and writer)
- Natives in the subtropical garden
Colin Clark (native plant specialist)
- Succulents Martin Walker (cactus and succulent specialist)
- Interesting & unusual plants from my garden
Robin Booth (subtropical plant specialist)

With members coming from at least as far away as Kerikeri and Lake Tarawera, there should be much to talk about. We hope everyone will have an enjoyable time - so good that they will wish to repeat the experience next year.

FRONT COVER STORY

BOUGAINVILLEA

Edith McMillan

Thoughts of the 'romantic' tropics are mostly invoked by images of waving palms (usually by golden sands at the edge of the sea), bananas heavily laden with golden fruit, brightly coloured hibiscus blooms and, not least, cascades of intensely hued bougainvillea flowering canes draped over buildings, fences and trees. Like those childhood memories of endless summers, the truth is a little different. But dreams can be turned into reality and in our mild climate, the less tropical species of these plants grow to perfection.

The native habitat of bougainvillea is tropical South America but, even more so than hibiscus, they are very adaptable plants. Although listed as a climber, bougainvillea is a woody, scrambling shrub and climbs by sending out sturdy canes with hard, curved thorns that hook themselves onto any available host. As they age, these thorns become woody and it is their lethal aspect (vicious would be better word) that deters so many gardeners from using what is a very desirable garden subject.

Bougainvillea thorns are **not sacrosanct**. Strange as it seems, it has not occurred to gardeners that removal of the thorns as they appear will solve the problem. In any case, the canes are better trained by tying them to a support and, by constant, formative pruning, make the vine grow in the way you want. Thomas Church, probably the most influential landscape architect of the twentieth century, always travelled with secateurs in his briefcase and was not above doing a little cutting to illustrate his ideas to a client. In his book, 'Gardens are for people' he frequently advises pruning rather than cutting down and writes 'Pruning shears, wisely used, are the gardener's best friend'.

North of Auckland, in Riverhead, a long (about twenty metres), covered terrace has that old favourite, *B. Scarlett O'Hara*, planted at the base of each roof support. The trunks are kept completely free of growth and the canes are trained horizontally along the outer edge of the roof. Lit by tiny Christmas lights, the vines make dinner on the terrace a lovely experience. And in Ponsonby, on the sidewall of an old two-storey house used as a restaurant, a closely clipped bougainvillea flowers for months. It certainly is a toughie for it is totally surrounded by the tarseal of the driveway alongside. Regular clipping is the basis of both topiary and bonsai – vigorous vines and climbers should receive the same treatment if they are not to become a shapeless mess.

The woodiness of bougainvillea is such that in some areas it is trained as a street tree. Perhaps it could be called a climbing tree! The Queenslander who carefully threaded his bougainvillea through the railings on his wide verandah lived to rue the day. Some time later the 5cm+ thick stems had crushed and reduced the entire railings to matchwood.

Bougainvillea is a plant for full sun. Unlike most climbers that prefer to grow with their roots in shade and reach up to the sun, it needs its roots also to be in sun. Where the ground is poor and dry, the production of the colourful bracts seems to be much higher than when grown in good, moist soil. There the growth seems produce lush leaves and fewer bracts.

Not only will bougainvillea survive tough growing conditions, but the hardier varieties are some of the few plants able to survive and thrive in - 'Salt Zone One, which is the most exposed of sea-coast gardens - those actually on the ocean front, across the road from the sand dunes or on the cliffs above'. And - 'plants must be able to survive direct salt deposits and even seawater droplets at times. Blasting from wind-blown sand particles is also a hazard which these plants must endure' (Marcelle Monfries - Seaside Gardening in Australia).

It is this ability to survive that makes bougainvillea such a good subject for growing in pots. In the Mediterranean, where the shoreline is frequently rocky, without soil and receives almost no rain for about four months in summer, its popularity is ensured. In pots, they can be grown as espaliers, standards, bonsai and even climbers. Wind resistant and requiring minimal water, it is also a great plant for high rise balconies that face north.

Although almost all bougainvilleas are described as tropical, some are surprisingly hardy. If they are hit by frost, they come back very quickly in spring. Where frosts are regular but not too heavy, planting under the eaves on a north-facing wall is usually adequate. If they survive and grow for three years, they then seem to be able tolerate fairly low temperatures.

The colour of the bracts lasts for a very long time. While many tropical plants need heat to trigger profuse flowering, despite our long, cool and wet springs, bougainvilleas start colouring up often as early as September. Positioned well, some plants are still in sporadic bloom in early winter - a tremendous return for only some regular pruning. If this is not done however, the more vigorous varieties will soon overwhelm their less vigorous neighbours. If left for a few years, there may be no alternative but to remove the plant entirely, as it is probably now beyond remedial measures.

.....Of the eighteen species of bougainvillea, most breeding work has been done using only the species - *glabra*, *peruviana* and *spectabilis*. There is much confusion over the naming of bougainvillea cultivars. The same plants may be found in nurseries around the world under a variety of names.

The plant that New Zealanders know as *Bougainvillea* Scarlet O'Hara is known as *B. San Diego Red* and Hawaiian Scarlet.

Thai Gold is also known as Roseville's Delight, Mahara Orange, Golden Glory, Golden Dubloon, Tahitian Gold.

Available here:

Bridal Bouquet (Beauty, Cherry Blossom, Thai Queen, White Haze, Limberlost Beauty, Mahara Off White, Eastern Beauty, Eastern White, Tahitian Pink). Bracts double white, tips magenta.

Carmencita (Mahara Double Red, Manila Magic Red, Princess Mahara, Gladalan Red, Klong Fire) Large heads of double red bracts.

Killie Campbell (Green Light, Rose Amber). Bracts change from copper, through red to magenta in recurring flushes. An old favourite.

Pink Champagne (Los Banos Beauty, Mahara Pink, Pagoda Pink, Phillipine Parade, Pink Delight, Tahitian Maid).

New releases have names such as Jellibene, Siggie and Zulu. But everyone keeps buying Scarlet O'Hara! For photos see Don Ellison – Cultivated Plants of the World and for a small specialist book (source of the various cultivar names) Jan Iredell – The Bougainvillea Growers Handbook for New Zealanders.

FRONT COVER

***Bougainvillea* Scarlet O'Hara, trained up the side of the house to the chimney at Ayerlies in Howick, Auckland. Complementary planting around the pool includes agaves, aloes, cycads, palms and various succulents, including the orchid *Epidendrum ibaguense* in permanent flowering mode.**

Opposite top:

***Bougainvillea* Thai Gold - loose upright growth, bracts burnt orange fading to cerise. Double, no flowers, bracts tend to brown and stay on plant. Stunning colour.**

Bottom left:

Close-up of *B. Scarlet O'Hara* bracts and flowers.

Bottom right:

Close-up of *B. glabra* 'Magnifica Trailii'





THE GREAT PRETENDERS

(plants that look subtropical but are hardier than you expect)

Iris japonica

Crested Iris, Orchid Iris

A native of China and Japan, *Iris japonica* is probably the best known of the Evansia group of irises, which have crests instead of beards. It is also known as both the Orchid iris (because of its sprays of many delicate blooms) and the Bamboo iris (because of the bamboo-like slender stems).

Relatively hardy (needs canopy protection), this iris comes from damp and shady, open woodlands where it receives protection from the hot afternoon sun. Spreading by rhizomes, *I. japonica* is a vigorous grower and quickly makes a good ground cover, 45cm or more in height. The rooting system is very shallow so its spread is easily controlled.

In late winter (July in Auckland) and spring (September/October in Taranaki), tall branched flower spikes - up to 80cm - carry many orchid like blooms over a period of approximately six weeks. The flowers are frilled in white to pale blue-lavender.

The photograph opposite was taken in the middle of October, inland from Wanganui. The irises made a wonderful display, interplanted with young cycads, amongst the very large lichened boulders.

Ajuga Catlins Giant

Another groundcover, this time tucked in around a river washed stone and reaching only about 15cm in height. The lush metallic green leaves of this hardy *ajuga* make a thick carpet that smothers almost all weeds. Unlike some of the older *ajugas*, this cultivar has a very compact habit of growth and does not become rangy. The clump in the photo opposite is two years old and the only grooming required has been the removal of dead leaves.

During spring and summer, *Ajuga Catlins Giant* produces 20cm tall mid-blue flower spikes, not striking but pretty at close quarters. The small scale of the leaves and flowers contrasts well with the *alocasias*, *bromeliads* and *gingers* in the background.

Although it can be grown in either full sun or part shade, the leaves are larger with some shade. *A. Catlins Giant* is tough and is resistant to mildew, which can be a problem in our high humidity areas. In this garden (front cover Vol.2.No.1), this clump - and the *Scleranthus biflorus* alongside - are watered regularly by the irrigation system.

BOOK REVIEW

'Patio' – garden design and inspiration

Jamie Durie (Photography by David Matheson)

This book is essentially a very attractive portfolio of gardens designed by Jamie Durie's own Australian-based landscape design business (called Patio). The small design team is introduced, but gets no specific credits in the many gardens featured. These are all contemporary outdoor living rooms closely associated with house or apartment, some no larger than tiny balconies, with the odd Flower Show (including Ellerslie 2001) garden thrown in.

As a coffee table picture book of design ideas, it is attractively laid out works very well, with excellent photography including good close ups. The style is very much modern, clean, simple lines, with strong hard landscape structure. A wide variety of materials and textures is used. Uncluttered spaces, with lots of surface detailing; high walled gardens; raised planters, and lots of water features, built in furniture and structural planting. It was good to see lighting featured widely, although the night photography wasn't good. (I've yet to see a book where they've got that right). The occasional featured phrase didn't always make sense.

For those who want more detail, some designs are broken down with captioned design key and plant lists. Scattered hints, such as 'tricks for expanding smaller spaces' also provide useful design tips for the browser. The occasional plans printed in pale beige are almost impossible to read.

Although the plants featured are generally well used, this is not really a book for plant lovers. Classic contemporary landscaping plants (well-behaved survivors) mostly feature. The plant wish list at the end has Durie's twenty-five favourite plants, although only sixteen are illustrated.

Delving into the words reveals a very personal and enthusiastic account of the author's design processes and relationships with his clients. This is no dry academic book on landscape design, although plenty of good practical theory is wrapped up in sometimes amusing personal anecdote. Read about his Greek friend/client who wanders the garden naked or picture Jamie lying on a master bed to check out the view. There are plenty of pictures to show what a handsome 'fella' he is.

He clearly loves what he does and suffers no false modesty. Expect statements such as - "the garden is a triumph, both aesthetically and in practice" about a favourite project.

Jenny Pullar

Publishers –

Allen & Unwin Ltd. RRP \$49.95



- * Aloe & Agave for landscaping
- * Columnar Cacti
- * Rare Succulents
- * Euphorbia
- * Lithops
- * Pachypodium

COROMANDEL

CACTI

Now available
Aloe alooides,
excelsa,
pluridens

170 Mt Wellington Highway
 Ph (09) 527 4052 Fax (09) 527 4098
 Email corocac@ihug.co.nz

....Hours....

Mon - Fri 9 a.m. to 5 p.m.
 Sat 9 a.m. to 4 p.m.
 Sun 10 a.m. to 4 p.m.

Weekend Gardener



NZ's do-it-yourself gardening magazine

FOR REAL GARDENERS
 THROUGHOUT AUSTRALASIA
 - WEEKEND GARDENER -
 HAVE A GARDEN
 AND A WEEKEND



BOOK FOR SALE

Exotica 2

By Alfred Graf
1200 pages
7600 illustrations
Excellent condition

Price
\$200.00
TELEPHONE
0274-9060-416

**RUSSELL
FRANSHAM'S
SUBTROPICAL
NURSERY & GARDEN**

Clements Road,
Matapouri Bay
Northland
OPEN WEEKENDS
9am - 3pm
Or BY APPOINTMENT

A big selection of
interesting exotic plants
including

Alberta magna

For a catalogue
and
to order
Ph. 09-4343980
Fax: 09-4343179
russ@igrin.co.nz



Come to us

*...for good advice and quality
tropical and desert plants.
Many more sought-after
plants on display.*

**BOUGAINVILLEAS
NEW COLOURS
FOR SPRING PLANTING**

TIPPETTS

THE GARDEN CENTRE

134 Williamson Ave. Grey Lynn.
Phone and Fax: 376 4756. OPEN 7 DAYS!

Send SAE for list to...



NEW ZEALAND

Bulb Specialists

*very limited quantity
- small bulbs of
Worsleya raynerii*

JOY NURSERIES

Jericho Rd,
R.D.2 Pukekohe NZ
Phone (09) 238-9129
www.joyplants.co.nz

Aloe pluridens

Although closely related to the common *Aloe arborescens*, *A. pluridens* is a much more stately plant, being erect, with a straight solid trunk growing to five metres tall in time. It can be branched or unbranched, but most plants throw branches, which grow parallel to the main trunk. If you want a naked trunk simply cut them off as they appear.

The name means 'many teeth' and it has more teeth than most aloes, although not very sharp ones. In early winter, the flowers are like *A. arborescens*, in dense, scarlet racemes on unbranched inflorescences. *A. pluridens* is a toughie, tolerating heavy and/or wet soil as well as wind.

However, it **can** be melted by a few degrees of frost (Avondale, winter of '96, personal experience!). As they get taller they should be out of the colder air, so draping with frostcloth on the colder nights in the first few years might be an option. They are narrow in their spread and the leaves are neither stiff nor vicious, so they suit small gardens or pots better than most aloes. For the larger garden try a grove of several *A. pluridens* together.

If they need to be moved, this can be done very easily - just cut the roots **very** cleanly, dry off and paint the cut. Rougher methods often work, too!

QUESTIONS & ANSWERS

Members are invited to write in about any problems they have such as identification health where to place specific plants as well as queries and comments on articles appearing in the magazine.

Our advisory members will endeavour to supply solutions and answers.

Write, fax or email to:

Q & A - PO Box 91-728, Auckland 1030

Phone/Fax (09) 376-6874

Email - marlowe@subtropicals.co.nz

The illustration opposite shows a young *A. pluridens* flowering for the first time at 1 metre high this May and, in the background, two trunks of older specimens - the right-hand one being over 40 years old (and moved several times).

Text and photo: Martin Walker

Stapelia grandiflora

Several years ago, I purchased a *Stapelia grandiflora* from Coromandel Cacti. Originally from Cape Province in South Africa, it grows in areas with wet summers and dry winters. The label said - 'Upright dark green velvety stems to 30cm high. Star shaped flowers 10cm across covered with soft purple hairs. Flowers smell like a cowshed on a bad day'!

I had to ask myself 'why would I want to buy, let alone grow, a plant that had a flower that stinks?' The flowers are quite amazing because of the size (some clearly exceeding 10cm) and soft hairs, lasting for about three days. They open from late summer to winter in Auckland.

My plant looked stressed in the pot, so last June I planted it in the succulent garden in full sun. As this part of the garden dries out in summer, it is covered with chipped plant stems and bark, which hold some moisture. The stapelia happily survived the winter, with the odd light frost and the heavy rain that we get, growing rapidly.

How these flowers are pollinated seems a mystery. The flies just lay their eggs in them (biological fly control?), but in spring the seed pods split and the seeds, on downy parachutes, blew off in the breeze. Some seed grew unaided in the ground near the parent plant.

The success of this stapelia in the garden makes me wonder which others can be successfully grown this way. *Stapelia variegata*, for one. By growing it in the garden, the perfume was not obvious and passersby can enjoy the flowers. I heard a story about a praying mantis that made his home near one of these plants and was well satisfied with the regular cuisine!

Text and photo: Grant Bayley

**SUBTROPICALS now has its website up and running.
www.subtropicals.co.nz**





GROWING CATTLEYS AND LAELIAS AS EPIPHYTES IN THE GARDEN

Jim Gilchrist

Most of us have seen Crucifix orchids (*Epidendrum ibaguense*) growing in gardens around the warmer parts of the country - usually as terrestrials, occasionally as epiphytes. These belong to the family Epidendreae, which also includes brassavolas, cattleyas, encyclias, laelias, leptotes, sophronitis and many others. The purpose of this article is to talk about cattleyas and laelias and, hopefully dispel a few myths.

The first myth is that cattleyas need to be grown in warm areas. That is true of some of the unifoliate species. However, most of the bifoliate cattleyas and laelias come from high altitude areas of South America where they grow in cool conditions.

The second myth is that they will not tolerate frosts. This is true if the plant is wet, particularly at the roots. In many areas where they are found in South America, frosts occur on the open ground in the near vicinity of where the plants are to be found. The plants are not silly! They find places where they are out of the frost zone, up trees or on cliff faces. I have often wondered if the trees they grow on are actually warmer than the ambient temperature around them. On rocks or cliff faces, the stone absorbs heat from the sun during the day, then slowly re-radiates the heat during the night, keeping the plants warm.

Opposite top left:

***Cattleya intermedia* - with a backdrop of tropical looking macropiper leaves.**

Top right:

***Cattleya aurantiacum* - a very different colour from most cattleyas - great for those who don't like pink.**

Photographed at Pottering About at Otakiri, Whakatane, in late spring.

Bottom:

***Laelia pumila* - this plant is in a basket, hanging under an evergreen native tree. It has grown so vigorously that now only the top of the hanger can be seen and it is virtually growing epiphytically. As well as the flowers and seedpods, many new buds can be seen that should carry the flowering period well into winter.**

Photographed at L & R Orchids at Tuakau in late autumn (1st May).

I was originally inspired to try my hand at growing epiphytically by a series of books on orchids by J N Rentoul, of Australia. Unfortunately now out of print, the books can, however, often be picked up second-hand. In spring 1988, at about the time I purchased the first of these books, I bought a tray of cattleya hybrid seedlings from Andy Easton. Some of these I grew on ponga slabs and some in pots, which I kept in my fernery at Birkdale. These plants grew like weeds that summer and into autumn. However, during winter, I lost most of the plants that were in pots while the plants on the ponga survived.

On reflection, I think I was lucky – my section was on the side of a steep street and faced west. It was also shaded by my neighbour above me, who had large trees on his property. *Sarcochilus*, *prominaeas* and *odontoglossums* grew really well. On a large red she-oak growing at the back of my place, I planted a number of orchids and they thrived. As a result, I planted two more she-oaks (*Casuarina*), but the green variety this time. They grew rapidly, as did the orchids I attached. When the property was sold, the new owners cut down the trees and used them for firewood – I hate to think what happened to the orchids.

Where I live now, at Otakiri on the eastern Bay of Plenty plains, the following orchids growing outside have survived more than one winter:

Bifrenaria harrisoniae

Cattleyas – *aurantiaca*, *forbesii*, *harrisoniana*, *intermedia*, *loddigesii*

Dendrobiums - *kingianum*, *speciosum* and their hybrids and cultivars

Epidendrum nocturnum

Laelias - *anceps*, *pumila*.

These plants are growing on feijoas and juvenile macrocarpa. I have planted green she-oaks, puriri and Brazilian peppers with the sole purpose of growing orchids and bromeliads on them as epiphytes.

The cattleya group of orchids need to be grown as succulents, as they need to dry out quickly after watering. In their natural environment, they usually enjoy dry winters and wet summers. Unfortunately, our conditions are the opposite of this, but I have found that they still survive because, when it rains, it generally does not get too cold. In the summer, we give them the occasional squirt when we water the garden.

The opinions expressed in letters or articles in this magazine are the authors' own views and do not necessarily express the policy of the Subtropicals Society.

All articles, illustrations and photographs in this magazine are copyright and may not be reproduced (in whole or in part) in any other form or medium without the express written consent of the editor.

In the past, I have grown orchids on ponga mounts, in wooden slat baskets, wire baskets and plastic pots. The plants in the plastic pots have never grown as well as those in the wire baskets or on the mounts. I believe there are a number of reasons for this:

(1) - It takes a long time for the plants to dry out and it is very easy to damage the root ball.

(2) - There is not nearly enough air movement over the roots.

(3) - There is usually too much or not enough fertiliser. Growing on a tree, the plants are fertilised by dust and pollen washing down over the roots each time it rains.

I have recently been able to purchase, from an importer, traditional Asian orchid pots and I am repotting all my orchids into them. Anyone who has visited the orchid gardens in Singapore will have seen them in use. I have found that, usually within a week or two of repotting cattleya-type orchids into these pots, an improvement in plant health can be detected. The existing roots fatten up and become white with a new coat of velamen. New roots start to appear from the rhizomes with long green growing tips. New growth appears and, within a further short space of time, the new growths are larger and fatter than any previous growth.

Another advantage of growing epiphytically is that there is no weed problem. If a stray fern becomes established in a plastic pot planted with an orchid, the fern will kill the orchid. On a mount, the fern won't usually survive, but in a clay orchid pot or wooden slat basket they both seem to enhance one another.

Recently, on television, there was a series of English gardening programmes called 'Beautiful Gardens'. Featured in one of these was a garden in the south of England, where the original creators of the garden had built large stone walls and then planted bananas, cordylines, tree ferns and palms on the south facing side.

SNIPPET

From **Barbara Parris**, just returned from a short trip to the U.K. 'Subtropicals are very popular in southern English gardens. Usually this means cordylines and phormiums, the latter being used with much more imagination in mixed shrubaceous borders and pebbly, driftwoody seaside gardens than here.

Christopher Lloyd at Great Dixter in Sussex, managed to overwinter bananas outside, well wrapped up in hay bales. This is definitely something to be considered in New Zealand.

Some people in England and Scotland wrap up their tree ferns and leave them outside all winter too, something else to be tried in the "Deep South" here'.

TRANSPLANTING TREE FERNS

Robin Booth

I have been asked what is the best way to move tree ferns to new locations and when is the best time to do this?

Most tree ferns can be shifted safely over the winter months, when they are dormant, with the minimum amount of trouble. Select your plant, preferably from a more exposed area, as usually the plants are better hardened off there. Cut all the leaves off, then dig down into the soil about a spade's depth, around and about 15cm out from the trunk. A big root ball is not needed.

Pull the plant out and replant in its new situation, making sure it is quite a bit deeper into the soil than it was initially. This is because, at the base of the trunk above soil level, many basal roots form, which will quickly take hold and support the plant again. Quite tall trunked tree ferns can be shifted in this way. While the plant is re-establishing, water if dry weather prevails. As spring comes, new leaves should form and the plant should settle down.

If you try to shift plants with their leaves on, you must be very careful that the leaves are never allowed to dry out. It can be done but is more difficult, as is shifting plants in the warmer times of the year. *Cyathea medullaris* (Mamaku or Black Tree Fern) is the best for more exposed sites - the others require more sheltered positions to do well.

Dicksonia antarctica, *D. fibrosa* and *D. squarrosa* are the only tree ferns I know of where the trunks can be sawn off at just about ground level and replanted. This is because the trunk has a lot of adventitious roots up its length from which it can re-establish. *Dicksonia squarrosa* is the only one to have the ability to shoot away from the trunk. This happens in particular when the fresh stems are laid on the soil to stabilise banks, etc. Mamaku do not grow away from bare trunk sections.

AUCKLAND REGIONAL BOTANIC GARDENS GARDENING DISCOVERY PROGRAMME:

SUNDAY, July 6th 11am to 1pm

Succulent garden – learn how to create a stunning display of succulents and how to propagate your own.

SUNDAY, August 3rd 11am to 1pm

Native garden – every garden can contain native plants. Learn to incorporate the right specimen trees and hedging, and to increase your native bird life.

These talks and walks cost \$8.00 per person, no bookings are required and go ahead rain or shine. They are held in the covered courtyard. Sale plants are available. Information – (09) 267-1457

THE COOL SUBTROPICS – part four

Nick Miller

Here are details on some other plant groups which we have found to grow satisfactorily at 300 metres elevation in our garden at Lake Rotoiti.

Gingers and others

The Kahili ginger (*Hedychium gardnerianum*) that is such a problem in the North was present in this district when we moved here, but only as occasional clumps. We thought it was unlikely to be a problem. Now it is proving to be quite invasive and Environment Bay of Plenty have started an eradication campaign.

However, the orange-red flowered *Hedychium greenii* has proved well behaved and no seedlings of it have appeared. It also has attractive dark foliage. *Heliconia subulata* grows well but slowly. It has not yet flowered, but this may be due to excessive shading. *Alpinia calcarata* has a similar track record.

Gardenia

A single-flowered form of *Gardenia jasminoides*, which we acquired at Te Puna Cottage Gardens, came through the winter unscathed and flowered well this summer. It is much more attractive than the single form ('Fragrant Star') that has been widely available for the last year or two. The plant of the latter, which I have seen in garden centres, seems to age very ungracefully.

Gardenia thunbergii has been with us for fifteen years or so. We have two plants, one in full sun and one in light afternoon shade. The plant that receives full sun has never looked happy. The other one has grown slowly, but I was despairing of ever seeing flowers on it. Then, at the end of March, I was thrilled to see a single flower. Hopefully, from now on it will stand to its duty!

Dimorphanthera

The dimorphantheras are unusual ericaceous climbing plants from the highlands of Papua New Guinea. *D. denticulifera* (from Os Blumhardt) was planted about fifteen years ago and scrambles through a trellis and adjacent shrubs, producing its attractive little soft pink bells each autumn. A similar, unnamed species from Mark Jury Nurseries (soon to close for retail sales, alas) has subtly different foliage, similar flowers, but very handsome bright red new growths.

D. keyserii (source unknown) has yet to flower and probably needs more light than it is getting. *D. amoena* (Te Puna Cottage Gardens) is still growing in a pot in our shadehouse. It has coppery new growths and a pendulous habit. It may possibly be best grown in a hanging basket or as an epiphyte.

This genus seems little known but is worthy of much more attention.

Vireya

These marvellous plants are rightly popular these days. *Rh. tuba* has grown and flowered well here for years. It has long, curved pure white tubes, heavily scented and obviously designed to be pollinated by birds. Under our conditions vireyas seem to be better-grown in full sun, or nearly so. They do not seem to appreciate being overgrown by other plants. I will not give a list of varieties, but will comment that those that flower in winter often produce rather 'washed-out' flower colouring, possibly due to cool temperatures.

Justicia

There was a good article on these plants in *Subtropicals* (Vol.1.No.1). Various colour forms of *J. carnea*, in different shades of pink, do well provided they are given sufficient light. *J.* 'White Lightning' does well also and is very attractive, flowering over quite a long period.

The yellow *J. aurea* is planted in a hot sunny spot by the house. It survives the winter, although it dies back somewhat, then grows away well during the summer months and flowers freely. The one problem is that it flowers in very late autumn, just as our temperatures are plummeting, and the flower colour becomes rather washed out as a result - or is this due to excessive sun?

Fuchsia

Most of the commonly grown hybrids do not do well for us, being very prone to mites and rust. However, the types that we regard as 'subtropical' are very useful. *Fuchsia boliviana* (photo on page 35) grows into a tall, rambling, big-leaved shrub, with large hanging panicles of long deep red flowers for most of the year. *F. boliviana alba* is misnamed, as it has pink and white flowers. A true pure white form would be a wonderful thing.

Some of the *F. triphylla* hybrids make excellent garden plants in warmer areas. *F.* 'Gartenmeister Bonstedt' is well known, but I prefer *F.* 'Mary' with deep red flowers. It flowers all winter for us. So does *F. splendens*, which has smaller red and green flowers and is very popular with the white-eyes. *F. sessiliflora* has slender orange-pink and green flowers, again almost everblooming. *F. paniculata* has soft orange flowers, also for a long period. We have one or two others whose names we have managed to lose. I recommend that you visit a fuchsia specialist and look out for plants with foliage that look different from the run-of-the-mill hybrids. Most of them respond well to a good prune every year or two, but you will have to choose a time that sacrifices the minimum number of flowers.

Palms

Elizabeth and I both grew up in an Auckland where palms meant *Phoenix canariensis*. I have seen this palm described as "the ugliest vegetable known to man" and I have some sympathy with this view. Certainly we both had an aversion to palms. Then a few years ago we

visited Queensland and were totally converted during a tour of the Townsville Palmetum. What an eye-opener!

Shortly after this visit, we planted some seedlings of *Archontophoenix cunninghamii* (Bangalow palm) at the edge of our bush-clad hillside, near the lake. They grow slowly but steadily, in spite of heavy root competition. I understand from Ewen Cameron, the botanist at the Auckland War Memorial Museum, that this species has an alarming ability to seed itself around in warmer areas, aided by the birds which feed on its berries (see photo on page 27). So perhaps some caution should be exercised in selecting it. *Archontophoenix purpurea*, purchased as A. 'Mt. Lewis', is in our main subtropical area. Again, slow-growing but healthy and handsome. *Dypsis baronii* has yet to find a permanent home, but a potted clump has come through two winters without turning a hair. *Chamaedorea seifrizii* is also a slow grower, but seems happy enough, as does *Linospadix monostachya*, the Walking stick palm.

We are still feeling our way with palms and there are only so many that will fit into a smallish garden. At least the prices have come down substantially in recent years!

Bananas

Some years ago we put in a plant of 'Misi Luki', which apparently comes from higher altitudes in Samoa. It formed a handsome clump, rather more rampant than we would have liked. A couple of years ago, to my amazement, it produced fruit – small but very tasty. I don't know whether it was the first banana to fruit outside in the Rotorua District, but I wouldn't be surprised. At present it is shading our greenhouse too much, so may be in for a change in lifestyle.

Citrus

These are a must-have for any subtropical garden – good foliage, fragrant flowers, tasty fruit and you can grow epiphytes on them. The old standby Meyer lemon fruits freely here, as does the Lemonade – a provider of very refreshing drinks through much of the year. A shortage of space limited our citrus plantings, however, the advent of the small growing 'Flying Dragon' rootstock has lead us to try some more.

'Sanguinelli' blood oranges produce good fruit with reddish pulp in winter. I suspect they colour more in hotter climates. The 'Kusaie' lime fruits very freely for the size of the tree and the limes it produces seem as good as any other – very useful for flavouring drinks and for culinary purposes. They have ripened in winter and summer. Another local gardener informs me that the 'Mexican' lime also does well in this area.

The pink fleshed pummelo or shaddock, 'Chandler', is growing in a pot on our deck. It has produced a few fruit, but they were barely worth eating – rather dry and sour. I suspect more summer heat is needed. However, this variety has very large glossy leaves and particularly large flowers with a fragrance that carries well. It is worth growing for its ornamental value alone. Any edible fruit would be a bonus. Now that we

have replaced some 'economy' potting mix with a decent brew, it is growing much better – perhaps the fruit will also improve? There are a number of interesting new citrus varieties available on 'Flying Dragon' stock – well worth experimenting with. I am casting around for places to try some more.

In this series of articles I have tried to describe a few plants that will give the subtropical look to gardens further south or away from the coast. The roses here have mostly gone, but we still grow a few of the old 'tea' (or 'tea scented') roses that, somehow, seem to blend with warm climate plants better than most. They have reddish-copper foliage, warm flower tones and fruity perfumes, and are believed to be derived from the warm-climate species *Rosa chinensis* and *R. gigantea*, which originate from southern China and Burma. 'Archduc Joseph' (copper pink), 'Francois Dubreuil' (deep velvet red) and 'Duchesse de Brabant' (pale blush pink, and also with a white sport) are particular favourites. If you must have roses these are well worth the space. For a climber, I recommend 'Slater's Crimson China', which will flower all year and is small-growing with few thorns.

There are many other genera that could be mentioned, such as *Abutilon* (invaluable and much favoured by tuis and bellbirds) and *Bougainvillea* ('Magnifica Traillii' and 'Scarlett O'Hara' - photos page 2 - are the ones to try). *Plumbago capensis* does well in a well-drained sunny spot, flowering all summer and autumn. The darker blue form, 'Royal Cape', seems to be much shyer flowering and has a considerably shorter flowering season for us, not starting operations until well on in April. Perhaps with age it might improve. And might I finally put in a plea for *Neomarica coerulea*, a perennial with wonderful sky blue flowers rather like a tigridia. This flowers for weeks through the hot weather, every second day, and all the plants of it in our garden are synchronised in their flowering days. The foliage is good too. Should be in every garden!

Perhaps the most significant factor when aiming for the cool subtropics is microclimate. This was brought home to me a few days ago (late April). I have never thought of Hamilton as a warm climate city, as it is subject to frosts and fogs in winter. However, after attending a seminar at the University, I was walking along Hillcrest Road (which runs along a ridge top) when my attention was caught by a golden yellow Hawaiian hibiscus (possibly 'Golden Belle') and a soft yellow bougainvillea, both well established and flowering magnificently. A northern exposure by the house and good air drainage had made all the difference.

Photo opposite:

An *Archontophoenix cunninghamiana* in full seeding mode – new seed head and the two previous years fruit. Attractive to birds, one can understand why some fears are being raised about its invasive potential.





TWO EVERGREEN SUBTROPICAL BULBS

Hippeastrum aulicum

One of the few evergreen hippeastrums (Amaryllidaceae), this plant was photographed on the fourth of July last year with one flower bud just opening and with many buds to follow. Clumps of *H. aulicum* form part of the understorey plantings under the rimus at Tikorangi, Mark and Abby Jury's garden at Waitara North, Taranaki. Unfortunately, the Mark Jury Nursery is closing its mail order and retail nursery in October to become wholesale only.

H. aulicum is a native of Brazil and Paraguay where summer is the wet season and the winters are dry. Under the rimus, even with the lower limbs removed, conditions are very dry and shady. There is also considerable root competition from the trees, but despite this, *H. aulicum* flourishes. In addition to this, it has a winter into spring flowering period with yellow centred, brilliant red flowers on tall stems, complemented by dark green, strappy leaves. All these virtues make for a very desirable garden plant.

Another evergreen hippeastrum is the spring flowering *H. papilio*. See **SUBTROPICALS** volume one, number four.

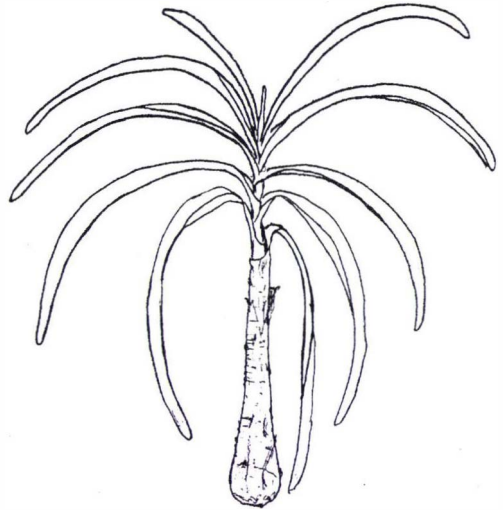
THE WORSLEYA

Robin Booth

There was a great deal of excitement in the gardens here a few weeks ago. A large bulb, which I have had for over fourteen years now, decided that it was time to flower for the second time! It is called *Worsleya rayneri* (Blue Amaryllis, Empress of Brazil) and is named after Arthington Worsley (1861-1943), a mining engineer who travelled extensively in South America and became a specialist in bulbous plants on his retirement to Middlesex.

According to Terry Hatch (Joy Plants), this bulb occurs naturally in only one locality (not well protected) in the Organ Mountains of Brazil. Close to a waterfall, it clings in full sun to the ledges and crevices on the rock face. Worsley wrote in 1929 about these bulbs 'growing on ledges with little foothold but the heavy storms often fling hundreds of great bulbs down the precipices. But they obtain some support from a species of twining philodendron, which intertwines itself among the bulbs and forms a kind of rope.

The bulb is large and the false stem can be up to a metre or more long, with evergreen, sickle-shaped, pendent leaves which, in a mature plant, can also be up to a metre long. The interesting bulb, though, is surpassed by the large amaryllis-like flowers. They are not blue but lavender to heliotrope, paling towards their base to almost white and bespeckled with mauve spots, the colour varying between individuals. Our plant has eight flowers in the lighter range, but on a mature plant up to fourteen flowers can unfold.



It is best if flowers are cross-pollinated to get good seed set, but as I could get no fresh pollen, I had to use some that I had saved in the deep freeze from the first flowering two years ago. Three of the seven pods have set so, hopefully, in another twelve to thirteen years time, I will have some more plants coming into flower!!!!!!

TO JOIN SUBTROPICALS

**send your cheque for NZ\$30.00 for New Zealand membership
and via airmail overseas
NZ\$38.00 - Australia
all other countries
NZ\$40.00 (approx. US\$24.00)**

**to SUBTROPICALS
PO Box 91-728, Auckland 1030, New Zealand**

**Each member on joining receives all the previous issues of the
current year.**

Back copies of volume 1 (with index) are available for NZ30.00.

Treat your garden to something special

Ceroxylon interruptum

High altitude Wax Palm from Venezuela



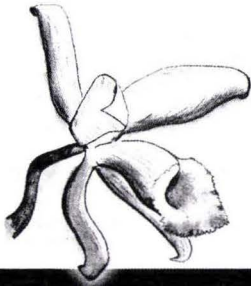
Caryota gigas

From Thailand mountains the most beautiful of the Fishtails

Archontophoenix purpurea

Violet Crownshaft Bangalow

These palms and other uncommon plants from Opanuku Subtropicals are available from 316 Henderson Valley Road, Henderson, Auckland at the rear of Muddy Thumbs Garden Centre, open 7 days



Cattleyas

**aurantiacum
forbesii
intermedia**

Laelias

**anceps
pumila**

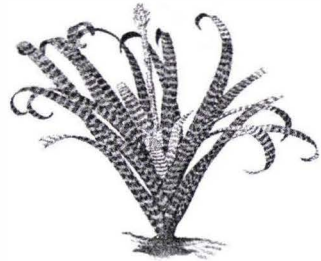
**Jim & Sharon
Gilchrist**

pottering about

**Military Road R D 7
Whakatane**

**Phone/fax (07)322-8201
potteringabout@xtra.co.nz**

**Aechmea weilbachii
Canistropsis billbergioides
Wittrockia cyathiformis**



GREEN'S

**BROMELIAD NURSERY AND
SUBTROPICAL GARDENS**

**P.D.C. Maungakaramea,
Whangarei 0250**

Ph/Fax 09-432-3759

Email: kjgreen@xtra.co.nz

Mail Order Catalogue \$3

**Visitors and tour groups welcome
by appointment**

Crested Irises

Iris japonica
wattii

Stockists of
interesting plants
*rare fruit *palms
*bromeliads and more
to enhance your
subtropical garden.

NESTLEBRAE EXOTICS

www.helensville.co.nz/nestlebrae.htm

(tours by appointment)

219 South Head Rd,
R.D.1
Helensville 1250
Ph (09) 420-7312

WHAREPUKE
www.sub-tropicals.co.nz

Worsleya raynerii



*Sub-tropical
Garden &
Nursery*

190 Kerikeri Rd. Kerikeri
Ph 09-407-8933

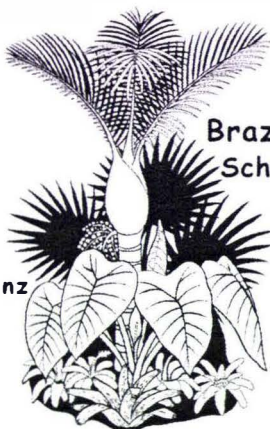
LANDSENDT

108 Parker Road
Oratia, Auckland

Phone (09) 818 6914
Fax (09) 818 6391

Email endt@ihug.co.nz
www.landsendtexotics.co.nz

Open Monday - Saturday
9am - 5 pm
Sundays by appointment



Brazilian Fern Tree
Schizolobium parahybum

Check out our web site

WINTER PHOTO COMPETITION

We need as many photos as possible of plants that give colour to the winter garden. To enter, send a photograph(s) – either vertical or horizontal or both to –
The Editor, PO Box 91-728, Auckland 1030.

Please make sure that your name and address are on the back of the photo/s (use a marking pen). Mark return if appropriate. Some information about the plant(s) or garden on a separate sheet of paper would be most welcome.

ENTRIES CLOSE ON THE 31ST July 2003.

THE PRIZE

A Touchwood Books voucher for \$50.00.

This competition is sponsored by

TOUCHWOOD BOOKS

Specialists in gardening and horticultural books

All our 20,000, both new and second hand are listed on the Internet at <http://www.touchwoodbooks.co.nz>

We have books on begonias, bromeliads, cacti and succulents, cycads, epiphyllums, ferns, heliconias, hoyas, orchids, palms (including Keith Boyer's "Palms and Cycads Beyond the Tropics"), Mediterranean gardening and tropical plants – all available by mail order.

PO BOX 610, Hastings

We are only as far away as your telephone

Phone (06) 874-2872

Fax (06) 874-2701

Email – mail@touchwoodbooks.co.nz

AUTUMN COMPETITION

...and the winner is Val McMillan of Helensville with

A FORGOTTEN SUBTROPICAL GENUS

Fuchsia is a truly subtropical genus, with 95 per cent of its approximately one hundred species native to Central and South America. The other 5 per cent are spread between the West Indies, Tahiti and New Zealand. A widely dispersed genus, it extends from Mexico south for six thousand miles. The different species show an amazing range of form and growth habit.

Only a very few of the species are generally grown in this country, where the modern hybrids are the popular choice. I have found the following to be worth a place in the subtropical garden.

Fuchsia arborescens, from Mexico and Panama, grows into a small tree with attractive clusters of pink to magenta coloured flowers that are food sources for birds. This fuchsia can tolerate full sun.

Fuchsia corymbiflora, from Ecuador, is a rather loose shrub that can be trained to a single stem. It has long, hanging clusters of bright red flowers. There is also a white form available.

Fuchsia denticulata, from Peru and Bolivia, is said to grow to five metres, but I have never achieved more than half this height. The leaf is very distinctive – almost fleshy, light green underneath and an unusual green above. The flower has a long red tube with green tipped sepals and a red corolla. A half-day's sun seems to suit it best.

Fuchsia fulgens has scarlet flowers grouped at the end of the branches which have rather furry leaves. This shrub grows to about 1.2m and will take full sun. A native of Mexico, I have sometimes seen it in garden centres.

To flower well, all the above species require plenty of organic material and free draining soil, with moisture during the growing season and good light.

Fuchsias all produce edible berries, which can be left for the birds or made into jam, toppings or wine. The variety of foliage and flower colour and type makes them worth a place in our gardens.

Top left -

Fuchsia arborescens

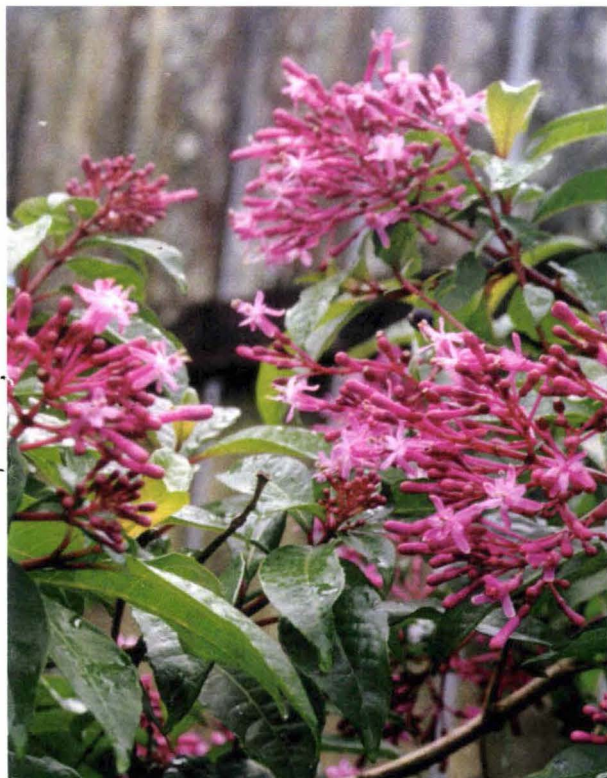
Top right:

Fuchsia denticulata

Bottom:

Fuchsia boliviana

Photos: Grant Bayley





***Chamaedorea microspadix* –**

A PALM FOR SMALL PLACES

Kevin Johnston

Palms, unlike most trees, are predictable in their dimensional growth. They can therefore be used to effect a suited purpose. Of the palms we cultivate, most are solitaire (single trunk) but some develop multiple growing stems to give, in effect, a clump. *Chamaerops humilis*, *Phoenix reclinata*, *Laccospadix australasica*, *Rhapis excelsa* and some chamaedoreas are a few examples of clumping palms and some are capable of reaching quite large proportions.

One that is small and very manageable is *Chamaedorea microspadix*. This palm is not new to cultivation here in New Zealand, but does not seem to have been widely promoted, possibly having been overshadowed by the sensation made over fast-growing specimen palms such as Queen, Bangalow and Washingtonia, to name a few. Also *C. microspadix* is not useful as a specimen palm for the middle of the garden in the hot glaring summer sun, as here it will not reach its true potential. It actually will take some sun, but is best used where it might get some relief from the sun for part of the day or light shade for all of the day.

C. microspadix originates from Mexico and typically grows to 2-3 metres high and 1 metre across. It is tolerant of almost any soil type but is not a bog plant. It will take moderate wind and 4° of frost is about the limit of its cold tolerance.

Both snails and mealybugs like to dine on the leaves, so watch for these. Growth is quite fast - it quickly reaches its mature height and fills out as new shoots develop. It also makes a good indoor palm having a low light requirement and a slender habit.

The most delightful aspect of this palm is the bunches of red berries that develop and show from May and will hold through to Christmas. Because they are dioecious, you need plants of both sexes to produce this display of seed.

Chamaedorea microspadix is not yet widely available. See Plant Sources on page 40 of this issue.

Photos:

Top right – A group of *Chamaedorea microspadix* planted to screen a garden shed in Auckland. The small dark green palms at the base are *Chamaedorea radicalis*.

Photo:Kevin Johnston

Top left: *Aechmea weilbachii*

Centre left: *Wittrockia cyathiformis* (syn. *Canistrum cyathiforme*)

Bottom: *Canistropsis billbergioides* (syn. *Nidularium billbergioides*)

SOME BROMELIADS FOR WINTER COLOUR

Marjorie Lowe

There are a number of bromeliads whose flowering season varies from late autumn through winter and from late winter through spring. It is often said that bromeliads flower when they are ready, regardless of the season, but I have found that there are species with very defined flowering periods.

The first of these, *Aechmea weilbachii*, flowers in late winter and holds its colour right through spring. The particular form I have, possibly a cultivar, has plain apple green leaves with the flower spike (about 60cm high) held well above the leaves. Bright red bracts enclose the flowering stems and the upper, boat-like bracts containing the flowers are also bright red. The sepals are rich purple with lilac flowers, which soon turn to black. The form of these flowering spikes is very strong – ikebana hobbyists find them irresistible in arrangements, with the added benefit of being very long lasting.

Thought to come from the woods of southern Brazil, its exact location appears to be unknown. From experience, I have found that it seems to do best in a cool (no frost) situation in moist partial shade. Some growers find it shy to flower. Mine is now in a permanent position where it flowered last winter. Will it repeat this coming winter?

The second bromeliad belongs to the late autumn/all winter period. *Canistropsis* (syn. *Nidularium*) *billbergioides* – see Vol.1.No.2 – is such a great plant, forming good-sized clumps fairly quickly. The medium sized stolons ensure that the clumps are graceful and open in appearance. The flowering stems appear in late autumn and quickly colour up. In early winter, the brilliantly white flowers appear, contrasting well with the coloured bracts. These stay in colour over spring, giving at least a six-month display. Because they are so dependable and colourful, much hybridising has produced a range of colours. It is best grown as a terrestrial in moist shade.

The last bromeliad, *Wittrockia cyathiformis* (syn. *Canistrum cyathiforme*) has such a long period in colour, nine months, that it almost always brightens the winter scene. The plant illustrated had already been in colour for six months when the photo was taken (2nd August).

The very stiff and leathery bracts are usually a bright lolly pink with bright yellow long-lasting stamens. The leaves are moderately stiff and edged with soft teeth. This is an easy to grow, tough plant that does best in shady conditions but will stand morning sun.

The original habitat is southern Brazil where it grows as an epiphyte or terrestrial in forests at about 1300m.

● These three plants are only a tiny sample of the variety of bromeliad species that brighten the winter garden.

QUESTIONS & ANSWERS

Q...I have three palms (single stemmed chamaedoreas all the same species) planted together under a large pittosporum. Under this tree there is no sun at all, but there is filtered light. They are protected from the northerly and southerly windblasts that we get regularly. Drainage is good.

They have only been planted together for a year. Before that, they were separated in different parts of the garden. They are various heights – 90cm, 1.2m and 1.5m (to the top of the crownshaft). The bigger two flowered last year when they were in different positions, but no fruit ever set (it just all fell off). The biggest one has fruit again this year but it is falling off fast.

How can I get the fruit to ripen? Is this an environmental problem, a lack of fertiliser or perhaps a monoecious/dioecious thing coming into play (in which case the fruit shouldn't have formed in the first place)?

Kelly Omeara

A...The last is the cause of the fruit not ripening. Chamaedoreas are dioecious, requiring male and female plants to ensure pollination. The two that have fruited are female, but until it is old enough to flower, you will not know whether the third palm is male or female. If it turns out to be another female you will have to add a male to the group.

The females do produce small fruit but, as you have discovered, it soon drops. Also, to achieve good pollination when a male is present, the plants need to be close together.

KJ

Q...I have acquired some *Russelia equisetiformis* (Coral Bush), a shrub which features in Made Wijaya's book 'Tropical Garden Design'. There is a nice specimen on the right going down Judges Bay Road in Parnell.

I would welcome some help as to where to plant etc. I've been chasing this for some time and now holding some plants and want to get it right. The local specimen is in a sunny, well-drained position.

Peter Brady

A...Also called Coral Fountain and Coral Plant, *Russelia equisetiformis* comes from Mexico where it usually has wet summers and dry winters. Consequently, in our climate which is the reverse, it should have well drained, fertile soil and be given summer water. It is frost tender (but reputed to stand 0°C) and does best in full sun in a sheltered location.

This species is pendulous with almost leafless stems and is at its best when spilling down a wall. The bright red flowers are colourful during spring and summer – longer if in a warm spot.

EM

PLANT SOURCES for this issue

Aechmea weilbachii – Greens Bromeliads

Ajuga Catlins Giant – perennial specialist

Alberta magna – Russell Fransham, Wharepuke sub-tropicals

Aloe pluridens – Coromandel Cacti

Archontophoenix cunninghamiana – generally available

Asplenium oblongifolium – native plant specialists

Bougainvillea cultivars – Tippett's Nursery (wide new range in spring). If you are prepared to wait, new named cultivars can be ordered.

Canistropsis billbergioides – Greens Bromeliads

Cattleya aurantiacum – Pottering About

Cattleya intermedia – Pottering about

Chamaedorea microspadix – is not yet widely available but is obtainable as a grow-on line from Lyndale Nurseries. For landscape grade plants you could contact Kevin Johnston, (09) 473-0156 or (025) 901-978. Some other palm growers may be able to help.

Fuchsia arborescens – Nestlebrae Exotics

Fuchsia boliviana – Nestlebrae Exotics, Wharepuke

Fuchsia denticulata – Nestlebrae Exotics

- Species fuchsia do turn up occasionally in the nurseries so keep an eye out for them.

Hippeastrum aulicum – Joy Plants has sold out at the moment but should have stock later on. This is a plant well worth hunting for and waiting for.

Iris japonica (and hybrids) – Nestlebrae Exotics, who also have other *evansia* species and hybrids.

Laelia anceps – Pottering About

Laelia pumila – Pottering About

Neomarica caerulea – Wharepuke Sub-tropicals

Stapelia grandiflora – this is not an easy one. Coromandel Cacti are out of stock and you will have to hunt for it. Probably Cactus and Succulent Society members would be your best bet.

Wittrockia cyathiformis – Greens Bromeliads

Worsleya rayneri – Joy Plants, Wharepuke Sub-tropicals

● Don't forget that there will be a wide range of plants coming to the Display & Sale Day on the 29th. Bromeliads will be there in quantity and we hope to have a good variety of orchids, many in flower.

You will also be able to meet specialist growers, most of whom can only bring a small sample of their wares. It is a chance to learn about plants that are rarely seen as yet but will eventually be available for sale. A plant not easily found or acquired seems somehow to have an added aura of mystery to its character.

STAKING OF PLANTS – some thoughts

Robin Booth

Something I have been saddened to see during all the windy weather is the number of trees blown over that have been staked. The gusts have been strong enough to break the stake and although the tree has been in the ground for a couple of years, it is not able to hold itself up.

The question of staking is an interesting one. Firstly, why are you staking? If it is to hold up a plant that doesn't normally grow upright, such as a standard wisteria, then the plant has to be staked in such a way that it is always dependent on the stake to hold it up i.e. the stake must be solid and unable to be broken.

If the plant is being staked to stabilise it while it is re-establishing, then much more care has to be taken. If a solid tie to the stake is made and the trunk is not allowed to move, then a message is given to the roots that they do not have to get any stronger to hold the trunk steady. If after a time the stake breaks, the plant falls over because the trunk hasn't strengthened. Often the top will be quite bushy, providing a lot of resistance to the wind, making the problem greater. To overcome this, plants **must** be allowed quite a bit of movement of the trunk. The movement causes a message to be sent to the lower trunk and root area to get stronger and withstand this movement.

Ties should be loose – they are only needed to stop the top from going too far. The optimum would be a whippy stake, which became stiffer the further it bent over (but I don't know of any such thing!) How you tie them is over to you, as long as the top can move freely. One article I read, suggested that all newly planted material be shaken every time you go past, to help make them more solid. I wonder if it is better **not** to stake but shorten the top back to reduce windage. I know many people would prefer a taller plant but the shortening would only have to be done for the first year and a year doesn't make much difference in the life of a tree (and at least you have a strong one).

Further thoughts:

Some people think that cutting out the top of the tree will spoil the shape. This is true in the short term but, which is better, a perfectly shaped tree lying on its side or a shortened tree, which will grow into a good, stable tree in a year or two? I admit that a topped tree has to be checked to make sure only one new central leader is growing. If more than one is present, prune out all except the strongest. For the first year or two there will be a kink in the trunk but, as the trunk thickens, it will appear less and less and finally not be noticeable.

Virgilians and some banksias and proteas are prone to wind resistant tops. I find that it pays to shorten back the tops at planting, let them grow then cut off about one third and then keep pruning them until they have a strong, sturdy trunk then leave them to grow.

BACK COVER STORY

Alberta magna

Natal Flame Bush

This beautiful, small tree from South Africa (Natal, Zululand and Pondoland) is usually treated as a shrub because it grows so slowly. For small gardens this can be a boon as five metres is its usual maximum height.

This is not its only merit. The deep green leaves enhance the erect clusters of bright red flowers, which are at the ends of the branches. In Australia and New Zealand the flowers arrive in late autumn and last through winter. They are followed by bunches of scarlet bracts that are even brighter in colour, taking the colourful display through to (usually) summer.

Frost tender (Graf and Botanica list it as tropical), *Alberta magna* does well in full sun with moist, well-drained and fertile soil. It must not dry out in summer and, although it enjoys the humidity on the coast, it needs protection from salt winds.

The photograph on the back cover was taken in late autumn (3rd May) by the duckpond at the Domain in Auckland. This tree has been left to grow naturally and should certainly not dry out in summer with all that water close at hand.

Jonathon Voysey

Photos: Grant Bayley

Asplenium oblongifolium

Shining Spleenwort, Huruhuruwhenua

Asplenium oblongifolium is another New Zealand native fern that deserves to be widely grown. It has handsome, very glossy once divided arching dark green fronds from a stout scaly short-creeping rhizome and will in time grow to be about 1 metre high and 1 metre wide. In the wild, it grows in well-drained situations in coastal to lower montane areas, in both open and shaded conditions, often as an epiphyte in crowns of trees. In the extremely dry conditions of last summer, the fronds of wild plants in my bush patch died off, but were replaced after the autumn rains.

In cultivation, *A. oblongifolium* has the virtue of being able to withstand dry and shady conditions such as under the eaves of houses and amongst tree roots. It will also adapt to cultivation in pots and in hanging baskets. Watering in dry spells is appreciated, but over-watering is likely to be fatal. Protection from frost is needed and a twice-yearly application of general fertiliser is also appreciated. Feeding has the effect of broadening the pinnae of the frond and makes the plant look very lush!

Barbara Parris



