SUBTROPICALS

Spring 2002

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.

SPRING 2002 **Volume 1 Number 3**

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SUMMER ISSUE
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SPRING HAS SPRUNG

In fact, it has been around for a month in the milder areas of the country. What is more, spring arrives at much the same time every year.

Declaring that September 1st is the first day of spring for the whole country, as the Metservice insists, denies the evidence of one's eyes and ears New Zealand covers about twelve degrees of latitude, roughly the equivalent of the distance between Rabat in Morocco (North Cape) to one degree 36 minutes north of Bordeaux (Invercargill). Auckland is on exactly the same latitude as Algiers and Tunis, not that this is any indication of climatic conditions.

Recognition of the quite large variations in climate over the length of the country is overdue.

Response to the questionaire on holding an annual convention has been very encouraging. Quite a few members offered helpful suggestions about what they would like to be included. The choice of winter (28th, 29th June 2003) seemed popular as many of our members work a seven day week in the nursery trade. So mark that date in your diaries and help make the weekend a great success (more information is included in the accompanying leaflet).

Membership of **SUBTROPICALS** continues to grow and now stretches from Invercargill to London - an outcome that was never envisaged. The next issue, summer, will be the final one for this year.

Because the magazine needs to cover an enormous range of plant material, there are many areas that are, as yet, completely untouched. If you have any particular interests that you would like to read about or know of any inspirational gardens that you would like featured please let the Editor know. The more photographs information and articles received, the better **SUBTROPICALS** can serve its members.

Marjorie Lowe

SUBTROPICALS magazine

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BRIEFLY DECIDUOUS TREES

(deciduous trees shedding their leaves for flowering period)

When a plant is described as deciduous, most people think of it as losing its leaves in winter as a protection against the cold. Some, particularly bulbs and corms, lose their leaves in summer as a protection against drought. But there is a group, made up mostly of tropical and subtropical trees that drop their leaves at other times of the year.

As these trees come from areas where the vegetation is almost entirely evergreen, it could be that they do this in order that the flowers, borne on bare branches, become more visible to pollinators. For whatever reason, this often becomes a more spectacular sight than if the flowers had to compete with the leaves for attention.

This can become of importance in cooler subtropical areas where the need for maximum winter sun in north facing rooms is desirable. One well-known Australian landscape designer, in a magazine article, suggested planting *Jacaranda mimosifolia* outside a bedroom window for summer heat protection and to maximise winter sun penetration. But this tree belongs to the above group and does not shed its leaves until the end of winter before flowering, usually, in late spring.

Trees that fall into this category include *Bauhinia blakeana* (winter flowering), *Brachychiton acerifolius, australis* and *bidwillii* (early to late summer), *Ceiba* (syn. Chorisia) *speciosa* (autumn), *Bombax ceiba* (winter flowering), *Erythrina sykesii* (winter to early spring) and *Delonix regia* (summer). The New Zealand kowhai (*Sophora* species) could probably be included in this group.

Not all these trees shed their leaves completely. *Brachychiton acerifolius* (Illawarra Flame Tree) from Queensland and New South Wales is well known there for its variable flowering behavior. Trees have been seen with the north facing side of the tree completely bare of leaves and covered in flowers and at the same time, the south facing side has been in full leaf with not a flower in sight. Sometimes only a few branches will drop their leaves to flower. A tree in full flower is spectacular as both flowers and flower stems are bright red. *Ceiba speciosa* is another tree that often combines bare/flowering and leafed/non-flowering branches.

apically...having a minute apex or point
caulescent...having an obvious stem growing above the ground
coriaceous...resembling leather in texture, appearance
culm...the stem of a plant, especially the jointed and usually hollow stalk of grasses
sori...a cluster of capsules or spore-cases on the under surface of fern-leaves – also algae, lichens or fungi

FRONT COVER STORY

CLIVIAS

Terry Hatch

While clivias have graced our gardens for many years, it has only been recently that forms and colours, different from the usual orange, have been available. *Clivia miniata* (orange) is a tough and reliable plant that continues to provide a rich display in late winter and early spring without any attention. It can be grown in any shady spot that is frost free and well drained and, with some care and feeding, will produce many more flowers than is often the case with neglected plants.

With the advent of *Clivia miniata* yellow forms and the collection of different species, plant breeders now have an enlarged palette enabling them to produce a wide range of colours never before dreamt of. Flower shape can vary from the open type through to bells, large or small, some with multipetals. The leaves can also show huge variation from the narrow to the very wide, with or without variegated white or yellow stripes and bands, while some varieties are golden or dwarfed.

SPECIES: upright type

C. miniata – (Kaffir Lily) grows from Transkei, through Natal into Kwa Zulu. Recent wild collections of this species have added a range of large-flowered forms in rich reds, scarlets, yellows and some pastels. With selected breeding work, many new colours – soft pastel pinks, white, creams, and apricots - are being produced. Added to these are picotees, doubles and feathered petals. Most of these have wide leaves, which are an all year round attraction. The large red, yellow or orange fruits add to the display. Variegated forms have also been produced.

SPECIES: pendulous types.

These are the most confusing types as they are much alike to the non-botanist.

C. caulescens (Stalked Clivia)– while not yet common, this clivia from the shady forests of the mountains of eastern and northern Transvaal, can be purchased. It produces a long stem, which can become quite tall. The stem in the photograph on page 9 is conjectured to be at least twenty to fifty or more years old. The pendent flowers are mostly orange.

C. gardenii – has a similar distribution to *C. miniata.* This species is the one often seen in collections. It quickly makes large clumps of pale green leaves. The flowers (soft orange with green tips) appear mostly in May-June with the occasional one at other times of the year.

C. mirabilis – a rare species, recently described in 2002, has flowers somewhat like *C. nobilis*.

C. nobilis – (Cape Clivia) is found in the coastal strip from Port Elizabeth in Eastern Cape into Transkei. This is uncommon in cultivation in New Zealand. A dwarf plant, very slow growing, it will take many years to produce flowers (possibly 7-12 years). The dark green leaves often have a paler stripe down the centre. Often, fifty or more orange, green tipped bells are produced on the 40-50cm tall spike. It enjoys a sandy soil.

There are also rare yellow forms.

C. species (Swamp Clivia) – from Natal has not yet been named. A rare species in New Zealand at present, this will grow in wet conditions. The plants grow huge and can be well over 1.5m tall. The flowers are much like *C. caulescens*.

HYBRIDS:

GREX NAME	**PARENTAGE**
C. Caulgard	*C. gardenii* x *C. caulescens*
C. Cyrtanthiflora	*C. miniata* x *C. nobilis*
C. Minicyrt	*C.* Cyrtanthiflora x *C. miniata*
C. Minigard	*C. gardenii* x *C. miniata*
C. Minilescent	*C. miniata* x *C. caulescens*
C. Nobilescent	*C. nobilis* x *C. caulescens*
C. Noble Guard	*C. gardenii* x *C. nobilis*

C. Cyrtanthiflora (*C. miniata* x *C. nobilis*) – These hybrid clivias are often seen in gardens and mistakenly called *C. nobilis*. The pendent flowers appear throughout the year. They come in a range of colours, including many soft apricots, often with edges flushed green and flowering throughout the year.

All clivias make good cut flowers, lasting well and adding colour, often when there is a lack of flowers available. A few are scented with a frangipani fragrance.

To produce good results with these plants, mulching with plenty of compost or animal manure is of great benefit. The plants have to grow thirteen leaves before they will flower the first time and a further four leaves for the next flower, which on a starvation diet can take a number of years! So the rule is – plenty of feed equals plenty of leaves equals plenty of flowers.

The clumps should be left undisturbed for as long as possible and only need dividing when they show signs of deteriorating through overcrowding.

THE FIRST NEW ZEALAND CLIVIA EXHIBITION

AUCKLAND REGIONAL BOTANIC GARDEN, HILL ROAD, MANUREWA
SATURDAY, SUNDAY, 12TH, 13TH, OCTOBER 2002
9AM TO 4PM ENTRY FEE $2.00

The clivia is a plant that is gaining popularity in various overseas countries. A number of enthusiasts have been building up collections in New Zealand over many years, and those of us who have been in communication with each other, feel that it is time to hold an exhibition to demonstrate what has been achieved.

In addition to the main display of potted clivias, the Auckland Regional Botanic Garden staff will stage a display of clivias in association with some of the plants that occur naturally with clivia in the wild in South Africa.

We are fortunate that specialists from other parts of New Zealand and Australia will attend the exhibition and have offered to pass on information. We intend to run workshops, talks and demonstrations at advertised times, but in such a way as to allow visitors to come and go as they please. Floral artists have been invited to demonstrate how clivia blooms might be used in floral work.

Six individuals/nurseries have undertaken to make plants available for sale throughout the two days of the exhibition – from seed, young seedlings to fully mature plants in flower. Clivia plants take a long time to produce. Seed takes nine months to mature and plants grown from seed seldom flower in less than four to five years.

This will be a great opportunity to obtain plants not normally available including those from specified crosses – in many cases the parents will be on show.

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FRONT COVER: *Clivia miniata* naturalised under palms at Opanuku Subtropicals. **Photo: Gordon Waddell**

Opposite:

Top left:
The as yet unnamed Swamp Clivia, photographed in habitat at Umtamvuna in Natal in full flower.

Top right: *Clivia gardenii* – orange form

Middle right: *Clivia nobilis* – very different from the form (*C.* Cyrtanthiflora) sometimes sold locally as *C. nobilis.*

Bottom right: *Clivia gardenii* – yellow form.

Bottom:
Clivia caulescens photographed in habitat in the Transvaal.

Inset: *C. caulescens* flowers.

Photos: Dr. Keith Hammett

Dendrocalamus latiflorus (Syn. *Bambusa latiflora*)

Ma chuk, Ma tsu, Sweet Bamboo.

Originating from the collection at Lingnan University, this plant was brought into the United States by Floyd McClure, who introduced hundreds of bamboos around the world, including the Pacific. It was imported into New Zealand in the 1930s by the DSIR. We acquired a weak segment from a declining specimen belonging to another collector, Dalrymple, in Bulls.

Dendrocalamus latiflorus is a fifteen to twenty-five metre subtropical bamboo with deep green to orange tapering culms, 8-20cm at the base. The fibrous culm wall is almost 3cm thick near the base, narrowing quickly to almost 1cm at midway. Frost tender and shallow rooting, it grows best in coastal, sheltered northern localities with good water supply and manure. The 35cm x 7cm foliage fairs poorly in windy reaches but the lower portions of this giant clumper more than makes up for the tousled head. In Auckland, the bamboo's growth rate is about 80 per cent of that in its native China.

Large sheaths (50cm wide by 40cm high) protect the quick-growing shoots, which are known to reach 9.7m in 18 to 120 days. While having a glassy smooth inner surface (useful for etched printmaking and food wrapping), the sheaths also have fine siliceous hairs on the outside, which can be an irritant. Although of no durability, the timber is used for interior panels, paper pulp and light furniture. Being more hollow than the typical utility species, the 60cm distance between the fibrous membranes (nodes) in the interior is useful for the making of rafts, in crafts and provides useful containers for steaming rice. The shoots are edible, but only where growth can be made rapid by abundant moisture, high humidity and soil rich in humus.

The culms need periodical thinning to keep them separate and to prevent aerial roots from developing where litter might otherwise build up. Allow an area of 3-9sq m for the plant and maintenance. Due to the volume of sheddings, height and size, this giant has no place in the average garden, but as an entrance avenue or beside water it is spectacular.

Photo & text: Pauline Isaachsen

SARRACENIAS – North American Pitcher Plant

Looking rather like space-aliens, these plants are insect catchers from North America, coming mainly from the coastal plain areas from New Jersey to Texas, although one species does grow as far north as Labrador.

Sarracenias are not to be confused with the tropical pitcher plants, which are generally climbers usually growing in poor soils. They have modified leaf tips for trapping insects.

With sarracenias, which grow in bog and wetland areas, the whole leaf is modified to become a generally elongated "horn" or "cup" partly filled with liquid to drown the unfortunate captives. Some of the "horns" are very smooth inside; others have down pointing hairs, which stop anything walking out. The horns come in shades of green and/or red – sometimes even being marked with blood-like veins or marbled with white.

Flowering is in the spring. The flowers, which are large and often scented, stand out above the pitchers and can come in greenish-yellow through the reds to nearly purple. They are often commented on for their beauty when in flower here in Kerikeri.

These are very easy to grow as pot plants as they only require full sun and water to stand the pot in. I grow mine in a mix of sphagnum moss and a low nutrient potting mix. They seem to thrive, giving a good-sized plant after a couple of years. When the plant becomes too tight in its pot it can be divided, which I usually do in the spring. Sarracenias can be grown from seed although I find them slow, as the pitchers are so minute at the beginning. The species hybridise readily giving rise to some interesting colours and forms. Most plants available for sale are hybrids.

Robin Booth

The sarracenias in the photographs on page 10 were photographed at Joy Nurseries in Pukekohe. They were still looking handsome in late April and many had long dead flower spikes that had turned black.

The clumps were planted into polystyrene boxes with holes drilled in the bottom to allow water in. Despite the weight of the plants and the water, the polystyrene containers kept them from sinking. The pond is quite large and it was fascinating to watch the containers being moved by the wind over the surface of the pond. Here they are kept in full sun and can never dry out.

Another way to grow them, if space is at a premium, is to do what one of our members has done. He has resurrected an old birdbath and planted his sarracenias into sphaghnum moss. Raised above other planting and in full sun, the only requirement is to make sure the clump does not dry out in summer. With no drainage holes this is not too onerous a job.

These pitcher plants are anything but subtropical in their requirements but they certainly add an exotic air to the garden and must keep some insects down. The main drawback is that, being cold climate plants, they have a dormant period (when they look rather tatty) from about late May until the new growth starts in August. The flowers appear first.

LETTER

Re the article - "Buyer Beware" by Brian Timms (in the autumn issue).

I do believe that the yucca group of plants is a great one. I live on the French Riviera by the 43rd parallel north (NZ equivalent is Christchurch) and enjoy my tall *Yucca elephantipes*, a fast growing, problem free, very exotic looking plant. I must have a dozen of them and I remain breathless when they are in bloom. After all they do not take that much ground space, nor do my tall *Yucca rigida* and *Y. rostrata*. I have also *Y. brevifolia* from seed, *Y. gloriosa, Y. aloifolia* 'Marginata' and *Y. whipplei* (a vicious dwarf). My last is *Yucca australis,* a potential monster, and the only one maybe I would think twice about before putting it in the ground.

As for the aloes, *A. bainesii* is a good choice for those with the right climate. I've got one and, from the mature specimen I've seen at the Melbourne Botanical Garden, it's truly vertical in stature and no problem in taking ground space. Some palms can be of more concern, spine and space wise, e.g. *Phoenix dactylifera* and *P. reclinata*. But I love those two too and have three of the former and some seven of the latter!

I will agree with Brian regarding agave. *Agave ferox* can get huge in time, up to 3m wide, with no indication that it could lead to precarious situations. I've three of those but on banks. Naturally, they will bend upright to the sun; thus it can be planted rather close to pathways if on steep banks.

I take this opportunity to congratulate the Editor for the good **SUBTROPICALS** publication.

Renè Coativy
President & Editor, French Manureva Society for Exotic Plants.
Director of the International Palm Society.

It is so heartening to receive feedback from other people and publications so early in our career.

Renè Coativy gardens on 2000sqm, which is heavily planted in succulents, palms and other 'exotic' plants (including Kahili ginger – a noxious weed here).

There are two main reasons for Brian Timms' cautions, especially about the yuccas, which our correspondent does not find a problem. The first is space. These days the norm is often 400-600 sqm with the buildings and driveways to be subtracted from that area. Even if a plant occupies little ground space, the canopy can be a problem with close neighbours.

The second is our growth rate. With no extremes of hot or cold, all year moisture, high humidity, warmer winter temperatures and (usually) fertile soils, plants grow at a very rapid rate - often more quickly than in their homelands. Yucca elephantipes certainly deserves its name. **Editor**

THE GREAT PRETENDERS

Farfugium (syn. *Ligularia*) *tussilaginea*

The species, hardy down to -5°C but deciduous below -7°C, has plain, bold, rounded (almost kidney shaped) medium green leaves accompanied by tall spikes of yellow daisy-like flowers, usually in autumn. In good moist soil, the clumps are about 60cm high with a greater spread, but less in harder conditions.

Farfugium tussilaginea originates in Japan where it has been much hybridised. Resulting forms (all with yellow daisy flowers) include: 'Aureo-maculata' (Leopard Plant) – heavily marked with large creamy yellow spots and hardy to -5°C; 'Crispata' - with light green, veined leaves with curled and crested edges, and **'Argentea' (illustrated opposite)** - with very striking, irregularly mottled leaves in dark green, creamy-white and grey green.

Photographed in deep shade in dry conditions under rimus in the subtropical section of the Jury gardens at Tikorangi, New Plymouth, the plants looked very healthy and undamaged, late in what has been a wet winter.

Like hostas, farfugium leaves are subject to damage from slugs and snails (baiting is usually essential) but, unlike hostas, they are evergreen except in very cold conditions.

Aechmea recurvata

This bromeliad from Brazil has three varieties – *benrathii, ortgiesii* and *recurvata* - that grow on rocks and trees in part to full sun. Both *Ae. benrathii* (small) and *Ae. recurvata* (with protruding inflorescence) are relatively short-lived in their brilliant colouring. *Ae. ortgiesii*, however, has a bright red inflorescence, low down in the centre, that stays in colour for at least six months. These varieties will stand full sun, frost (*benrathii* and *ortgiesii* to -7°C, *recurvata* to -3°C) and are generally pretty tough. Their leaves have been described as "robustly serrated" (protection is needed when working with them), making them an excellent border plant to keep cats and dogs at bay. Flowering time varies between late autumn and early spring. *Ae. recurvata* is a much-hybridised species, passing on most of its characteristics to its progeny.

Bottom left: *Aechmea* Suenios (*Ae. recurvata* var. *benrathii* x *Ae. cylindrata*) makes an attractive clump with pups taking twelve months to reach flowering stage. The inflorescence has mauve flowers emerging from golden yellow bracts flowering upwards from the base of the spike. As the flowers die the bracts turn red and eventually the whole spike becomes red. This process can take at least two to three months, the spike lasting in colour for a further three to four months. This hybrid has particularly sharp (although small) spines.

Bottom right: *Aechmea recurvata* hybrid – In the 1960s, New Zealand bromeliad grower Charles Allan made many recurvata crosses, of which the one in the photograph is a typical example. He did not, unfortunately, record their parentage or give them names. Plants similar to the one illustrated are still to be found in gardens and at specialist bromeliad nurseries. Desirable because they are tough, long flowering over the coolest months and make striking clumps in the garden.

Aechmea fasciata

In the foreground of the photograph opposite are several clumps of *Aechmea fasciata,* which in nature is found growing on trees in the mountain forests of southern Brazil from 500-1500m. Cultivated since 1826, it is probably the best known bromeliad after the pineapple and Spanish Moss. This is not surprising, as the longevity of the inflorescence of this bromeliad and its hybrids and cultivars is amazing.

In Auckland it usually comes into flower in February or March and, after the flowers have faded (usually in about a month), the bract remains colourful almost to Christmas (the deep pink spike is from the previous season). In rain or after watering, the bracts become iridescent.

The bracts of the flower spikes can vary from palest pink to magenta and are accompanied by green leaves (sometimes dark wine) barred with wide silver cross bands that can be wiped off with handling. Some plants have leaves so solidly dusted with silver that the bands disappear. When the white flowers arrive they have petals of an intense pale blue, which changes gradually to pink and then magenta.

The plants require little care, tending to flower better if kept slightly on the dry side. When this photograph was taken, it was discovered that the original clump of four plants had never been removed from its clay pot, which is still there hidden underneath. Healthy pups will usually flower in two years. If left undivided, they will make a handsome clump and flower more dependably than if grown in a pot. Fast drainage, good air movement and part shade are necessary. *Aechmea fasciata* is reputed to be hardy down to 0°C.

The bromeliad in the background is *Aechmea gamosepala* at the seed stage. In the flowering stage it has pink horizontal bracts tipped with blue flowers. The bracts change to mauve then green and after a couple of months, change again to a deep rose (as illustrated). This bromeliad is easily obtained, grows in sun or shade and flowers within six to nine months. Almost always with some colour, it is good for filling a corner – and, quote, breeds like a rabbit!

Tabebuia chrysotricha

This yellow-flowering deciduous tree was photographed at Nestlebrae Exotics in mid October last year. See the article on page 22.

FRAGRANCE

Never underestimate the power of the sense of smell. Of all the senses, smell has the greatest ability to trigger memory and over the longest period of time. It is the sense guaranteed to bring back scenes of the past unbidden to the mind. Who has not been suddenly assailed by childhood memories of summers at the beach when smelling the distinctive odour of resinous pine needles heated by the sun; of dried pine needles covering the sandy ground?

A friend, sophisticated and much travelled, was visiting the village of Portmeirion in the UK where the cult TV series "The Prisoner" had been filmed. While climbing a steep path up through the village, she found herself unaccountably overcome with strong feelings of homesickness - totally out of character. Stopping, she turned around to look at the view and there, to her amazement, just below, was a clump of several *Cordyline australis* in full flower and wafting their powerful fragrance on the air. She had not noticed them on the way up and was not aware that she was familiar with their scent.

It is hardly surprising then, given the choice between two or three suitable plants for the garden, that one should choose the one with the added benefit of fragrance. The traditional leis of the Pacific could be made of brilliantly coloured blooms but the usual flowers used include frangipani, gardenias, jasmine and ginger. The heat from the body intensifies the perfume and thus the experience.

Reaction to fragrance varies. Smokers usually have very little sense of smell. Brunettes react more strongly than blondes and albinos not at all. Sex too – women generally have a keener sense of smell than men. A BBC documentary on the sense of smell showed passersby being invited to smell a large bunch of freesias – it was amazing how many of them said they couldn't smell a thing! And then, not all scents are pleasant. What one person will describe as appealing, another will find repellant. The smell of mangroves, which is both earthy and mossy, repels many. To some, the wafting fragrance from a privet in flower represents the idea of summer. To others it spells hay fever and asthma attacks. The night scented 'Queen of the Night', (*Cestrum nocturnum*), often suggested as suitable for planting beside a bedroom window, is so powerful that many feel quite ill from the smell.

Living high on a hill or on a cliff top is marvellous for the extensive views they afford. However, it does nothing for the gardener wanting to establish a fragrant garden or even to plant a few scented plants. The prevailing winds steal their perfumes away and dissipate them on the air.

To quote Roy Genders – "Scented Flora of the World" -

"The scents of flowers are usually more pronounced on a warm, calm day, especially plants growing in the semi-shade of valleys (even in the Himalayas) and woodlands: they frequently have a more powerful perfume

than those that are common to higher regions. This is because in the more shaded places the flowers rely almost entirely upon their perfume to attract pollinating insects. Also, the perfume seems more powerful because it is not so readily diffused as it is on higher ground swept by wind.

Gardeners of earlier times relied upon walls and thick hedges to retain the perfumes of the flowers, and when planting a scented garden some form of enclosure should be provided, possibly evergreen hedge plants bearing scented flowers, which will provide year-round protection. One such plant is *Viburnum tinus*, or the escallonias which, with their resinous foliage, are tolerant of salt-laden winds, and several of which bear scented flowers. For the same reasons, scented plants growing against a wall will give a more pronounced perfume than elsewhere in the garden".

This advice was written for United Kingdom readers but, with a large, often wind swept coastline (although a milder climate), much of it is relevant to us.

In the garden, the most identifiable as scented plants are the 'wafters' These are the plants whose fragrance can sometimes dominate a garden and can always be smelled at some distance from the source. *Alseuosmia macrophylla* (Toropara), a bush dweller – cool, moist shade – was discovered because of its widespread scent. *Alocasias macrorrhiza* and *odora*, *Cyphomandra betacea* (Tamarillo), *Carica pubescens* (Mountain Pawpaw), *Hymenosporum flavum* (Australian Frangipani) – these are a few of the most powerful subtropical 'wafters', sometimes recognised up to twenty or more metres away. And the smaller plants? A clump of freesias is guaranteed to please as are the shrubs *Boronia megastigma*, *Gardenia* Radicans and the smaller forms of luculia.

And then there are the 'sniffers'. One can bury one's nose in the flowers for maximum appreciation or cut them for the house where the confined, warm space will sometimes encourage them to become wafters in captivity. In reasonably enclosed areas outdoors, the sniffers plus the wafters amalgamate to form a general fragrance. This is particularly strong in summer in the early morning as the day begins to warm and later in the day as dusk falls. At these times the air is often fairly still and it can be a very heady experience.

Taller plants like magnolia species and hybrids and brugmansia species and hybrids need to be planted on slopes and/or placed where they can be appreciated at canopy level at upstairs windows and decks.

Flowers that are fertilised by butterflies and moths are the most strongly scented. Especially fragrant are the night scented flowers, which are mostly white or pale yellow. They open only in the lower temperatures of shady places and at night.

The ultimate collector's experience is the "one night stand" of *Epiphyllum oxypetalum,* which scents the air for just a night in the year!

THE COOL SUBTROPICS – part two
Nick Miller

In part one of this series I described our gradual conversion from roses and perennials to subtropical gardening. This part looks at some other plants, mostly trees or shrubs, that we have tried. As these notes are being finalised, we are nearly at the end of July, but have yet to see a single frost. Plenty of rain though!

The tabebuia mentioned at the end of my previous article was purchased as *T. chrysotricha* and was initially planted in our Coatesville garden, where it did not thrive. It accompanied us to Rotoiti (on the back seat of a Mini Minor) and had two new homes in succession, both rather windswept. In one of these it even managed to produce a few chrome-yellow flowers. Eventually it settled into our new subtropical area and has grown slowly but steadily. It has yet to flower again, but as it grows above the canopy into the sun we have hopes that this will change.

Tabebuias are native to tropical America and are a tree that should be planted more widely. According to that excellent book - *The Tropical Look* (Robert Lee Riffle, 1998, Thames and Hudson/Timber Press). *T. chrysotricha* comes from Colombia and Brazil and is hardy in Zones 10 and 11 and marginal in Zone 9b. Our garden would probably be considered as Zone 10, but lacks the summer heat usually expected in that zone. Years ago I read an article about host trees for orchids. According to the author, tabebuias are excellent orchid hosts and can be propagated like willows or poplars, by cutting off a large branch and sticking it into the ground. I have never tried this, but some reader may like to give it a try and report back.

Meryta denhamii from New Caledonia, a relative of our native Puka, has grown slowly but steadily over the last few years. It is now about 1.8 metres high, and seems untroubled by last year's cold winter. The leaves are still long and narrow, whereas foliage on those plants still in the Tauranga garden centre where I purchased it have started to widen out into the adult form. I don't know whether this is a response to our cool climate or to semi shade - as it emerges into the sun maybe it will change. Actually I prefer the juvenile foliage, which is very attractive.

Also providing overhead shade to this garden are a tamarillo (*Cyphomandra betacea*) and a casana (*Cyphomandra x*). We have two tamarillos in our garden – one yellow and one red. Both fruit quite well and suffer no apparent cold damage. However, the yellow form appears to ripen its fruits better, and earlier in the season, although the fruiting season does seem to be affected by the month in which the tree is pruned – late pruning equals late fruiting. The casana also fruits quite well, although these fruit always seem to me to have a slight flavour of turpentine. I do not think that any selection work has been done on this species and a few generations of breeding might produce some good

results. Both species have handsome, 'tropical' foliage, with the casana maybe slightly ahead in this respect. This winter, either rats (more likely) or opossums have been eating the casana fruit before they are fully ripe.

The treefern, *Cyathea robusta,* from Norfolk Island is living up to its name and will need to be shifted – it is shading our greenhouse in the winter. It has very lush fronds with pale brown scales underneath, like an albino mamaku (*C. medullaris*) on steroids. A handsome plant but needs space. *Cyathea tomentossissima* from highland Papua New Guinea has excellent finely divided fronds and is much slower growing for us, but our plant needs more light – I suspect full sun would be best.

Cordyline stricta from Australia grows in the front of this garden in full sun. It forms a handsome plant with reasonably broad leaves and flowers freely. Another plant, possibly of the same species but obtained from my brother-in-law's garden in Castor Bay, has longer narrower leaves. It is taller growing but tends to straggle through other plants and loses some leaves over late winter. It is often seen in old gardens, but seldom in garden centres. The plant sold as *Cordyline* 'Nigra' (from Papua New Guinea) with dark green-purple leaves also loses a few leaves in winter but otherwise tolerates our climate. I have the impression that plants near the coast have much darker foliage than ours does. Dr Ross Beever of Landcare Research, who is interested in cordylines, thinks this may be a species in its own right.

Now I will move away from this initial attempt at subtropica and describe a few shrubs or trees scattered elsewhere around our garden.

One of the first plants we put in on arrival was the lovely *Luculia gratissima* 'Early Dawn' (it wouldn't grow at Coatesville). This species has the reputation of being short-lived, but ours has flowered every winter for twenty years. It is still in flower as I write this and scents much of the garden. Every two or three years we prune it back hard after flowering. Not far away, and also an early arrival, is *Luculia pinceana* (often sold by nurserymen as Fragrant Dawn). This is taller growing and more gawky in habit than its cousin, but the large heads of soft pink flowers (each about twice the size of *L. gratissima*) make it worth while. It is also perfumed, but not so strongly. Every now and then its new shoots are attacked by leaf-roller caterpillars, which don't seem to bother *L. gratissima.* A more recent arrival is *L. intermedia*, from Os Blumhardt in Whangarei. For the first few years it didn't make much impression, but this year it has excelled itself. It has flowers similar to *L. pinceana* but paler in colour and rather smaller. It produced good heads of flowers in early autumn and has had a second crop right through the winter. At present we have all three species in flower together – I should start hybridising. *L. intermedia* has set a large crop of seed pods without assistance. Is it self-fertile or has it crossed with others? The fourth species, white flowered *L. tsetensis*, has never been successful for us.

Also from Os Blumhart was a gordonia, from either Vietnam or South-

China. It is now about five metres tall, very upright in growth, with handsome large glossy leaves. The flowers, produced in late autumn and early winter, are larger than the well-known *G. axillaris*, white with a boss of golden stamens. I suspect this is the plant now being sold as *G.* 'Moonlight Magic'!

On a raised terrace area in front of our living room we have also "gone troppo". This is a hot sunny spot, so trial and error has been going on here for a few years now. Condor, a tree that may be a schefflera species from the Andes, has grown slowly but steadily to 1.8 metres, with no obvious cold damage. It has perhaps the most 'architectural' foliage of any plant that I have seen. This came from Dick Endt and was rather expensive but worth every cent. Perhaps Dick could let us know if it has a proper name yet. Every visitor to our place who has any interest at all in plants always exclaims over it. Highly recommended, and I drool over it every time I walk past it.

Near this are two more cordylines from Australia. *C. petiolaris* has handsome large broad leaves on long petioles, and grows well for us, giving a very tropical effect similar to a green-leafed *C. terminalis* (now known as *C. fruticosa*). *C. rubra* has narrower leaves, rather like *C. stricta*, but longer. It produces attractive red berries in autumn. We have tried three forms of *C. fruticosa*, the ti of tropical Polynesia. One, bought as *C. fruticosa* 'Pink Edge' struggles but just survives. Two others, both small and similarly broad-leaved and bronze-coloured, bought as 'Fijian Bronze' and the appallingly named 'Stud Muffin', survive the winters OK but get devastated by caterpillars, to the point where they are not worth garden space.

Another tabebuia - *T. chrysantha* - also grows here. It grew very quickly for the first two or three years, but has since slowed down – possibly two cool wet summers have been responsible for this. About 1.8m high, it is growing in full sun, but has yet to flower.

Average annual minimum temperature

ZONE	CELSIUS	FAHRENHEIT
9a	-3.9° to -6.6°	20° to 25°
9b	-1.2° to -3.8°	25° to 30°
10a	-1.1° to 1.6°	30° to 35°
10b	1.7° to 4.4°	35° to 40°
11	4.5° to 10°	40° to 50°
12	10° to 15.5°	50° to 60°
13	15.6° to 21.1°	60° to 70°
14	21.2° to 26.6°	70° to 80°

● The above chart is based on the US Department of Agriculture Hardiness Zones but with the addition of three further zones, (12, 13 and 14) to cover the warm subtropical and tropical areas of the world.

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Niphidium crassifolium

Niphidium crassifolium is a member of the fern family Polypodiaceae and was formerly known as *Polypodium crassifolium*. It is native to the New World, extending from southern Mexico and the West Indies to Bolivia and Brazil. Although rarely encountered in New Zealand gardens, it deserves to be more widely known. The plant material in cultivation in New Zealand was collected by Dick Endt in southern Ecuador.

The glossy dark green, coriaceous, undivided fronds can be more than 1 m long and up to 14cm wide, with prominent veins on the lower surface and large orange sori in single rows between the major veins. The scaly rhizome is creeping and branches to form clumps about half a metre in diameter. In the wild it usually grows on rocks and on tree trunks and branches, but in cultivation will also grow in hanging baskets, on tree fern trunks and in free-draining soil. Growers in the United States report that it can stand several consecutive days of freezing to -7°C, so its hardiness, at least in the subtropical parts of New Zealand, seems assured. This is one of a select group of ferns that does not require shade and high humidity. It is at home in a sunny rock garden, but is also happy in light shade. The thick-textured fronds last well when picked for floral art.

Barbara Parris

Photos - Top left & bottom right:

These photographs were taken in Nick and Elizabeth Miller's garden at Lake Rotoiti – see article on page 22.

Kohleria eriantha

This plant belongs to the much overlooked Gesneriaceae family. Gesneriads have long been treated as glasshouse plants because of their tropical and subtropical origins - some of them are now being found to be worthwhile garden plants in our climate.

From Colombia, it has leaves that are soft and velvety, sometimes with red edges. In the species, the flowers are gloxinia-like and bright orange-red with yellow spotted lower petals. Hybrids are now being bred at Pukekura Park in New Plymouth, using species from higher altitudes.

In the garden it can grow to 1.5-2m high, depending on the support, as the stems are not rigid and can be floppy in the early stages. A new stem can produce flowers when less than 30cm high and continue to do so for 6-8 months. Older stems lose their leaves and only flower at the top, so need to be cut out when space is at a premium. The plant increases by suckers, which move forward, leaving the original planting place bare. In small spaces it may be be necessary to replant. Frost tender, it will tolerate temperatures down to 3°C, prefers part shade and moist, fertile soils but stands tougher conditions.

(See page 36, top right and **opposite - top right and bottom left).**

Aloe plicatilis — Fan Aloe

A justifiably popular plant with its striking silhouette and scarlet, late winter or early spring flowers, *Aloe plicatilis* has been grown in New Zealand for many years. Native to a small mountainous region in Cape Province, South Africa, where it receives rainfall of 65-150cm a year, its distribution is in fact restricted to the higher rainfall areas.

So in your garden it loves water, whether natural or applied. Blackened leaf tips and flaccid leaves are a sure sign of insufficient water. If fans become noticeably smaller, it needs more root run, fertility and water. In other words, a bonehard patch of soil surrounded by concrete paths will eventually take its toll – the fans will become tiny and then fall off altogether. Not pretty!

Slowgrowing, in its native habitat it can grow to 5m in height, but plants in New Zealand tend to be shorter and wider. The plant illustrated is growing in an Auckland garden and has (after about fifty years) a trunk of at least 60cm in diameter!

This aloe is grown from branch cuttings or seed. Be aware that new growth **ONLY** forms apically, so injudicious cutting scars will never become obscured by the new growth. Hybrids of *A. plicatilis* seem to be weak and unworthy.

With a cunningly positioned spotlight, it can make a fantastic shadow on a stucco wall at night.

Text, photo: Martin Walker

Ceiba (syn. *Chorisia*) *speciosa* — Floss Silk Tree

One of the most spectacular flowering trees that I know is *Ceiba* (formerly *Chorisia*) *speciosa* from Brazil and Northern Argentina. The first thing one notices when standing besides the trees are the thick based, conical spines, which cover the trunks and can extend onto the branches. Each tree has a different amount and coverage of thorns – some trees lack them entirely. The other thing that stands out is the green bark, even on the main trunk, which means that the tree has enough chlorophyll to carry on growing over the winter months. Growth in this instance means adding girth to the trunk and branches. By the end of winter one can see stretch marks on the bark.

Like other briefly deciduous trees (see article on page 5), *C. speciosa* drops its leaves before the flowers appear in autumn. Some branches may still be in leaf and do not usually come into flower.

C. speciosa is a fast grower when young, then slows, growing eventually to about 15m. It is hardy down to 0°C, but loses its leaves at about -3°C. It withstands drought, wind and coastal conditions, but needs free draining soil with reasonable fertility. Summer water speeds growth.

Robin Booth **Photos: Robin Booth, Grant Bayley**

"In the Wake of the *P. quad.*"

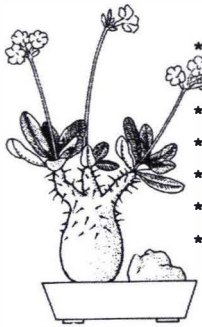
Getting botanical names right can often seem as long-drawn-out a quest as the hunt for the great white whale in Melville's classic story. **John Prince** *first looks at a sensible question about the giant granadilla which has been widely available in recent years, and then he turns his attention to an update of last issue's update (!) on the correct name for the spectacular red flowered banana.*

Is the largest passionfruit properly identified in New Zealand?

Passiflora quadrangularis (the giant granadilla, with fruit of grapefruit to football size in hot conditions) has been in this country for many years as the result of private importations of seeds. You may be growing it from plants put out by Tharfield Nursery under the well-distributed "Incredible Edibles" label. In that case you are likely to have a plant that was ultimately sourced from us, as my partner, Rosemary Steele, supplies Tharfields with propagation material for a number of species, some of which are passionfruit. Quite reasonably, one of their customers has asked them why their flowers are purple, rather than like the photographs in popular garden books. The flowers on the plants from Tharfields look more like a bigger version of the carmine, purple and white flower of *P. alata* which can be seen (wrongly captioned) in the **top left** photo on p.28 of the Winter issue. The answer seems to be that the gorgeously scented, violet-flowered *P. quadrangularis* is a higher elevation variation within the species. It has sometimes been separated out as *P. macrocarpa*, but the botanists' websites that mention it, in both English and Portuguese, firmly reduce it to synonymy with *P. quadrangularis*. The good news is that it's almost certainly a better choice for us, anyway, being more cool tolerant because of its origins. In New Zealand it won't give you extremely large fruit but, in warm, frost-free situations, it does produce edible granadillas. The heavy, spicy tropical perfume of the flowers is reinforced by the similar scent of the ripe fruit skins. Unfortunately the eating quality, while OK, doesn't match the wonderful appeal of those smells.

Musa coccinea vs. *Musa uranoscopos*: recent developments.

Two articles by different groups of botanists have just appeared, and they concur on *Musa coccinea* as the valid name, deriving from the work of Andrews in 1797. The argument turns on what Loureiro was actually looking at as the basis for his description of a red-flowered banana that he published in 1790. Three Chinese botanists, writing earlier this year, rejected *M. uranoscopos*. More accessible is the work of Argent and Kiew in the RHS's publication, *The Plantsman* in June of this year, and they come to the same conclusion. David Constantine has an excellent, technically aware website on the Musaceae, and I took some information from it for the article in the previous edition of *Subtropicals* in which *M. uranoscopos* won the day. As he wistfully wrote to me recently, "personally, I shall miss the euphonious, Greek stargazer".



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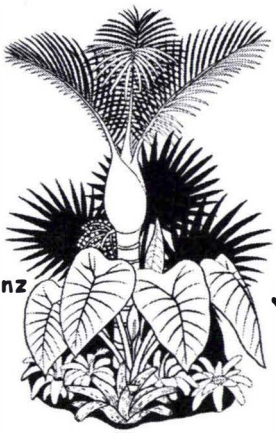

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CYMBIDIUMS – EN MASSE

Leaving Auckland at 9am on a late winter morning, heading for Te Puna Quarry Park just outside Tauranga, we (Ray Welsh, Grant and I) wondered what kind of weather we were going to strike. Fog was still lifting from the Hauraki Plains as we drove south, but by lunchtime when we reached our destination it was a gloriously warm and sunny day. Not good for photography but we did the best we could.

Like Eden Gardens in Auckland and the Quarry Garden in Russell Road, Whangarei, a new public garden is being formed from an old disused quarry. Volunteers from local garden clubs and plant societies are working hard to beautify the space.

The land slopes upward quite steeply from the large parking area, which is accessed from the end of a winding rural road. The gradient of the paths and accessways that have been made is not too great for a leisurely stroll to the highest point, which gives wonderful views of the countryside and out to sea.

Watercourses and a lake have been constructed. Rocks, some of them massive, are everywhere. Steps formed up the slopes and through the plants entice you on to more views, often with a seat as well. Sculptures of all kinds, some of them great fun, are placed in strategic spots, always touchable. Wooden structures include pergolas, the odd small bridge and the seats and tables at the edges of the carpark where you can picnic and enjoy the views at the same time.

Existing vegetation consisted of pines, treeferns and gorse! Originally it was thought that the gorse would pose problems but, because much of the planting has been done with little disturbance of the ground, this has not happened.

The area planted by the Tauranga Orchid Club is well up the slopes. About five years ago, a quantity of cymbidium plants was donated by John Kenyon of Te Puna Cottage Gardens. These plants had been used for the cut flower trade but the colours had become unfashionable and so they had to go. A quantity? Four tip-truck loads arrived in spring at the quarry and were unloaded at the base of the access road from the carpark.

The size of the pile can be imagined. They were left there, untouched, until the autumn rains. Then, with the aid of a borrowed tractor and trailer, club members shifted the clumps (unbagged) up to their planting areas. Some of these were so steep that they simply rolled the plants downhill and placed them where they ended up. Very natural looking!

This of course took a great deal of time and labour but the results, as seen in winter 2002, are quite spectacular. Masses of cymbidium clumps, many of them 1.5m in height and sometimes more in width, line the main access path and are covered in flower spikes carrying thousands of blooms. Beyond the paths and steps, cymbidium spikes rise above the

other vegetation. From white to cream, yellow and green, from pink to rose to almost wine, the range of colour is wide. As you will see from the close-ups of the flowers in the photos opposite, the blooms are almost all unmarked, looking as if they had been grown in a glasshouse. Some chomping creatures may well be there, but their handiwork was not visible. Heavy rain did not seem to have done any damage either.

By chance, we were there at the same time that a small band of the most regular orchid club members drove up with a trailer load of (mostly) *Dendrobium kingianum* hybrids. Audrey Hewson, Bruce Irwin, Mary Parkinson and Dick Williamson were there to attach them to the surrounding tree trunks. Now that there is so much on the ground (placing orchids on top of the soil is great for fast drainage and very labour-saving), they are concentrating on growing the orchids epiphytically as well.

While Bruce and Dick slaved away with the dendrobiums, Audrey and Mary showed me around. They explained that, although all the cut flower cymbidiums were hybrids, there were some species. These included a huge *Dendrobium lowianum* (from Burma, southwest China and northern Thailand) nearly ready to flower. The peak flowering period for the cymbidiums was yet to come and they assured me that from mid August to September the display would be even better! The show starts in February with the miniature cymbidiums and continues throughout the year, with different kinds flowering until late November, early December.

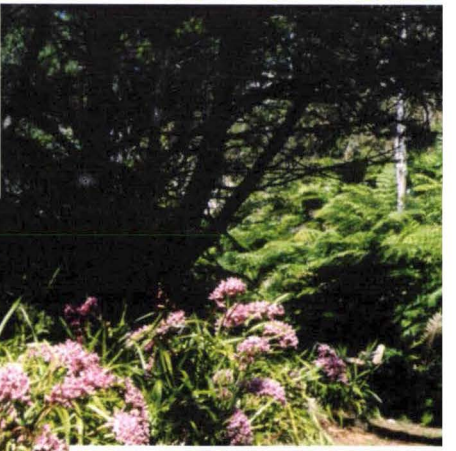
But cymbidiums are not the whole orchid story. In the seepage areas surrounding the lake are disas and masdevallias. Elsewhere, with a few in flower, are cattleya hybrids, coelogynes, dendrobiums, earinas (New Zealand epiphytes), epicattleyas, epidendrums, laelias, odontoglossums, oncidiums, paphiopedilums, pleiones and zygopetalums. There are also small numbers of miltonias, miltoniopsis, odontiodas, sarcochilus and stanhopeas.

But while gorse is not a problem, nor slugs and snails, people are. None of the orchids is labelled. Those that have been are promptly stolen. The public apparently does not want to steal unidentified plants!

While many orchids need tender, loving care (in a heated? glasshouse), Te Puna Quarry Park shows just how well many orchid genera will adapt to conditions that are considerably tougher than the average subtropical garden – no one to water, no one to feed, no one to spray.

More gardeners are not only growing their orchids outdoors but are doing so epiphytically, and some are experimenting with growing them on rocks (or other hard surfaces). There is virtually no time of year that an orchid cannot be found in flower. Those that need a dry, resting period in our wet season will obviously be a problem. But remember – many orchids are fragrant, which adds to the delight.

Marjorie Lowe **Photos: Grant Bayley**



WINTER PHOTO COMPETITION

And the winners are: Jon & Jenny Uffindell of Kamo, Whangarei.

Taken in early winter (4th June) on a brilliantly sunny day, which made good results difficult, these photos show some of the range of plants in the Uffindell's garden.

Top left:
Euphorbia pulcherrima (Poinsettia) with, behind, two young *Anthocleista grandiflora* (Forest Fever Tree)

Top right:
In the background, two *Archontophoenix alexandrae* palms. Below them, a very large clump of *Kohleria eriantha* (for further information see pages 26 and 27). In the foreground, two young plants of *Alcantarea imperialis* in square clay pots. This plant is still being sold by some nurseries under its old name of *Vriesea imperialis*.

Bottom left:
The large palm trunks are *Archontophoenix cunninghamiana* and the smaller palms in front, from left to right, are *Linospadix monostachia* (Walking Stick Palm) and *Phoenix roebelinii* (Pigmy Date Palm). The thin, triple trunks between these two palms belong to a *Dracaena marginata*. The ground at the base of the palms is completely covered with bromeliads (including neoregelias in colour) echeverias and a clump of *Tradescantia* (syn. *Rhoeo*) *spathacea*. (How do they keep the slugs and snails from shredding these plants in winter?) On the wooden deck, a pottery bowl has floating, bright pink impatiens flowers.

Bottom right:
A mixed planting with, top left, *Chimonobambusa falcata* (syn. *Bambusa gracilis*) Fairy Bamboo. Next to it, a fine *Musa velutina* - very colourful with its pink flower heads and bunches of pink bananas. Below this, a clump of *Justicia carnea* has a solitary, late, matching pink flower. At bottom left, a clump of the everblooming *Begonia haageana* (syn. *scharffii*) with handsome green leaves with wine reverse. The pink striped leaves on the three stems of *Cordyline* Celestial Dawn continue the colour scheme and are accentuated by the winy-red leaves of *Iresine herbstii* at their base.

Two further photos showed a 2-2.5m, two year old *Musa zebrina* (Blood Banana) in one and, in the other, *Heliconia spica, Cordyline* Red Fountain and a *Syngonium* species looking very vigorous as a grouncover.

●One of our members sent in a stunning photograph of a potted plant that to the best of our knowledge cannot be grown outside satisfactorily in New Zealand, even in the far north. Remember, **SUBTROPICALS** is about gardening in the milder parts of the country.

LETTER

In reply to Keith Boyer's letter to the editor, I found his comments both upsetting and inaccurate. New Zealand did have a coconut, albeit with walnut sized seeds.

There is plenty of information in literature to verify that. An article, **"New Zealand's Other Palm"** written by Charles Devonshire, appeared in the October 1985 magazine of the Palm & Cycad Society of New Zealand (edited by Keith Boyer). In it, Devonshire refers to our native *Cocos zeylandica* as a miniature coconut.

The word COCONUT does not belong to the "tropical" coconut alone. There are many other related species, which are also referred to as "coconut" or different language versions thereof. Common names are not linked to botanical descriptions, further, they can be changed. "COCO" in fact translates from Portuguese as "Monkey Face", referring to the similarity of the three eyes of the coconut. Any coconut-like palm seeds could be compared to a monkey face. Even palm seeds not remotely related to the coconut are known to be referred to as "coco". Coco de Mer (*Lodoicea maldivica*) is a typical example. The Chilean Wine Palm (*Jubaea chilensis*) is referred to in Chile as "Coquito" or little coconut. Similarly, with the Cococumbe of Ecuador (*Parajubaea cocoides*), the first part of the name can be translated as "Monkey Face". Cumbe has an obscure meaning in the Quechua or Inca languages.

So, yes, we can call the Ecuadorian Cococumbe "Little Coconut" or, more conveniently, "Mountain Coconut" in reference to the locality from which it originates.

The question of whether *Syagrus romanzoffianum* is more closely related to the coconut than *Parajubaea cocoides* is not an issue. The similarities of the seed in the case of *Cocos zeylandica* and *Parajubaea cocoides* are striking. This is not so with *Syagrus*.

Dick Endt (Subject now closed -Editor)

PLANT SOURCES for this issue

Aechmea fasciata and hybrids & cultivars – most bromeliad specialists
Ae. gamosepala – ditto
Ae. recurvata – varieties and hybrids – ditto
Ae. Suenios – a few pups Ph. (09) 376-6874
Alcantarea imperialis – most bromeliad specialists
Aloe plicatilis – Coromandel Cactus, Landsendt, succulent specialists
Anthocleista grandiflora – available irregularly
Begonia haageana (*scharffii*) – usually cuttings from friends
Ceiba speciosa – subtropical specialists
Clivia hybrids – Joy Nurseries,
Clivia caulescens – Wharepuke, Kerikeri
Clivia gardenii - Wharepuke
Cycas revoluta – palm specialists, generally available
Cymbidiums – everywhere at this time of year
Dendroclamus latiflorus (Sweet Bamboo) – Isaachsen's Bamboo Nursery
Dracaena marginata – generally available in houseplant section
Drepanostyum falcata (*Bambusa gracilis*) Fairy Bamboo– Isaachsen's Bamboo Nurseries, Wharepuke
Farfugium tussilaginea hybrids – perennial specialists
Kohleria eriantha - Wharepuke
Linospadix monostachia – Muddy Thumbs, Henderson Valley
Musa velutina – Landsendt, Wharepuke
Niphidium crassifolium – Landsendt
Sarracenia hybrids – Joy Nurseries, Pukekohe, Wharepuke, Kerikeri, carnivorous plants specialists
Tabebuia chrysothricha – Wharepuke, Kerikeri

Needed

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All these so that our sources list can provide contacts for the Northland, Auckland, Bay of Plenty and Taranaki areas. And anywhere else

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BOOK REVIEW

Brugmansia and *Datura*: angel's trumpets and thorn apples.
Ulrike and Hans-Georg Preissel.

Being educated in New Zealand means that generally you have to make a choice between studying languages or science and so, apart from rudimentary French and self-taught Spanish, I have no foreign language skills. Imagine my frustration when a friend showed me a beautiful book he'd just acquired about *Brugmansia*, all in German (which he couldn't read either!) It had beautiful pictures and, armed with a minute pocket dictionary, we pored over it, working out the simpler words. We were enchanted by the range of colours grown in Germany and by the different species available. We were going to import some, but the exorbitant costs of complying with the requirements of the Biosecurity Act made that impossible.

Now we don't have to struggle, as David Bateman has commissioned a translation and published a book even more enticing than the original. This is a brave move in a country where people seem paranoid about the poisons within the plants, yet forget that many of our favourite garden plants are equally poisonous – oleanders, rhododendrons, daphne and many more. However there is a publisher's disclaimer: "Readers and those using the information contained herein must exercise independent care and judgement and assume full responsibility". No doubt necessary, but the chapter on their medicinal and spiritual uses by the various Indian tribes certainly does not make me want to try them.

Besides a historical review of the two genera, which clearly explains how Datura came to be separated from Brugmansia, and a chapter outlining the differences between them, there are chapters on the species and hybrids of Brugmansia and how to grow them (with particular emphasis on pot culture, as that is how they have to be grown in Germany). Pests and diseases, propagation, and building a collection of Brugmansia are also covered. This doesn't take into account the breeding work being done in America but, none the less, there are many stunning hybrids mentioned that have yet to appear in New Zealand. Given the costs mentioned above, they are unlikely to be imported, so perhaps we should be doing more to create our own hybrids with the species and hybrids already here.

The final chapters are devoted to Datura and follow a similar pattern to those on Brugmansia, including a key to the various species and forms. There are fewer desirable species and some are regarded as weeds, but moonflowers (*D. inoxia*) and the lush double forms of *D. metel* are worth including in any garden.

The book is beautifully presented: sumptuous full page photographs (my personal favourite is *B. versicolor* hybrid *f. plena* 'Herrenhauser Garten' which has three tiers of rich dark orange petals), many smaller photos, clear line drawings and tables which help clarify various topics. In all, a book to inspire one to grow more of these plants and experiment with breeding more hybrids for New Zealand gardens. Oh yes, I should also say that it is very reasonably priced at $39.95 or thereabouts.

Rosemary Steele

Publisher: David Bateman 2001

COMING EVENTS

SEPTEMBER 1ST
Auckland Regional Botanic Gardens – Garden Discovery Programme. 11am-1pm – Subject – The native garden. No bookings required (cost $8.00) Plant sales. For further information ring (09) 267-1457

SEPTEMBER 3RD
Palm & Cycad Society of New Zealand
Monthly meeting at Auckland College of Education, Epsom Avenue at 7:30pm in lecture theatre F1. For further information ring (09) 296-7699

OCTOBER 6TH
Auckland Regional Botanic Gardens – Garden Discovery Programme. 11am-1pm – Subject – The potager garden. No bookings required (cost $8.00) Plant sales. For further information – (09) 296-7699

OCTOBER 12TH, 13TH
New Zealand Clivia Exhibition
9am-4pm at the Auckland Regional Botanic Gardens. Entry fee $2.00. Workshops, talks, demonstrations and plants for sale.
For further information – (09) 833-5490

OCTOBER 25TH to NOVEMBER 3RD
Taranaki Rhododendron Festival
Garden visits, lectures and much more.
For further information 0800-80.90.50 or
info@newplymouth.govt.nz or www.rhodo.co.nz

NOVEMBER 20TH – 24TH
Ellerslie Flower Show
Daily at the Auckland Regional Botanic Gardens.
For further information (09) 309-7875

BACK COVER STORY

Cycas revoluta — Sago Palm

To the cycad collector, *Cycas revoluta* may be rather 'old hat' but, to the novice, a well-grown plant like the one opposite is a handsome sight. *C. revoluta* is one of the hardiest and probably the most widely grown cycad in the world.

Native (and endemic) to the Japanese Ryukyu Islands and to Satsuma and Mitsuhama Ito Islands, south of Kyushu, the area is subtropical with very heavy rainfall. It is also commonly grown in the tropics.

Because of its palm-like appearance and the slow growth of a solitary trunk to about two to three metres in height, *C. revoluta* is a popular feature plant in smaller gardens. Suckers can develop at the base and offsets on the trunk. If undisturbed, they will develop into new stems and the plant eventually forms into a large clump.

For best appearance this cycad requires bright light to full sun, plenty of water with fast drainage and humus-rich, acid soil. It will tolerate moderate frost. The attractive feathery leaves have very defined midribs and are produced in flushes.

The photograph opposite and on the back cover shows a healthy, approximately twelve-year old specimen growing in a Westmere garden. The leaf span is about two metres across and the flush of new leaves is most striking. It is repeated over the warmer months. In mild conditions *C. revoluta* may produce three to four flushes a year, but in cooler climates only one or possibly two flushes may occur.

The palm-like appearance is deceptive as it is related to the conifers and is a primitive, cone-bearing plant. Both male and female forms are required to produce seed, which is the usual form of propagation.

Errors, omissions & other disasters!

Autumn issue

10 – *Alocasia coriaceum* should be *Anthurium coriaceum*

13 – *Mandevilla* Alice du Pont was formerly *Dipladenia* Alice du Pont

19, 23 – should be *Dombeya cacuminum*

23 – bottom line ... "we called in at Lake Ngatu Plantations. This is primarily a wholesale nursery so don't go unless you're planning to buy on a large scale!"...missing line!

Also various typos etc.

Winter issue

6 – *Aloe vaombi* should be *Aloe vaombe*

29 – Top left is *P. alata* and Bottom right is *P. antioquiensis*

37 – *Soleirolia soleirollii* should be *S. soleirolii*

40 – Buddah is of course Buddha

Also various typos etc.