EPIFLORA

Volume 8 No.3

August 1999

EPIFLORA

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From the President

Winter, they tell us, is almost over and it's been a fairly mild one. Not so many weeks ago we were in Rotorua regretting the lack of snow on Ruapehu as we'd hoped to give an Indonesian visitor her first experience of it. Of course the week after we returned home there was heavy snow fall up that way but it hasn't happened often this winter. I've had a couple of plants collapse but on the whole most are looking pretty well even if there is little happening.

I re-read a couple of back Epifloras looking for inspiration for this letter and noticed that President's letters at this time of year (from two different presidents) contained comments about the fact that a few people seem to do most of the work in the Society. This year we deliberately decided to work with a smaller committee and have functioned without a designated secretary but, apart from a few minor hassles at the very beginning, it seems to have worked quite well. Isobel and Robyn with occasional help from others have seen that the normal secretarial jobs have been done. What we do need are new members - membership is pretty static. When I visited the Cactus and Succulent Society this month I was impressed with the number of new and enthusiastic young members they have. Of course they are a much larger group covering a much wider group of plants and that has both advantages and disadvantages. We probably neither expect nor want to reach anything like their numbers but we could do with some new members to give us new ideas.

Thanks to all for the work put into making the mid-winter function a success. The epiphytic hat competition was a success even if a few more of us could have made the effort. Hopefully the talk will have inspired all our amateur photographers so we will have a greater variety to choose from for future Epifloras.[1]

Betty we missed you at our midwinter function and at recent meetings but we appreciate the plants and cuttings you have sent and assure you of our love and concern.

Best wishes to you all

Alison Beeston.

[1] Hear Hear!!!! ***Ed.***

19th August 1999

The Programme for 1999

Meetings are at Johnsonville Union Church (Dr. Taylor Terrace) and start at 2.00 pm. Library books etc. are available at 1.30 pm.

September 11th	**Epiphytes on Stamps**
October 9th	**Origin of Epiphyllum hybrids**
November 13th	**Visits to collections**
December 11th	**AGM and Christmas function**

News About People:

Best wishes to **Betty Firth** we are thinking of both you and Dyson, Betty.

It was good to hear from **Mary Hardgrave** that their trip is going really well. We look forward to seeing her back soon - and hearing all the travellers tales.

Items for your Diary ..

October 1st - 2nd	Kapiti Horticultural Society Show -Kapiti Senior Citizens Centre, Ocean Road, Paraparaumu Beach.
November 13th - 14th	Hutt Valley Horticultural Show
November 19th - 21st	Epiphyllum and Hoya Convention in Auckland. (Make a week of it - the Ellerslie Flower Show is the following weekend!)

Epiphytic cacti in water culture..

We all know it rains a lot in Auckland. ***Grant Bayley*** *tells us how all this water may be turned to advantage...*

A number of months ago when visiting a neighbour who has a bit of all sorts in her garden I saw she had a piece of epiphyllum hybrid sitting in a glass on her window sill. I asked Carol what she was doing and she said she was rooting the cutting. I said that isn't the normal way to do it and she replied that she always did it this way.... She does it with her other plants like... well almost anything even her Rhododendron cuttings... On closer examination I noticed roots. Really can you imagine growing your cacti cuttings in water.. A good way to rot them out don't you think? So I tried it. Sure enough, I too got cuttings easily. Subsequently I came across some interesting information that I got in an old book I got at a second hand book shop. The book "Cactus Culture" by Franz Buxbam (translated by Vera Higgins) published in 1958 by Blandford...look up the photographs opposite page 41 in Franz's book.
It has some pictures of *Epiphyllum strictum* in water culture over two summer months (northern hemisphere July and August) and the phenomenal growth rate in this time was astounding. Also the book mentions about the plants preferring an acid soil of 5 - 6 pH. It also has examples of "Christmas Cactus" growing in water culture. Reference to the "*water culture method*" is on page 59 of this same book. I experimented to the extreme..... I put some epiphyllum hybrid cuttings in water to see what would happen. Please note that the month I did this was May. In Auckland I don't heat my home the same as I did when living further south. So subsequently the temperatures were - at night - cool to say the least. (my cat would either sleep in the hot water cupboard - or if I put the heater on would end up with frizzy whiskers!)
So the cuttings were pushed to extremes.. The cold, low light, tap water (low nutrition) are all the things that don't inspire a plant to grow vigorously! So it was necessary to keep an eye on these cuttings as I wanted not kill them! - as the original plant had been blown over in my shade house and many of the branches got broken.. It was going to be a pretty sight this summer but as the winter winds came, any potential flower branches were now smashed from their base!. You know.....a sad case when it's too late to stop the plant from "crunching" ker splat! and breaking growths! Well the rot? No... there were roots! It worked, so what next? ... I guess this explains why most of my plants have fared o.k over the winter months in the shade house. What with the quantity of rain we get and the few cold nights - several nights on odd occasions it got down to about 0°C...There are some

benefits living in Auckland!

What I have decided to try is keeping my plants wetter during the summer months and see what happens -Not sure of the consequences of this "water culture", but would be interested in anyone else's point of view.

Epi roots developing in water - Photo by Grant Bayley

An observation.....Fungi (rust type) on Epiphyllum Hybrids....

*This issue - **Grant Bayley** - continues one of the themes touched on in the last issue - nasty things that can happen to our plants*

I guess as with your plants my epiphyllums also suffer from the range of pests and diseases. One disease that intrigued me was one that formed scale like spots on my stems. I thought it was a scale and picked it off. It seemed to leave a big hole in the stem when I picked it out. I got my microscope out and thought it might be a funny sort of scale but I knew scale didn't do that! so kept observing what was happening and noticed that the spotting on my plants was occurring from (initially) one side, like the wind blowing eggs? or spores? from one side of the shade house to the other (at that stage I had a 5ft by 16ft shade house only and not many plants) I noticed that the spotting initially looked like water blisters and then they would develop a light brown spot in the middle. This brown spot looked like a rust forming.

So I tried some systemic pesticides that dealt to both insects and fungi. What I noticed was nothing over the first few days. I thought blast! and sprayed some more! and after a few days still nothing (hey I like things to happen instantly!) but then a couple of weeks went by and I noticed some of the spots had turned black and started sinking back into the stem of the plant as an indent, and also there seemed to be a halt in the amount of "infection" that was occurring. I carried on spraying at a frequent rate and I think it reduced the amount of flowering I would have had. (not sure if this is absolutely true though as I had nothing to use as a check) Some plants suddenly formed dead patches in them that I hadn't seen before.... Think the chemical/insecticide - fungicide had been a little excessive and was doing damage... (but again not completely sure)

Another thing that I observed was that epiphyllum hybrids tend to create a barrier to stop the disease from further spreading (see the photos) and then they heal themselves and carry on growing. This appears true with some rotting diseases (possibly the fungi diseases and not the bacteria that turns plants to mush) So I suspect that the fungi that was forming the blister - then the light brown spot in the middle of the blister, - was being "dealt with" by the plant, by forming a "barrier" to stop the mycelium spreading to the rest of the plant (a description of mycelium is they're like fungi roots spreading further into the internal structure of the plant). As mentioned earlier, my first encounter was the

scale like thing that I picked out of the phylloclade surface which is like a smaller version of the other type of fungal attack mentioned just above. I connected the two observations.....

This year I have less infection of this disease, but I'm not sure if it is because they have been exposed to the 'extra' rain this winter season that has washed a lot of the spores away or a result of my full on, 'over the top' spray programme last growing season... Note....I have more flower buds than I've ever had (mind you I have more plants than I've ever had!) so if there are no disasters then I'll invite people over to enjoy the flowers!

N.B. One of the disease killers I used was Yates '*Greenguard*'. I don't advocate using chemicals, but was getting desperate to solve this so resorted to what I knew....And would be interested in others solutions to this or similar problems

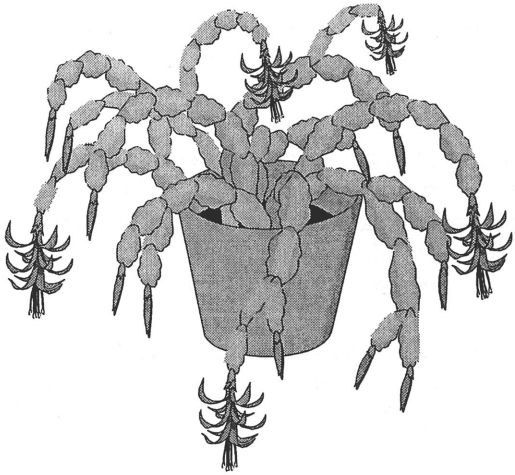
Care and Cultivation of Schlumbergeras.

Jenny Askwith *reports on the June Meeting at which Andrew Flower gave us a very entertaining talk on this subject, with the help of advice off the Internet, even though he does not grow them in huge quantities himself.*

(It is with some reluctance that I write this article as I found it difficult to take notes on Andrew's talk, but having visited the internet site that Andrew got most of his information from, will now attempt to summarise the main points! For those of you who have access to the Internet, the site is: www.umass.edu/umext/programs/agro/floriculture/floral_facts/cac1.htm. The information was found under "Holiday Cactus" as it is commonly known in the USA)

NOTE: All time periods have been converted to New Zealand times hence "Thanksgiving Cactus" will flower in NZ approximately in May and "Christmas Cactus" in June.

Holiday Cactus is sometimes known as Christmas Cactus, Thanksgiving Cactus or Zygocactus. The "True" Christmas Cactus is an interspecific hybrid of *Schlumbergera truncata* and *Schlumbergera russelliana* that originated about 150 years ago in England. Plants have segments with rounded margins, ribbed ovaries, and purplish-brown anthers. The correct Latin name for Christmas Cactus is *Schlumbergera* **x** *buckleyi*; the "**x**"



indicates that it is an interspecific hybrid. Most commercial cultivars of holiday cactus are actually *Schlumbergera truncata*, commonly known as Thanksgiving Cactus or Zygocactus.

Thanksgiving Cactus has segments with conspicuous teeth on the margins, rounded ovaries with no ribs, and yellow anthers. Under natural photoperiods, Thanksgiving Cactus flowers about 4 to 6 weeks earlier than Christmas Cactus. Some cultivars of holiday cactus are derived from crossing Christmas Cactus and Thanksgiving Cactus, and have characteristics that are intermediate between the parents.

It is a native plant of Brazil. In their natural habitat these plants grow on trees in cracks and crevices, and therefore make very good hanging baskets.

Propagation: is by rooting mature single-segment cuttings. Cuttings should be removed from plants by twisting the segments 180^0 and pulling upwards. Collect cuttings in clean pathogen-free containers. They can be surface-disinfected by a five-minute dip in diluted bleach followed by a thorough rinsing in tap water. They can be stored up to three months at 10 – 15^0C and 90 – 95% humidity. Cuttings are best propagated between June and September

Growing medium: use one that is high in organic matter, well drained, and adjusted to a pH of 5.7 – 6.5. Use soil sterilised rooting material with the odd burst of fungicide.

Flowering: this is controlled by photoperiod (light) and temperature. In natural conditions this is initiated in March when the day length shortens i.e. it is the longer nights that trigger flowering, not the shorter days, and temperatures are around 10 – 15^0C.

Watering:. Frequency depends on environmental conditions, type of growing medium and plant establishment. Well established plants may need to be irrigated every 2-3 days in sunny warm weather or 5–8 days in cool, cloudy weather. In general they will tolerate under watering better than over watering.

Fertilising (Feeding): They have a relatively low nutritional requirement – use a very dilute fertiliser. One with Potassium and Calcium will harden up the segments and stops bud drop. (Bud drop may also occur if a plant has been moved into a different growing condition eg from outside to inside.)

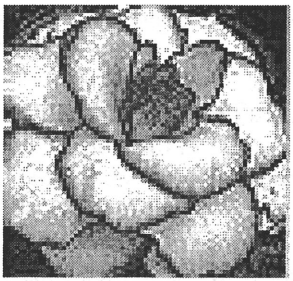
Diseases and Pests: In New Zealand these plants tend to have very few diseases.

Root mealybugs can harm the plants. They are small insects that infest the roots. It is the larvae that feed on the roots, not the adults. They can be drenched with a pesticide such as Orthene although prevention is the best method of control – discarding infested plants.

During the summer, when plants are outside care must be taken to ensure slugs and snails do not eat the plants.

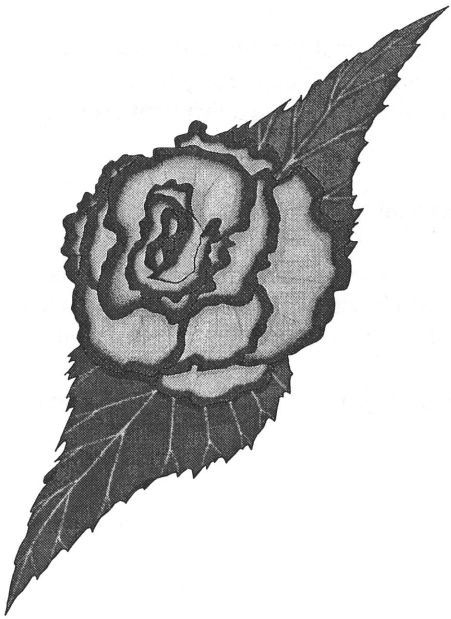
About Begonias...

*At the August meeting **Mike Wilton** from the Botanic Gardens came to talk to us*
***Penny Luckens** reports.....*



Mike, who is involved with the Begonia House at the Botanic Gardens, remarked that although we were a specialist society, he was sure we did not grow epiphyllums and hoyas to the exclusion of other plants. Tuberous begonias and cool growing orchids will happily share the same growing area..

In New Zealand the term "begonias" usually refers to the tuberous rooted begonias with their showy flowers. These plants "parents" originated high on the eastern Andean slopes of Colombia, Bolivia and Peru .They were introduced into Europe in 1860 where they grew easily, and produced bright and colourful flowers. European growers, particularly French and Belgian, crossed many of the available plants to produce new hybrids.



The original plants had small two-petalled flowers. By the 1880's double-flowered hybrids had been developed and this increased their popularity, and led to increased hybridization in England and Scotland.

Tuberous begonias require cool growing conditions and are only grown successfully in southeast Australia and Tasmania, the pacific Northwest in America, UK and NZ. They prefer temperatures close to 20°C and at 25°C and above the plants become weak and spindly and the flowers small.

Flowering is controlled by the length and strength of light. Artificial light in the evenings will extend the growing season unnaturally and defer dormancy in autumn, but can be useful in spring to encourage early vigorous growth.

August to September is the time to buy tubers. The so-called named varieties in the shops are usually seed grown from selectively bred plants. They will be similar to, but not necessarily identical to, their pictures. True named varieties are grown from cuttings and are more expensive. Plant each tuber in a small pot and keep it on a windowsill with light at night to encourage early growth and produce the first flowers in November. Those not given extra light will flower about Christmas.

If more than one shoot grows from the tuber leave the strongest one and remove the rest when about 5cm high (or with three leaves) for cuttings. Leave the cuttings on the bench for an hour or two then plant in seedraising mix which contains fungicides in a small pot or root in water.

Once the main shoot is 7cm (3") high repot into a six litre pot with the pointed ends of leaves to the front of the pot and a sturdy 60 cm (2') stake behind the tuber. Cover the tuber with 1cm of mix so roots can grow from its entire surface. Put in the shade house or on the south side of the house where it will get morning sun. Outside is best as the temperatures are cooler and the light is brighter. Use shrub or pot and patio mix with long-term fertiliser. Plants need plenty of water while growing and will flower for three to four

months if kept cool. Individual flowers will last six to eight weeks. Stems should be tied firmly to the stake as plants snap off at the base very easily.

Late in the season the double flowers revert to singles and the leaves become yellow. At this stage, which is usually in late April or May, reduce the amount of water. Eventually all leaves will drop off. Bring the plants to dry shelter for the stems to drop off naturally and overwinter in their pots. They should not be watered. The tubers tend to shrivel if dug up. Repot the tubers when new growth starts in spring, remembering that big pots (and big stakes) will produce bigger flowers.

Hanging basket type begonias are planted 3 to 5 tubers to a basket. Some varieties have big tubers; *B. Boliviensis* has huge tubers.

Cuttings can be taken of side shoots until March, but the later they are taken the smaller the tubers formed before winter will be. Smaller tubers are more likely to shrivel over winter. The top growth should be left after flowering to wither naturally as it is during this time that the plant enlarges its tubers in preparation for winter and the next season's growth.

Plants which have had too much light and water in the winter, so they have not died down naturally, and also the non-stop bedding types need to have their tips pruned back hard. Repot when new growth comes away.

Tuberous begonias can be grown from seed. This is fine and dust-like and needs to be sown on the surface of sterile mix. Mike told the tale of a Levin grower who sneezed when he had just opened a packet of special seed. The seedlings appeared all over his greenhouse floor but none grew in the special mix. Others have thrown the seed away thinking it was only dust.
Named varieties are best propagated from cuttings. Tubers can be divided if care is taken that each piece has at least one eye and top, bottom and part of the side of the tuber. Cut cleanly, and allow to dry out for at least half an hour before planting.

Check tubers carefully when planting as vine weevils can eat them from the inside. The only other common problem pest is the cyclamen mite. This stunts leaves, distorts growth (leaving brown scars on the stems) and kills flower buds. It overwinters on cyclamen and is more likely to be a problem when both species are grown close together. The Botanic Garden staff use a predator mite to control it.

Most tuberous begonias are resistant to powdery mildew - a disease which the species and most foliage types, such as Rex begonias, are all too susceptible. Sprays for powdery mildew include Saprol and Strobey. *** DSIR now recommend a spray of olive oil (1 teaspoon per litre of water for powdery mildew.)

Sources of begonias (tuberous)

Seed: Blackmore and Langdon, Pensford, Bristol BS18 4JL, England

Tubers: Beautiful Begonias of Golden Bay, Rocklands Road, Clifton, Takaka via Nelson
ph: 03 5259058

Other references

Begonia News - bimonthly 20 page magazine; cost $10 per year;
produced by the Canterbury Begonia Circle;
contact: M Stevens, 47 Burnside Rd., Christchurch

"Begonias - The Care and Cultivation of Tuberous Varieties"; Brian Langdon,
get it from Wellington Public Library - 635.933468 LAN

The Big Cheese - or how to Photograph.....

*At our July meeting **John Cheese** - one of those whose photographs grace the pages of the NZ Gardener - came to speak. **Merv Keighley** is the reporter on this occasion ..*

July 10 was our mid-winter Pot Luck lunch. The fare was many and varied including Cheese - not Edam or Blue Vein but John. John Cheese is a photographer for the New Zealand Gardener (and a good one at that!). Just look at any copy of the magazine and you will see. He doesn't just take photos of flowers, gardens or plants, but of many other items that a commercial photographer would take, including - yes - cheese. He has had

assignments to produce photographs of cheeses for Kapiti Cheese. John has a great sense of humour. I was becoming concerned when he started talking about f22 this and f8 that, but he explained to the ignorant that ' f ' stops are the size of the hole that allows light through the lens of the camera on to the film to create an image of what is being photographed. The higher the number, the smaller the hole - that is the less light getting through to the film at a given time of exposure. eg. f8 at 1/60th of a second. Many variants come into play when taking a photo, including speed of the film, type of film, type of camera, subject to be photographed, light (or lack-there-of) plus many more. It's a wonder that any photos are taken when all these things are considered. John even did a Mary Poppins act with a white umbrella. He uses this to diffuse direct sunlight (and to keep off the rain!). He also uses special reflectors to redirect light to a part of the subject that requires highlighting. Aluminium foil will do the trick just as well. John travels all over the place on assignments. He even builds his own sets when required, or when the subject isn't as good as was first envisaged. A very interesting and informative talk, given with obvious knowledge and experience and involving the audience by answering questions. Thank you John Cheese.

The Convention

In Auckland

19th, 20th and 21st November 1999,

Cost is **$50**

We've got some interesting field trips planned around Auckland by bus,

a photo competition, raffles, sales table, talks, fun, and the opportunity to

renew friendships and acquaintances and make new friends!

Just think....

if you stay a few days extra you could enjoy the Ellerslie Flower Show too or maybe the odd Yacht race .....

for further information contact

Betty Gross, P.O. Box 17159 Greenlane

Auckland. (09) 520 - 2826

or if you need to email, contact Grant Bayley

<grant.bayley@clear.net.nz>

Wellington Epiphyllum and Hoya Society

Annual General Meeting

to be held on

Saturday December 11th. 1999

Business includes election of Committee for 2000

This is your society - so mark this date in your diary - and come and have your say.

C. Ampliata -

C. Stapeliformis

Two Ceropegias

***Merv Keighley** writes about two of the plants from his collection*

Ceropegia ampliata E.Mey. *C.ampliata* is so named because of the generous proportions of the corolla tube which is among the broadest in the genus. It has rudimentary leaves which quickly fall off. The flowers develop in succession. A large plant covered with flowers is a sight to behold. The distribution of *C.ampliata* is now known to occur more or less continuously from the southern Cape, into Natal, northwards into Zululand and Transvaal and into tropical Africa and Madagascar (with varietal and subspecific names). *C. ampliata* is easy to grow here in Wellington. I have a large specimen growing in a covered lean-to with the eastern and northern walls open to all weathers. It flowers prolifically. Propagation is simple from cuttings.

Ceropegia stapeliiformis Haw. *C. stapeliiformis* is so named because its stem growth resembles some of the Stapelieae species. Again the leaves are rudimentary and soon fall leaving the stem bare. The flowers appear in succession from short flowering branches. In the wild the plants are usually associated with scrub bush. There are two sub-species - *subsp. stapeliiformis* and *subsp. serpentina. C. stapeliiformis* is reasonably easy to grow here in Wellington. Propagation is from cuttings which sometimes take a long time to root. Layering is a simple way to multiply.

Odd Cuttings and Seeds

Cactus Calendars

A number of us over the years have been getting the magnificent calendars featuring pictures of cacti in habitat. This year we learned there are to be no more of them. For those who cannot live without spiney pictures on their wall - there is an alternative They can be ordered from the following the web site
http://www.browntrout.com:8080/key/cals/2000/gen/pla/0763116890.html

Frances Verrity reports that she found the 1999 edition of this calendar in a local calendar shop - so keep your eyes open.

Myron Kymnach has books for sale

Myron wrote recently..."After 16 years of selling books on succulents I've decided to phase out the business. (At my age, time is more important than money.) On my web-page (www.cactus-mall.com/kimnach/index.html) I've just listed a large selection of the books at much-reduced prices, which in most cases are about what I paid for them. This includes new copies of books by Rowley, Rauh, Pilbeam, Bravo, Lindsay, Preston-Mafham, as well as all the volumes of the Euphorbia Journal".

Snail wars..

This is a problem for which almost everyone has a different solution - here is another person's way to deal with the problem..

"With all this rainy weather slugs and snails are bound to come out. I try not to use a lot of poisons, like snail bait. Instead I put out a container of beer, it should be deep enough for slugs and snails to climb in but not out. They love it, and will climb right in and drown. They even like the non-alcohol varieties".

to which there was this rejoinder ..

"My wife has used this technique with great success for many years, but she has found different levels of success with different types of beer. The non-alcoholics are usually less successful than those with alcohol, and it often seems that the cheaper brands are best - perhaps something to do with preservatives or other additives. We're catching lots with Steinlager at the moment, which happened to be on special offer; I always thought New Zealand beer had to be good for something! The previous couple of nights with an alcohol-free beer we didn't catch any. The message is that if this method doesn't seem to be effective for you, try a different brand or home-brew."

And finally (for this time anyway) another approach

"Try to get hold of Aluminium Sulphate from your local garden centre - it is natural and non toxic to other insects and animals. Simply add half a cup to a watering can (2.5 gallons) of luke warm water and using a spray bar on the can, water it into the ground around your garden even the lawn. It does not kill them but causes them great irritation but it does kill the eggs in the ground.

You do not need to use beer either get some brewers yeast add to warm water in a large bottle (do not put the top on or you will blow the bottle up). Add a teaspoonful of sugar and after a few hours it will be foaming. Shake the bottle to mix everything up. Half fill plastic coffee cups and sink them into the ground round the garden. The next morning you empty them out and do whatever you want with the slugs/snails. I put them into a bucket and pour a kettle of boiling water into them, leave it to cool down tip them onto the bird table, the birds love them".

Future Publication Dates..

EPIFLORA is published quarterly by the Wellington Epiphyllum and Hoya Society.

Comments and contributions are most welcome.

The society aims to encourage discussion and debate; opinions expressed are those of the authors and do not necessarily represent those of the society. It is the policy of the society to publish corrections of fact but not to comment on matters of opinion expressed in other publications.

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WAIKANAE.

Or: griffith@globe.co.nz

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Winter 2000 Edition - 13th May

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(overseas members $NZ16.00 or $US12.00)

Additional Associate Members - $4.00