Orchids IN NEW ZEALAND



Volume 13 — No. 4 July/August 1987

Norm Porter Orchids

* CYMBIDIUMS

Now in Flower, available from Nursery or sent anywhere in New Zealand by Newmans Bus - Depot to Door Service ... \$20-\$30 each

Seedling Flasks - Wide selection including Mini and Standards to suit the hobbyist and commercial grower. Parents used include:

Sue, various 4N clones Pink Peach, 4N Vanguard 'Mas Beauty' Winter Fair 'Nancy' Mighty Mouse 'Minnie' Tamatea 'Tahi' Red Beauty 'Carmen' Rincon 'Clarisse' 4N James Wattie 4N Babylon 'Castle Hill' Coraki 'Margaret' Fred Stewart, etc.

Flasks contain 45 plants ... \$60 each

Back Bulb Propagations. A very comprehensive selection

...\$6-\$30 each

Plants - Seedlings and Mericlones in a wide range of colour and flowering times

...\$3-\$20 each

CYMBIDIUM AND PAPHIOPEDILUM

Community Pots - 10 seedlings or 5 mericlones for \$22.

PAPHIOPEDILUM FLASKS

Both Primary and Modern Hybrids, Flasks contain 30 plants

\$75 each

* IN SEASON: CATTLEYA, PHALAENOPSIS AND PAPHIOPEDILUM PLANTS IN FLOWER \$15-\$40 each

ALSO - Zygopetalum and Dendrobium plants.

List Now Available

All prices include GST.

Send to:

NORM PORTER

"CYMBIDIUM ORCHID SPECIALIST"

Nursery - 23 Parata Street, Waikanae (Parata Street is opposite Woolworths)

Phone (058) 36-977

Hours: Tuesday-Saturday 9.00 a.m.-5.00 p.m.

During the flowering season, May-November, the Nursery is Open Sundays and Public Holidays

O.C.N.Z. OFFICERS:

President:

MR A. EASTON (Rotorua O.S.)

Secretary:

MRS P. MARTIN 3 Morriss Place, Cambridge

Treasurer:

C/- MRS P. MARTIN 3 Morriss Place, Cambridge

EDITORS:

N. C. & E.M. MILLER Te Akau Road, R.D.4., Rotorua

All editorial and advertising material to be sent to the Editors.
Advertising rates available from the Editors.

SUBSCRIPTIONS:

Vol. 13, 1987 (6 issues) (including postage and GST): \$15.00

Subscriptions and all enquiries relating to subscriptions to:

Distribution Secretary:

MRS B. GODWIN P.O.Box 36-297 Northcote Auckland 9

Back Issues Secretary:

MRS G. ANDERSON 421 Pukehangi Road Rotorua

Opinions expressed by authors are not necessarily endorsed by the O.C.N.Z.

The O.C.N.Z. does not assume responsibility for any transactions between readers and advertisers.

Printed by W. J. Deed Printing Ltd 9 Martyn Street, Waiuku Phone (085) 59-630

Orchids

IN NEW ZEALAND

incorporating 'The New Zealand Orchid Review'

OFFICIAL PUBLICATION OF

ORCHID COUNCIL OF NEW ZEALAND NEW ZEALAND ORCHID SOCIETY

VOL. 13, No. 4

JULY/AUGUST 1987

CONTENTS

Editorial	86
Is there a Need for Competitive Shows? - D. K. Bell	87
Yes, I've got a few Orchids Bob McCulloch	88
An Orchid Display in January	89
12th W.O.C. Tokyo-Artist's Forum – Erica Cowdell	91
Pukekura Corner-Of Mugs and Disa – G. Fuller	92
Memories of Australia and the Adelaide Show -	
John Hanna	96
12th W.O.C. Conference Exhibition, Tokyo,	
March 1987-The Greatest Show on Earth? —	
Alan Paterson-Kane	98
13th W.O.C. Newsletter. No. 4	104
Orchid Growing with Hydroponics – Eion Scarrow	105
Pests of Orchids - 4. Scale Insects - G. M. Barker	106
Show Suggestions - Judges' Stewards - Duties, etc	
Des Leahy	108
Richard Laishley (1815-1897) – Ian St. George	111
Obituary, Winston Larson	112
Slab Culture – Graeme Burr	112

ILLUSTRATIONS

Disa Veitchii	95
Displays at the 12th W.O.C., Tokyo 99,100,101	
Oleander Scale	
A page from Laishley's Notes and Drawings	110

FRONT COVER

Paphiopedilum Songbird x Millmore.

Growers: Bob & Beryl Goodger

Photography: Bob Goodger

BACK COVER

Bulbophyllum tuberculatum.

Photography: Bob Goodger.

EDITORIAL CONSERVE OR PERISH!

Two items in this issue of 'Orchids In New Zealand' attest to the growing interest in viewing our native orchid species growing in their natural habitats. Organisers of such excursions are generally careful not to encourage indiscriminate collecting of plants that are unlikely to survive long in cultivation.

On occasion an orchid habitat may be doomed to 'development' and in this case collecting is justifiable. It would be fair to say that collection of plants poses far less danger to our native species than does destruction of their habitats. This situation generally applies worldwide. In fact, destruction of habitat, particularly rainforests, is now so appalling that it is estimated that, worldwide, one plant or animal species becomes extinct every hour. By the end of the century (13 years away) this rate is expected to rise to one species every 15 minutes.

Although there is little we can do to avert the tragedy occurring in Amazonas, South East Asia, Africa, at least we can be alert to happenings here in New Zealand. We urge all our readers to keep a watchful eye on all those untouched corners they know of, where little orchids or other treasures may still flourish.

In particular, the massive redistribution (maldistribution?) of land between the new state-owned enterprises is cause for much concern. It is hard to be convinced that commercially oriented Land corp or Forest corp will take the same approach that the Department of Conservation would, yet at the moment large tracts of land that deserve to be in the care of D.O.C. are in fact passing into other hands. Be vigilant, for the sake of our future.

NEWS RELEASE

The Kaitaia Orchid Society presents its 1st Annual Native Field-days, 7-8 November 1987.

With assistance from local N.O.G. members, BRIAN MOLLOY will lead guided field trips on both days.

Saturday will be spent at Kaimaumau swamp, north of Kaitaia, viewing *Calochilus campestris* and the many other species known from there.

Ahipara Gumfields wilderness will be Sunday morning's venue. There are large numbers of terrestrial species here and there are spectacular views of Ninety Mile Beach and the coast.

Social on Saturday evening at Forest nursery. Smorgasbord (BYO) provided together with a slide show and address by Brian Molloy. Apart from a small charge for Smorgasbord there will be no charge for the weekend.

Evervone welcome.

For more details contact: D. McCRAE

Paranui, R.D.3., Kaitaia. Phone 509 Peria

Is there a Need for Competitive Shows?

Perhaps the main object of many orchid societies in New Zealand, together with that of many overseas organisations, is to 'promote and encourage the growth and development of Orchids, both to the general public and society members alike'.

It is with that objective in mind, together with the consideration of giving orchid growers the recognition they deserve, that the Waikato Orchid Society Inc., have extended their Annual Spring Show to involve Sponsorship and major prize monies to category winners. Many years of development in breeding, culture and growing experience are required to produce top quality orchids and this can often go unnoticed by both orchid growers and the public. Providing a spectacle such as an exciting show, combining orchids, cut flowers, floral art and posie bowls, etc., it produces an excellent platform for presenting orchids to the world.

Competitive shows have also been criticised by many orchid growers in New Zealand and this aspect was given full consideration before establishing the format of the show and providing the large cash prizes that are now available.

These factors did not outweigh the fact that competitive shows and displays provide and foster orchids of a far higher standard and quality. It is important to encourage and expand the knowledge of orchid growers and public alike as to the standards necessary whereby orchids displayed in New Zealand are comparable with the standards achieved overseas. It is also gratifying to receive comments from the public, about the standards of quality, the ability to compare orchid plants, bloom to bloom, and being able to understand why individual plants are awarded or have won prizes in each class.

Guest judges from overseas attend our Show each year because of the standard of displays and blooms exhibited and their presence not only gives the Waikato Spring Show an international flavour but is also rewarding to those who participate and exhibit, with the possibility of recognition of their orchids by international judges.

We are now finding each year that the standards set in the Waikato are discussed, and reported on the world orchid scene.

The guest at this years Show is George Vasquez of Zuma Canyon Orchids, a world leader in phalaenopsis orchid growing and breeding. George has expressed a desire to visit us here and his presence at our Spring Show and Banquet will indeed be a feature of that weekend.

Commercial interests should also be given the opportunity to exhibit at shows, as well as having the opportunity to sell plants and blooms to orchid hobbyists and the public.

With New Zealand hosting the 13th World Orchid Conference in Auckland in 1990, commitment of all orchid growers and exhibitors to participate and extend their knowledge and to share and educate the public of the host country is vital.

Orchid shows are open to any grower and it is the intention of the 'Waikato Orchid Society' and 'General Finance Orchids '87' to promote orchid growing and encourage growers towards the quality and

continued overleaf ►

Yes, I've Got a few Orchids . . .

Bob McCulloch

During the time I have been growing orchids, my growing arrangements have been radically altered and improved on average once a year.

Recently there has been a slow-down in these changes, partly because the conditions are about right, and partly because there is no more room, and the next step is to cover over the whole backyard.

My first glasshouse was an Eden 812, which is 8'0" wide and 12'0" long. This was bought with the stated intention of growing tomatoes and other veges to feed my family, but we all knew that really it would finish up with orchids growing in it, and the veges in the garden where they belong. After moving it a few times, an 810 extension was bought. Well, the original one was full, you see. The two glasshouses were joined together to form a unit 22'0" long and 8'0" wide, divided into a small warm section and a larger intermediate section. Things remained that way for almost a year, and then a shade house was built to keep Cymbidiums in during the summer.

That turned out to be a bad idea, so the shadehouse and the glasshouse swapped places the following spring, and have stayed that way. As electricity prices increased, the temperatures were reduced, and there is now a small intermediate house, a larger cool house, and a 12'0" x 12'0" shadehouse where those Cymbidiums that aren't smart enough to flower can spend all year.

The original collection of all Cymbidiums has also changed; there are fewer, and there are more minis than before. There is also a wider range of flowering times, and it is safe to say that there is not a month in the year when there isn't a Cymbidium either in flower or in spike.

Almost every type of available orchid has been tried, and the survivors are Paphs, Odonts,

Cattleyas, Oncidiums, Dendrobiums, Lycastes, Zygopetalums and Coelogyne. These are all moved out of the glasshouses as the weather warms up, and back again as it cools down in autumn. The smaller plants stay in the glasshouse all year on hot beds which are thermostatically controlled, and are liberally watered during the summer months, and not so much the rest of the year.

This is a hobby grower's set-up, and any plant that wants to grow here will have to put up with a bit of neglect now and again, and overhead watering all the time. There just isn't time for individual watering, and if a plant can't accept this, then it will either finish up on the compost heap or on the sales table (depending on whether it is dead of alive, of course.).

These conditions tend to favour certain genera, and it seems likely that with the ever increasing cost of power the cooler growing types will take over, a sort of un-natural selection process if you like! There is plenty of variety and it is hard to see boredom setting in, what with the cooler growing mini-catts, and Disas appearing, and all sorts of new things just around the corner.

18 Davis Crescent Upper Hutt

continued from previous page

presentation that they should have here in New Zealand.

May all orchid lovers consider participating in developing and promoting orchids through professional displays and quality orchid showing.

D. K. Bell Show Marshal Waikato Orchid Society Inc.

AN ORCHID DISPLAY IN JANUARY

For several years now the Taranaki Orchid Society has participated in the Summer Entertainments Programme organised by the New Plymouth City Council Parks and Recreation Department, by staging a public display of Orchids in the Pukekura Park Cricket Pavilion in early January. Since this is the time of the year when few groups meet, it has featured orchids not often seen on display and this has heightened its popularity, coupled with the fact that there are usually a range of other very interesting activities occuring in New Plymouth at the same time.

This summer, a problem arose because there was no weekend free of sporting fixtures and the idea was shelved until, at quite short notice, a change in the cricket draw left the pavilion free for the weekend of the 10th and 11th January and the opportunity was seized to stage a display.

By the time the doors opened to the public (who are invited to view the display free of charge!), no less than 286 plants covering an extremely wide range of genera from Oncidiums as large as bushes to microscopic Masdevallias had been assembled.

Equally as exciting as the plants, however, were the enthusiastic visitors who not only travelled from as far afield as Auckland, Wellington and Tauranga, but brought with them some superb flowering orchids. Taranaki has gained a reputation for growing disas which of course are at their best in January but the locals ducked for cover when some of the most magnificent specimens turned up in vehicles from Tauranga. It so happened that they gained such admiration that their owners were able to coerce release of some types not as vet seen elsewhere in New Zealand. The condition was that they return with them in flower next summer, so that alone has set the seal on next years display.

Because of the short notice, most visitors came as the consequence of personal contacts and this had the outcome of the event passing off as the nearest thing to a masdevallia convention for it is unlikely that over

70 plants of this group have ever been displayed together in New Zealand before. Like the disas and other orchids, many were brought very long distances by dedicated owners.

Without doubt the gathering together of such a wonderful range of plants ensured the success of the visual side of the event and set the stage for exchange of ideas and experiences between participants. There was ample time to chat over the two days but the hosts had prepared a varied programme of events and visits which ensured that even participants not deeply involved with orchids had fun such as when the whole party travelled from the lower end of Pukekura Park up towards the orchid growing houses at Brooklands Nursery, by means of the rowing boats on the lake. On still evenings the screams of President Eunice can still be heard reverberating over the lake.

Just before this, George Fuller, Curator of the Park had performed a highly entertaining act by getting himself, and the group he was guiding, locked in the display house compound during the lunch hour. Nobody was quite able to catch the gist of his comments as he scaled the high security fence on his way to the office to pick up keys to release the rest of the party, but he was certainly rather red-faced over the matter.

That red face was soon to undergo a dramatic transformation. The route from the top end of the lake involved a short walk through the Bowl of Brooklands where a 'country day' was in progress complete with shearing, sheep mustering, country bands, etc. For the children there were young ladies offering to paint faces and George did not require very much enticing. From that point on he was transformed into a bilious green apparition which was supposed to resemble a frog but which in fact looked more like a Lycaste locusta bloom that had just been trampled underfoot.

By the time the group reached the nursery to see the orchid collection the day had turned into a real scorcher and even the Bay of Plenty faithfuls were diving for shade. Nobody had expected this sort of weather in Taranaki and even the locals appeared somewhat bewildered. The recent reroofing of a house containing disas had transformed it into a raging inferno which sent not only the disas but also the visitors into a state of shock. The disas have probably recovered but it is unlikely that the same applies for the stalwarts from the Bay of Plenty who yearned to get back to a cooler climate.

The wide range of plants in the orchid houses aroused considerable interest and then it was realised that Ron Maunder who was supposed to be driving the mini-bus up from the lower end of the Park to ferry the group on to the next visit, had not arrived. A short foray found him consorting with George Fuller's wife.

Back on the road and the visitors had a choice of interesting collections to visit before tidying up and joining a good representation of local members at the home of Kath Bruce for a potluck-tea of impressive proportion. A great time was had by all in perfect weather, most eating outdoors. There was also an opportunity to view the wide range of orchids grown by Kath, and late husband Gordon. All this together made for a very pleasant and relaxed evening, rounded off with some non-orchidaceous stories from

certain persons, but come nightfall, more excitement was to follow.

New Plymouth now has an enviable summer reputation as the city of lights. Each year additions are made to a vast array of illuminations featured in the main street over the holiday period and this in itself is spectacle enough to warrant travelling some distance to see, but the crowning glory would have to be the careful placement of thousands of lights, many types and colours, in a different area of Pukekura Park each year. On this occasion the centre of interest was the Main Lake and nearby bandstand which was celebrating its centennial. The outcome can only be described as magical. Seldom does one see whole family groups of all ages on a leisurely evening walk together, all thoroughly enjoying the same experience.

The orchid group gained an extra bonus in being guided by the now pink-faced Curator (several had volunteered to sandpaper the green paint off!), who was able to point out features not always seen by visitors. He was also able to relate stories of his experience not always heard by visitors like the time he came down to investigate disturbing noises at 2.30 a.m. one Christmas Day and to his astonishment found . . . (I didn't think the Editor would allow it!).

There were those who have a reputation for shunning bed on such occasions and as others begin to shuffle and yawn, they form up into groups and disperse to cosy rendezvous, usually accompanied not with a hot-water bottle, but a slide projector, there to chatter on into the small hours about the same things they have been chattering about all day. What madness!

Sunday morning and visits were arranged to see several more local collections, then lunch at Marie King's before yet more visits on the route out to the north, including Waitara. Never continued on page 91

Artist's Forum . . .

12th W.O.C. Tokyo

Erica Cowdell

Do you know of New Zealand artists who paint or draw orchids for pleasure, for publication or as fine art? The Convenor of the Artist's Forum at the 12th World Orchid Conference, Marion Sheehan of America, is compiling an International Register of Orchid Artists and she has no New Zealanders on her list. If you want to be listed, please either write directly to Marion Ruff Sheehan, 3823 S.W. 3rd Avenue, Gainesville, Fla. 32607 or to me, as I have copies of the Questionnaires distributed at the meeting.

The forum was fascinating. The first section was devoted to orchids used as an adjunct to commercial art. We were shown orchids used to imply quality in advertising of a wide range of goods. Orchid art appears on paperware, fabrics, ceramics and even on silver cutlery.

The second section covered orchids used in creative fine art. This was demonstrated with Victorian art-one example featuring aerides and cattleva flowers in front of a fancy Victorian background was bought for US\$2.00 and sold for US\$154,000. A very vibrant Lithograph and a modern art piece labelled "Orchid" were also included. Marion Sheehan illustrates orchids with other living creatures from the same area—e.g. birds and orchids. One of her most attractive works featured a racoon. butterfly and orchid from the Everglades.

The third area of art is scientific, educational art. We were shown a book jacket from the South African World Orchid Conference where the orchid painting shows brown tips to the flower so that it looked entirely life-like. Pen and ink illustrations were

demonstrated as were herbarium sheet drawings.

Botanical artist, Dr. Luegg, explained his technique for pickling tiny orchid flowers collected in the field then mounting them on to microscope slides. The flowers are then drawn using a binocular microscope with a 10mm superimposed over the flowers. drawing is done on 5mm graph paper and is completely accurate. is then traced onto architectural paper with indian ink.

Two Japanese artists, Miss Yuri Shimidzu and Miss Minaho Hara, demonstrated their scientific art drawings and also showed the uses of natural dyes in art. An indigo screenprint of an orchid was superb. We were shown the use of natural dyes on woodware using an orchid motif.

Mrs Sheehan, a lecturer on scientific illustrations at the University of Florida, is to be congratulated on a really fascinating forum.

Welcome Bay R.D.5., Tauranga

a dull moment and the weather was glorious.

These summer shows have been such a success that they have now become an institution and it seems likely that they will continue in January whether the Park Pavilion is

available or not, so this should be noted by any one wanting to see a show with a difference and the lights of New Plymouth. The welcome will be even greater for anyone bringing plants for display.

| wos Dare |

Taranaki Orchid Society

◄ continued from page 90



OF MUGS AND DISA

George Fuller N.D.H.(N.Z.)

Masdevallia

Masdevallias under greater scrutiny has happened. The request printed in Vol. 12, No. 6 of November/December 1986, for information about Masdevallias, has resulted in enthusiasts writing from all over the country. From the replies, a Master List of all clones known to be in cultivation in New Zealand has been prepared and a copy sent to each person who wrote plus a few others for whom the information would be relevant. Confidentiality has been maintained by not disclosing ownership of the plants listed and of course there is no reference to numbers of plants.

The outcome of the survey has revealed many interesting factors, not least of which is that there is so much activity in the acquisition of masdevallias that the Master List was already out of date on the day it was compiled! In one sense that is of course wonderful news, but it does add wrinkles to the already wrinkled brows of the compilers.

Additions to individual collections have occurred through swapping, purchase and importation or a combination of these. At present there appears to be only two regular sources of purchase in New Zealand but this is likely to increase in the near future, as several growers are investigating importation of both plants and flasks.

In one known case enthusiasts returned from the World Orchid Conference in Tokyo with flasks of very high quality seedlings originating in the U.S.A. including *M*. Copper Angel, seedlings of which have already gained three Awards of Merit, one in the U.S.A. and two in England. Quite apart from the importation of new material, there is now a well advanced programme of pollinating operating in New Zealand and seed has already been harvested and sown. It has become apparent that thanks to the foresight of early enthusiasts,

some particularly fine clones of species were imported, some relatively rare internationally. Considerable effort has gone into locating and obtaining pollen from such plants and inter-crossing within the species (intra-specific), to ensure that they are not only perpetuated but that there will be maximum varietal range within the species. An example would be M. coccinea wherein we have perhaps nine or ten clones ranging from yellow, pink, lilac, fuchsia, cerise to scarlet. vegetatively propagated. Seedlings raised by crossing these with each other should restore the vast range of vibrant colours recorded in Veitch's Manual as occurring in the native habitat last century. Such seed is already in existence in New Zealand.

To satisfy innovative urges, numerous crosses have been made to produce hybrids and some are already out of their flasks. This should add considerable excitement to the range. These two developments may even generate a demand from overseas in the course of time. Standby for 1990!!

But back to the Master List for a few statistics. It reveals that in cultivation in New Zealand we have at least 71 named species plus about 16 unnamed mysteries. In the case of

many species, there will be numerous clones, as, for example, the ten of *M. coccinea*, six of *M. colossus*, etc., etc., so the clonal total is well above 71.

In the hybrid field there are yet more revelations; for we have 19 registered with names, some dating back to last century, plus 14 unregistered as yet.

Compiling such a list is a tremendous act of dedication because naming has been painstakingly researched through reference to numerous publications. In the case of species, the naming authority and even date of introduction is recorded so that it is a scientifically accurate document. For those who are now thinking that I am getting even more big-headed than before, I hasten to point out that all such research was carried out by Phil Mayhead. He is to be commended for an effort that, as as I can see, reaches an international standard and in itself may well be a deciding factor in some overseas enthusiasts coming to the 1990 Conference.

Before closing on the list, a few practical extracts. The great benefits of keeping a record of sources of origin is revealed. For example, in some cases plants have been imported incorrectly named and in good faith widely circulated. This is revealed in compiling the Master List and through individual contact the matter is rectified. In a few cases the plant is more desirable or rare, than the plant it was introduced as-"it's an ill wind . . .!". The write-up sent with the List suggests that one 'should not sit on rare things'. That is open to various interpretations but here it is meant to indicate that it is unwise 'to have all the eggs in one basket!'. That is open to various interpretations too but implies that there should be no pride in being the last to own a rare plant. Endeavour to ensure that there is at least one division, preferably in someone else's care. Cultivate the 'buddy system' for

your own greater enjoyment and protection. Particularly with 1990 in view, it is very desirable to maintain detailed flowering records so that there is at least some basis for making predictions of flowering times.

The above three factors are relevant to all types of orchids of course, not just masdevallias and can serve to extend greatly ones enjoyment of growing orders. For anyone wishing to 'eyeball-to-eyeball it' with masdevallias and other orchids in the wild, I note that the intrepid Jean Mowbray is leading a tour to Colombia, Ecuador and Peru. Is it really true that the spectacular M. veitchiana flowers amongst the stones of the ancient Inca ruins of Machu Picchu? Fingers off, Jean, but we would love to see photographs!

If the reader wishes to become involved in an interest with guaranteed expansion, get in behind the MUGS.

Disa

I mentioned earlier the matter of big-headedness, so it must be time to update on disa activities.

One of the great sources of satisfaction over the last year has been to receive letters of appreciation, accompanied by photographs, expressing how thrilled the writer has been to have received seed of *Disa uniflora* when it was being distributed through the Taranaki Orchid Society a few years ago and by their own efforts, germinate, grow and subsequently flower such a beautiful orchid.

Such responses have come from very wide geographical distribution and usually from people with no more than a porch or verandah, hence the great thrill over their achievement. This confirms success in the aspect of the venture which set out to bring total orchid culture to those with a minimum of facilities or expertise. Another of the objectives was to ensure that consistent with

popularising the growing of disa, the quality and range of the stock distributed should be the best To achieve this, only possible. selected clones were chosen for seed production and after a portion of seed was sown and kept identifiable from each pod, the excess was aggregated and distributed. The result is that exciting clones are turning up from all corners and anyone could have a real winner. One, for example, had the vental (lower) sepals encircled with gold and certainly those in the photos received are generally of high quality.

Another source of pleasure has been to see the very high standards of culture attained, both in terms of seed raising and subsequent plant growth. Much of this has been as a consequence of innovation and ingenuity on the part of individuals using local materials and personal interpretation of guidelines. The outcome of all this is that the future of disa in New Zealand is assured.

With successful flowering, the cycle is completed in that anv enthusiasts so motivated are able to produce their own seed and in six weeks are into care of the next generation. One factor which worries me here somewhat is that not enough care may be taken in selecting good quality parents. That means avoiding undesirable traits such as furling ventral sepals, weak or short stems. etc. Another is that records may be neglected. While we only have D. uniflora this is not so serious but with the introduction of other species and even hybrids as is now occurring, confusion could become rife. Once again, the need to use care and keep accurate records must emphasised.

Having successfully promoted popularisation of disa, to the point where its potential as a cut-flower plant is starting to be realised, the scheme for distributing seed has been phased out and this will give keen enthusiasts and commercial growers

the opportunity to expand as indeed is already occurring. I note that flasks are now appearing on the New Zealand scene and someone should certainly be importing the less common species which will breed with *D. uniflora*.

Introduction of *D. racemosa* a few years ago has allowed for production of *D.* Veitchii which when crossed back onto *D. uniflora* makes *D.* Diores. This hybrid is likely to be the mainstay of cut-flower production with strong upright stems and considerable colour range. There are some very exciting prospects and I detect that there are a few enthusiasts already burning with desire.

And now for a few practical pointers. After experimenting with many materials it appears that the most widely available, cheapest and reliable for seed sowing is plain pine sawdust. The simplist method is to \(\frac{3}{4} \) fill a clean plastic container, saturate the sawdust and firm the surface then dust the seed over the surface. Cover the top with a sheet of plastic clingwrap held in place with a rubber band and place the container in a shallow tray of water. Germination is rapid, weeds absent and development of competing algae and moss minimal. At the stage when leaves are evident, light liquid feeding can occur, the clingwrap having been removed at this stage. Feeding will hasten algal growth but the seedlings should at least have a good start before it develops. Provided light feeding is continued, the seedlings can even be pricked-off into sawdust and there is certainly great advantage in this if one deflasking. In the case of deflasking, it is advisable to cover with plastic clingwrap for at least a few weeks to aid re-establishment in a new environment.

With thoughts of 1990 and the 13th World Orchid Conference in Auckland in mind, it would be very desirable to have flowers of disa on display. Since peak flowering is in



A New Zealand raised clone of *Disa* Veitchii (*D. racemosa* x *D. uniflora*) being used in further breeding.

Grower: A. Arms Photography: G. Fuller

December and January, it seems that special efforts will be necessary to bring flowering forward. With many plants, length of daylight hours (or darkness?) has greater influence on flowering than temperature. Perhaps if we extend daylight hours morning and evening by artificial means there will be a favourable response. Anyone with any ideas?

Disa needs constant water availability which in most cases can be delivered by regular overhead application but where for any reason this is not possible, I have come to the conclusion, somewhat reluctantly, that the answer is to stand containers in about a centimetre of water. This is where overhead watering, with fairly free-draining mixes, cannot be almost daily. Comparable trials are advised, whether one is satisfied with growth rates or not.

There are so many facets to orchid growing that there is surely no excuse for boredom. Challenges arise daily and rising to them extends our range of skills. Whatever the individual has succeeded with is bound to be of interest to someone, so what about giving the Editor a break by writing down some of your experiences! It is only such action that will keep the journal relevant and vital.

Pukekura Park New Plymouth City Council Private Bag New Plymouth

WAIKATO ORCHID SOCIETY GENERAL FINANCE ORCHID EXHIBITION '87

2nd, 3rd and 4th October 1987 Te Rapa Racecourse, Hamilton

Over \$3,000 in Prize Money Commercial Growers, Sales Area, Floral Art

Prizegiving and Show Dinner on Friday evening Guest Speaker George Vasques, Zuma Canyon Orchids

Judging: By all N.Z. systems, including the C.S.A.

Staging of Plants:

Thursday 1st, 5.00 p.m.-9.00 p.m. Friday 2nd, 7.30 a.m.-10.00 a.m.

For Show Schedule or other enquiries:

Phone 65-410 Hamilton

or

Write: The Secretary, P.O. Box 7101, Hamilton

Memories of Australia and the Adelaide Show

John Hanna

Despite at least three tours leaving New Zealand for the Australian Orchid Conference, we chose to plan our own tour and to take the long way round to Adelaide.

Our first stop was Sydney, where shopping took us to the big ninestorey building of David Jones. The store was vast and each pillar was surrounded, above head height, by flowering Cymbidiums—not only eyecatching, but hard to accept considering the number of pillars on the nine floors.

Flying across to Alice Springs we were intrigued with what we thought patches of sand in the depressions of Simpsons Desert. which turned out to be salt. With unseasonal rain, Alice Springs was greener than usual and another surprise was the 24,000 population and the predicted 100,000 by the end of the century. The nights were very cold, there being two frosts preceding our visit, while the wastage of water from Artesian bores appalled us, with locals thinking it will be everlasting.

Ayers Rock was bigger, redder in colour and bitterly cold when I climbed to the top but this monolith is only a fraction of its size as one sees it, with the balance of 6 km, being underground. The other main feature, the Olges, 35 miles to the west of the Rock was worth the all too short visit, over a very corrugated road and proved to be just as vast but completely different being a collection of dome shaped hills.

On our way to Darwin we flew into Katherine, soon to be the home of the Royal Australian Air Force Northern Base. Here we enjoyed their famed Gorge and its changing colours.

From Darwin we visited the Kakadu National Park and when the third

stage is added to the Park, will be 20,000 square kilometres in size—so one has to travel many miles to see its features. The Park has world heritage rating because of its natural features, wild life and 280 different species of birds. Most of the Australian footage for the film "Crocodile Dundee" was shot in the park.

We were lucky to meet the President of the Northern Territories Orchid Society, Rosemary Bromwich, and her husband Owen, at their Darwin home where Rosemary grows mainly Vandas and Dendrobiums. It was interesting to find many of her Vandas growing like runner beans with no mix around the roots-all out in the open. Rosemary had been up to the Islands collecting orchids and her current treasure in flower was a Renanthera Twin Star x Imschootiana. Rosemary had also started a deflasking group which has 20 members who regularly share in a chosen flask. A similar group is in its infancy in the Waikato and only time will tell if it will be as successful.

The flight to Perth included a stop at Kunanurra which is all irrigated country from the huge man-made Lake Argyle, nine times the size of Sydney Harbour. Derby in twilight looked a vast delta of sand and mud. All cattle from here are shipped out of Broome because Derby has tidal variations of 40 feet. The wild flower tour from Perth proved more fruitful than anticipated not only because of the colours of the wild flowers, but also the wild orchids we found. They included -Donkey orchid Diuris longifolia, Cowslip orchid Caladenia flava, Green hooded orchid

Pterostylis recurva, Blue orchid Caladenia gemmata, Spider orchid Caladenia Patersonii, and the Leek orchid Prasophyllum elatum, this latter growing up to six feet.

The following day in huge King's Park I found more wild orchids just off the mown strip. In my excitement I ventured further into the undergrowth, when I suddenly remembered I was in Australia and beat a hasty retreat. The two orchids I found were Red Spider Caladenia longaclavata and the Pink Enamel Orchid Elythranthera emarginata.

805 registrants toured the Adelaide Show prior to the Opening Dinner and even with so many people immediate were impressions of manv Cymbidiums, neat pathways and borders, with green labels and black printing for naming plants, stapled to Two floors of a well presented Show were evidence of much planning and hard work. Trying to feed 800 from one point proved a marathon but everyone was in good humour bent on becoming acquainted respective dinner with their We had companions. as our companions a charming couple from Adelaide who later took us back to the Hotel.

Next morning we travelled across the city to the Showgrounds, where the Orchid Show was held and if there are any criticisms it was the time wasted travelling from the Hotel to the Show and back to the Hotel for Lectures and on the Saturday going to the Australian Mineral Foundation for the balance of Lectures.

Plants that impressed me at the Show were miniature Cym. Sarah Jean 'Ice Cascade', 1st in white class, a beautiful white hanging in a basket which fell down—without too much damage; Cym. Dag 'Dorothy', a wellgrown plant, Champion miniature 1st in green, 2nd specimen; Cym. Tommy 'Amy' 1st specimen, 3rd green; Show Champion Standard Cym. Lake

McQuarrie 'Winsome' grown by T. and E. Price and travelled 1,000 miles; Oncidium Varimyre 'Adelaide' by Gevserland Orchids: Lycaste Koolena 'Ballerina' on the New Zealand Orchid Society Naturally, the dendrobium species and the dendrobium primary hybrids including *Den.* Bardo Rose Delight' were all well grown and much admired. However, my choice was only third, in the white soft cane Dendrobium Class being Den. Yukidaruma 'King' by Parade Orchids. This had at least a dozen canes, each cane being completely covered in flowers—a very well-grown plant. George Vasquez of Zuma Canyon Orchids from California had Reserve Champion Phal. Ryne 'Zimmerman' while a real eye-catcher was his first prize in the Phalaenopsis Novelty, Phal. Sweet Memory x venosa. The Champion Stand had orchids in a cave and one had to peer in to see them all.

The speakers I heard and was impressed with were George Vasquez on Phalaenopsis breeding; Freda Ducket from South Africa on growing Cymbidiums in her 24,000 sq.metre growing space; Joyce Stewart, a charming Botanist from Kew Gardens: Harry Ngata on Cattleya growing in Japan; Wegman Bussey with his excellent slides of orchids in Mexico: Max Stolze on latest growing techniques in Holland and lastly Wal Upton speaking on Den. kingianum breeding. Fitting in two trips outside Adelaide and a visit to Adelaide Orchids, flying out for Sydney straight after the end of the Show and home to New Zealand the next day and leading our Society meeting that night in Hamilton, left us very tired, but happy with our trip and our visit to the Show and Lectures at Adelaide.

We especially enjoyed meeting so many nice people.

Mt. View Orchids Warings Road Taupiri

The Greatest Show on Earth?

12th World Orchid Conference Exhibition Tokyo, March 1987

Alan Paterson-Kane

Tokyo was an amazing experience. While visitors unfamiliar with Japan found the crush of crowds unpleasant, travelling time tedious, and the high costs of everything stretching their credit card limits, the quality of the plants and blooms, and the standard of display at the 12th W.O.C. Show was truly outstanding.

Can you imagine waiting in line for two or three hours just to get into the exhibition? The line is five or six persons wide and a kilometre or more long, slowly shuffling towards the two huge plastic domes that house the Show. Set in a two hundred acre recreational park in the suburbs of Tokvo, the ''bubble houses' were purpose built for this special occasion. The other attractions of the park help to distract the people in the queue as they slowly wind their way towards the pressurised "air lock" entrance which controls the air pressure in the dome (and the flow of people!).

Inside each of the 4,000 square metre bubbles the aisles are a sea of people, most following the firm directions of scores of uniformed 'task force' members. A few independent souls try swimming against the human tide, expertly pushing, shuffling and burrowing as only a Japanese trained by participating in Tokyo rush-hours could.

Even pausing long enough to take in the visual delights of a specially pleasing display is difficult. Photography during public viewing is basically impossible. Fortunately, for early risers, registrants to the 12th W.O.C. were allowed admission for one hour each day before public opening.

There are many outstanding displays. The most successful have a

single central theme. Some use only a few flowering plants to striking advantage. Others mass similar flowers tightly together, with plenty of contrasting space between. Cut flowers and flowering plants have endured journeys from as far afield as Holland, Britain, France, U.S.A., South and Central America, as well as Oceania and Asian countries, but the local Japanese growers, both amateur and commercial, create the greatest impact, through both plant quality and innovative design.

A good number of prizes go overseas, but as expected, the locals clean up—including both Champion and Reserve Champion of the Show. In the main circular Exhibition Hall are displays by societies, commercial firms, and a group display arranged to accommodate individual entries.

Let's start by the main entrance and wander around the outer perimeter. We are soon stopped in our tracks by a breathtaking display by Plantech (Miura Mericlone) of Japan. The lack of variety of genera counts against this display on the judges scorecard, but as a visual design it was one of my favourites. Up in the left back corner is a large branch smothered in bright orange red Sophronitis coccinea. Jiro Miura has visited Brazil regularly for many years, being honoured by the Brazilian Government for his work in helping to record their orchid flora. He has obviously picked up a few nice plants along the way.

Most of the floor area is a mat of Paphiopedilum micranthum and P. armeniacum, the pots placed in holes cut in a raft of bamboo poles. The large number of plants of these two species on display and on sale makes one wonder just how many can be left in their limited natural habitat.

Close by was a bold display of pink and white phalaenopsis by Tokyo Orchid Nursery. The pink varieties were grouped together, and separated from the whites. Both were arranged amongst a tiered bank of Boston ferns, the bright green foliage contrasting with the sparkling blooms. Vacherot and Lecoufle from France set up a fine selection of phalaenopsis, cattleyas paphiopedilum in their "French Gallery", which featured the bold colours of the tricolour, with ornate frames surrounding the plants set against a stark white wall to give the impression of an art gallery.



The contrast of bright green Boston Ferns helped to set off these sparkling white phalaenopsis on the Tokyo Orchid Nursery display.

From Britain, McBeans and the Eric Young Foundation combined to produce a fine collection of cymbidiums and odontoglossums. (There were very few cymbidiums in the Exhibition as most Japanese varieties flower during the months of December, January and February when commercial demand for gifts is higher). McBeans used the same type

of display they have produced over the last few years at Chelsea and BOGA Shows, with a floor of fresh green turf, stained wooden half rounds surrounding groups of similar coloured varieties. Some of the groups were raised atop round posts—most effective.

Rounding a corner we spy an awesome sight which gives new meaning to the phrase "Tokyo Tower". This tower is not made of steel, but of white phalaenopsis. The structure, built by the Tochigo Orchid Growers Association, rises six or seven metres. Supported by a base smothered in pink and white phalaenopsis of outstanding quality (including the Champion white phalaenopsis plus many other prize winners), as well as yellow and lavender cattleyas, several hundred phalaenopsis plants with cascading spikes of sparkling white blooms rise skywards. Pretty young local ladies



Tochigo Orchid Growers Association



This Japanese mannequin completely clothed in dendrobium blooms was exhibited by the Okinawa Ocean Expo.

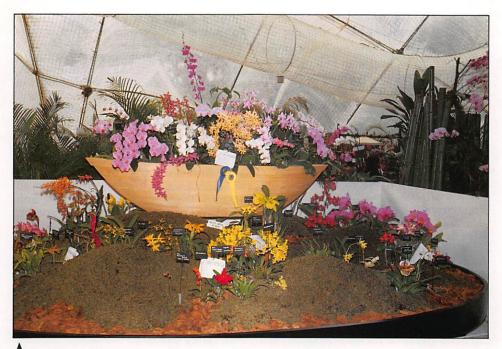


The most successful cut flower displays featured masses of similar coloured blooms. The RHS Thailand used cut-flower dendrobiums of several select varieties.

DISPLAYS AT THE 12th WORLD ORCHID CONFERENCE TOKYO

The plant form, the flower, and the pot are of equal importance to the Japanese when they display oriental orchids—in this case cymbidium species by Miyazaki Kunichi.





A Noah's Ark of orchids by the Kamakura Orchid Society.

'Aztec treasures' was the theme of this display of mini cattleyas by the Jindai Orchid Society (Japan).

All photography by Allan Paterson-Kane

The Fujioka-shi Orchid Growers Association constructed this "Cherry Blossom" tree by wiring many hundreds of cymbidium blooms to the branches of a deciduous tree.





line up to have their picture taken in front of this remarkable structure.

Just opposite, against the outer wall is a large and varied collection from Dhogashima, a tourist oriented orchid display and nursery on the Izu Peninsula south of Tokyo. In the front corner is a wonderful array of minicatts in all colours, seeming to grow on a moist bank of mosses and ferns. Surrounding a large central sign of Japanese characters (presumably advertising) made entirely from orchid blooms are masses of pink and white phalaenopsis, white dendrobiums and yellow oncidiums. Ferns are used effectively to give contrast.

A few steps on is a small but remarkable setting from the Sao Paulo Orchid Society (Brazil). Using large rocks and a scale model of the famous statue, we are confronted by the landscape of Rio de Janiero. Out of crevices grow ferns and orchids. If I had been able to bring back just one plant from the whole show it would have been a fine specimen of the dwarf Laelia pumila var. oculata 'Imperatiz' that was centre stage on this display. The plant was covered in sparkling blush white blooms with deep velvet purple markings setting off the white lip.

Just over the aisle the Jindai Orchid Society had carved replica Aztec statues and urns overgrown with colourful mini and novelty cattleyas, and the Sagami Orchid Co., had built a scale model of Mt. Fuji from pink and white phalaenopsis (see photo previous issue). On a sparkling Lake Hakone made of flasks sail boats full of orchids.

Opposite stand the 'dendrobium ladies', two mannequins clothed totally in pink and white dendrobium blooms. The cameras are continually clicking at this corner!

Further along is the 'cherry blossom tree'. A deciduous tree has had hundreds of pale pink cymbidium

blooms wired to the branches so it is completely clothed in pink blossom.

Yamamoto Dendrobiums fill a large tiered display with a full colour range of their latest creations, including the Reserve Champion of the Show, *Den.* Hawaiian King 'Giant', a floriferous white of massive proportions.

Makato Hanajima, well known to many New Zealanders, displays his very fine collection of cattleyas and phalaenopsis on a mirrored tiered stand. The appearance is bright and sparkling, and the reflections add to the colour and variety.

There are scores of other fine exhibits. Many are entirely dependant on cut flowers. Displays of cut flowers vary greatly in design quality. Entries from countries having strong cut flower industries, like Holland, Italy, Thailand and Singapore stand out. They use large masses of blooms all of one colour, separated from each other both horizontally and vertically. We could spend many more hours in this first dome and still not see all of the more than one hundred thousand plants.

The second, tear-drop shaped dome houses oriental orchids, floral art, and the commercial sales area. Inside the "pressure lock" entrance we are guided past massed displays by the Japan Calanthean Society. The indigenous Calanthe species are grouped in a natural forest floor setting, while a huge bench full of man-made hybrids are complemented by beautiful ceramic pots, quite different in shape to those used for the oriental cymbidiums next door.

It is said of the oriental cymbidium that its slight and noble fragrance is the "most luxuriant experience of spring". To stand and gaze at the serenely beautiful settings was an equal experience.

Over centuries the culture and decorative use of these species has

been polished by the sharp sense of the Japanese. The various species flower from the New Year period through to October/November, giving the enthusiast year-round enjoyment from his hobby.

Equal importance is placed on the three ingredients of culture-the shape of the plant, the quality of the flowers, and the decorative impact of the pot. Many species were not in bloom at the time of the 12th W.O.C. but by judging the other two characteristics, silver and gold medals, as well as ribbons were freely awarded. The popularity of the species well oriental was demonstrated in the sales area, where selected forms ranged in price from a few hundred to several thousand dollars.

The sales booths were a colourful scene, with most surrounded by crowds of Japanese enthusiasts clamouring for the special variety or latest mericlone. Prices were very high by New Zealand standards. Small plants of mericloned plants averaged around NZ\$30.00 with more exclusive varieties much more expensive.

Sitting in a mist-shrouded Narita Airport Restaurant, I reflect on an allto-short Japanese experience. The difference in life-style and culture and the beauty of the Orchid Show leave strong impressions.

The 12th W.O.C. is over. Months, no, years of dedicated effort by many enthusiasts and professionals has produced a memorable event. Was it the greatest Orchid Show? How can you compare them? Each has its own special character and charm, a reflection of the local scene. I know that I am very happy that I decided to go, and will treasure always those hundreds of memories captured on film.

22 Caulton Street Auckland 6



The Dhogashima Orchid Centre (Japan) entered a big display which included this bank of colourful mini and compact cattleyas.

Native Orchid Camp Iwitahi

In response to the interest shown in the native orchids to be found at Iwitahi, near the Taupo-Napier road, the Taupo Orchid Society is sponsoring a two-day camp and programme on the 5th and 6th December 1987.

Details of what is available for study in this area can be found in the 1986 March/April issue of "Orchids in New Zealand" and also in the Newsletters, numbers 17 and 20, of the New Zealand Native Orchid Group.

Anyone interested in attending or wanting information should write to

Trevor Nicholls 33 Hinekura Avenue, Taupo 3300

13th World Orchid Conference 1990

Auckland, New Zealand June 1987



4th Newsletter

Liaison Officers

Mrs Joan Maul of Stratford Orchid Club becomes the first volunteer Liaison Officer and will pass news of 1990 onto her club and no doubt promote interest in her area. Welcome aboard Joan, thank you for your interest and prompt action Stratford. We will be pleased to hear from other societies too so that we can start the very important links with all orchid growers in New Zealand.

Masdevallias for 1990

A fledgling Masdevallia group have published their first Newsletter and are keen to mount a specialty display at the 1990 Exhibition. Such enthusiasm is marvellous and will be encouraged. It emphasises that we may not all live in Auckland but we can all be part of 1990.

1990 Hybrids

Has your society purchased any of the special seedling flasks yet? They are still available and can feature in competitions that you may run. How tremendous if one of these seedlings expressly made to flower in 1990 got into the prize list or even became champion seedling. Contact the New Zealand Orchid Society at 24 Coronation Road, Epsom, Auckland or phone 656-300 for further details on hybrids available.

Finance

An easy way to become involved immediately is by personal loan through your society. Any loans made to 1990 will be repaid to your society from income made during the Conference, hopefully with interest. You are therefore supporting your society as well as the 13th World Orchid Conference.

We do need funds now to start things rolling. Any income from the Conference itself is quite a long way off yet, so we are very much on our own for the initial funding of early expenditure required.

1990 Badges

We have a very nice badge for sale now at \$5.00. Please order these through your society so that we can send bulk lots. It is a very smart badge which sold like hot cakes in Japan.

> R. W. Dix Chairman Publicity and Public Relations Committee



Orchid Growing with Hydroponics

Eion Scarrow

Over the last two years I have been trialing different species of orchids in a normal hydroponic growing unit. The first specimen chosen was a species of Laelia (L. pumila), a dwarf growing form, which I found very hard to flower under normal growing conditions.

The plant was never very happy, so drastic measures were taken! Knocking it out of its pot, and washing all the growing media off the roots, I found that not many clean, new roots remained. Replacing the pine-bark with coarse river-worn, rounded pebbles, up to 5mm in diameter, the plant was placed into a section of my Hydroponic Unit where it could be fed with a micro-tube on the normal nutrient supply.

Within three weeks the pale green leaves had shown a remarkable change to a rich deep green, new growths were appearing and what amazed me more was the terrific amount of new roots showing in and around the new substrate.

A month after repotting, one of the new growths showed a flower spike. This soon opened, sporting four delightful blooms. Within another two weeks five new growths were in flower. This proliferation of flowers led me to try my first pollination experiment. Seven pods were 'set'. This did not stop the laelia from flowering. It has now been in flower for the full two years; the mature pods were removed after nine months and sent to a Laboratory where they were sown. At no stage did the plant have less than three spikes flowering and the plant had doubled its size.

The next experiment was to set up a complete orchid growing unit. A two metre by one metre, glass fibre bed, plumbed up with a separate nutrient tank and submersible pump was placed into a shady corner of my office. This was then filled with the river pebbles and several more species

of orchids were directly planted into this. Over the top of the bed a framework of Marley downpipe with large holes drilled to take more 5cm pots was placed on a tripod and plumbed into the main nutrient supply through micro-tubing. The whole system recirculated the nutrient. A time clock was built into the wiring to the pump and every eight hours turned the pump on for ten minutes at a time. The genera grown in this unit were: paphiopedilum, vanda, zygopetalum, cattleya, phalaenopsis, cymbidium, lycaste, dendrobium, calanthe, bifrenaria, odontioda, odontoglossum and oncidium. These were all directly planted into the pebble glass fibre tray. In the tripod unit above, young seedlings ex flasks, of miltonia, laeliocattlevas and phalaenopsis about 3cm high were once again directly planted into a smaller grade of pebbles.

Brian Pryer, of Bio-Tissue Products, formulated a nutrient fertiliser which we used as a trial.

The growth was so promising in this unit using the ordinary hydroponic nutrient that he formulated his now very popular orchid nutrient. Two formulations were developed: the Spring Mixture with a high nitrogen content to boost new green growth, and the Winter Mixture containing a higher potash level to encourage flowering.

Due to these experiments, a bigger area of greenhouse is now being planned to carry out a commercial trial of more genera.

Gordonton Waikato

PESTS OF ORCHIDS

4. Scale Insects

G. M. Barker

Scale insects belong to the insect Order Hemiptera. They are among the most highly modified insects, being specialised for a sessile or nearly sessile life attached to their host plant. Scales derive their name from their protective covering. This is secretted by the insect and varies enormously in hardness, texture and shape.

There are two main groups of Scales-armoured or hard Scales belonging to the family Diaspididae. and the Soft Scales of the family Coccidae. Armoured Scales are more or less flattened, and either circular or elongate. The formation of such Scales begins after the minute crawler settles and starts to feed, when it produces fine waxy threads from the pores of the body. The threads mat together to form the foundation of the As the insect grows the moulted skins are entangled with further threads and mounded into the hard shield-like covering or scale whose shape is characteristic of that particular species. The insect lives freely under this protective cover. Armoured Scales which infest orchids in New Zealand include the Oleander Scale (Aspidiotus nerii) and the Boisduval Scale (Diaspis boisduvalii).

Soft scales do not produce a hard protective shell or scale but their dorsal surface has a tough outer The shapes assumed by cuticle. different species of Soft Scales are circular or oval in outline, more or less convex, often dome-shaped or even raised in the form of a cone or horn. The Soft Scales are the more common of the Scale insects to infect orchids and include the Brown Soft Scale (Coccus hesperidum). Hemispherical Scale (Saissetia coffeae) and the Black Scale Saissetia oleae).

Reproductive patterns among Scales are diverse, with some species producing eggs and others producing live progeny. Where eggs are

produced, they are held until hatching beneath the protective scale of the armoured Scales or in a cavity under the female of the Soft Scales. The only true mobile stage of most species is the first nymph or 'crawler'. These very minute crawlers wander over a plant until they settle, or they are dispersed further afield by air currents. They are so light that they can be carried great distances by strong winds. Indeed, crawlers of several species are known to be



Oleander Scale Aspidiotus nerii

Photography: G. Barker

carried thousands of kilometres on the wind! Once a suitable feeding spot is located the crawler commences feeding. With subsequent moults the mature, sessile female form is attained. Females lack wings and their legs and antennae atrophy. Many species possess no males in the populations and reproduction occurs from virgin females. In some species both males and females occur but the sexes differ considerably in mature body form. In the early stages of development both sexes are much alike, but at a certain nymphal stage, those destined to be males transform within a cocoon. The male insects are small and have non-functional mouthparts. They serve to fertilise the females. The males of some species have wings and act as an additional dispersal stage.

The most obvious stage is the mature female Scale. Active stages are small and inconspicuous, so that by the time an infestation is obvious. damage has already occurred. The female Scale and the early stage males have mouthparts in the form of a stylet. This hollow structure is thrust into the plant tissues and used to suck up sap. Damaged plant tissues first become chlorotic and vellow, then black and necrotic. Whole leaves and pseudobulbs can be lost to chronic infestations, and with continued neglect, entire plants can succumb to these pests. In addition to removing plant fluids, some Scale species have a toxic effect on the plant, causing stunting and deformity and more rapid demise of the plant. The Soft Scales produce copious quantities of honeydew while feeding.

This sugary secretion provides an ideal substrate for growth of black

sooty mould fungi.

Control

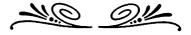
If detected at an early stage, when populations are small, control of Scale is a fairly easily managed affair. A spray of mild liquid soap and water may be sufficient to discourage the establishment of a damaging population. Cotton wool dipped in Methanol or Methylated Spirits can be useful in killing and removing the isolated Scale or two. If left to multiply, a far more uncooperative population can quickly result. these, applications of insecticides are required.

Since Scales may settle on any part of the plant - on the leaves and stems. in the leaf axils, in the bud sheaths. under the sheaths of pseudobulbs-insecticide spray applications must be very thorough. The contact insecticides Maldison (trade name Malathion) and Diazinon (trade names Basudin, Dyzol, Diazinon) are very effective against nearly all the Scale species. residual action is short, however, and for some species they will kill only the newly hatched crawlers. Also, the spray usually cannot reach the eggs under the females, and additional sprays must be applied as the eggs hatch and crawlers emerge.

An alternative to the contact insecticides are the systemic compounds which are taken up by the plant and contaminate the sap on which the Scales feed. Dimethoate (trade name Rogor) is an effective systemic insecticide for control of Scale on orchids. This material can be applied as a spray or as a pot drench.

The timing and number of sprays required will depend upon the particular Scale or Scales involved and the choice of insecticide. As a general rule, three or four applications applied at three-week intervals should give control.

> Ruakura Soil & Plant Research Station Hamilton



'SHOW SUGGESTIONS'

Judges' Stewards—Duties, etc.

Part III

Des Leahy

These suggestions have been evolved over a number of years and have proved satisfactory in most situations but may be modified to suit particular requirements.

If the Judging Panel is split into numbered Sub-Panels, ideally each will require the assistance of five Stewards who shall follow the instructions of the Sub-Panel Leader.

While it is important for the Stewards to carefully attend to their duties they must at the same time stand clear of the Judges while each class is being judged and above all refrain from comments and maintain the confidentiality of what they hear and see at the time. e.g. Judges must have the right to express their opinions at the appropriate time on any exhibits in the Show. discussions, comments and actions are strictly "in Committee" and the deliberations of the Judging Panel are not to be disclosed to any other party. Like the Judges, it is usual for Stewards to declare their interest if they own a plant in the class being judged at the time.

In this case they should advise the Sub-Panel Leader and leave temporarily and rejoin after the decision has been made or after the particular plant has been eliminated.

If there is an unusually large number of entries in any one class a steward may point this out to the Sub-Panel Leader who may decide to request the Show Marshal to split the class into two or more parts to suit the type of entries or the Sub-Panel may decide to nominate their choices thus eliminating sub-standard entries but each entry must be looked at by the whole Sub-Panel of Judges to decide this procedure.

To facilitate the identification of plants for judging it has been found

that numbered cards for each class can simplify the process and a satisfactory method is to stand these cards in front of all entries wherever they may be. They might be in a display or in several displays and if this is the case it will be essential for the Show Marshal to provide an accurate list to identify the plants to be judged and the class as nominated by the owner(s).

N.B. It follows here that a plant (or an entry) should be *entered in only one class*, otherwise it becomes most confusing.

The placing of numbered cards is best done by two Stewards working together, each provided with three complete sets of cards. 1 to 20 has been found satisfactory with one spare set of 21 to 30 between them.

The Sub-Panel Leader will give these two Stewards a list of the classes that are to be judged and they will go ahead of the Judges and set out the numbered cards accordingly. We will call these two Stewards the "Numberers" and they will come back into the procedures again later. The third Steward is the "Recorder" and will stand beside the Leader and record, the voting of Judges on a ruled form prepared for the purpose. The Leader calls for the votes on each entry by number thus reaching a decision on a simple majority. Leader may, if necessary, empowered to have both deliberative and a casting vote in the case of a tie but it is usual that if this should occur in the case of a first place the result is void and the judging of that particular class is left to a full

panel later. Second and third places may be decided on a casting vote of the Sub-Panel Leader.

When the class placings are decided, Steward No. 4., (the "Place Marker") acting on advice from the "Recorder" places colour-coded cards on the place-getters; say Red for 1st; Blue for 2nd; Yellow for 3rd. Steward No. 5 (The "Runner") then moves in beside the "PLACE MARKER" and lifts the Exhibitors Identification Cards which should have been left face-down on each entry. So that, in theory, the Judges do not know who is the owner of the plant.

The "RUNNER" then marks the back of this card with

(a) the Judged place, and

(b) the number of the Sub-Panel to which he or she attached (this is to help the "Prize Card Writer" to keep the prize cards in their correct order for redistribution).

The colour-coded place cards are left in place of the Exhibitors Cards but the runner must allow the Sub-Panel Leader to check that the procedures at this stage are correct, i.e. that the colour-coded cards agree with the "RECORDERS" form and that the information on the back of the Exhibitors' Cards agrees with the colour-coded cards.

If there is a weak link in the chain of procedures it has been found that it often occurs at this point hence the necessity for the check by the Sub-Panel Leader. Because, it seems, of the increased occurrence of new varieties and intergeneric crosses, there is also an increase in incorrect spelling. This is brought about in most cases by lack of experience by owners in nomenclatural matters. Although it appears to be seldom done up to now, it is a strong recommendation from the writer that the Sub-Panel Leader also checks the place-getters Exhibitors' Cards for incorrect or questionable particulars and asks the "RUNNER" to inform the "CARD WRITER" and/or a person

appointed to check for nomenclature, etc. This will in the long run save time and the waste of expensive prize cards—and frayed tempers.

When the "RUNNER" delivers the exhibitors cards to the "CARD WRITER", the completed prize cards for his or her Sub-Panel will be ready for return to the appropriate places "held" temporarily by the colour-coded cards which will be exchanged and collected and returned to the "PLACE MARKER" for later re-use.

In the meantime one of the "NUMBERERS" will have re-visited the judged class, observed that the colour-coded cards are in place and thus the numbered cards can be uplifted for further use ahead of the Judging Sub-Panel.

N.B. It is essential that the "NUMBERERS" locate and uplift ALL of their numbered cards. This is not easy, especially if numbers have been left in several displays, so each "NUMBERER" is advised to keep a list of the location of the cards left in use.

These instructions many seem complicated but have, in the main, been found to work satisfactorily once each Steward has had a little experience.

It has been found by most Stewards to be both interesting and a way of increasing knowledge.

In every case, so far, the positions are sought after by those Society members who are keen and willing.

The essential requirements are that Stewards must be able to first clearly understand what they have to do and also be capable of concentration on the job. If they have these qualities they can be of inestimable assistance to the Judges and nearly every modern-day Judge has started by being a JUDGES' STEWARD.

In American parlance Stewards are known as CLERKS (not "CLARKS").

5 Coronation Road Mangere Bridge Auckland



Plate. A page from Laishley's Notes and Drawings. Reproduced courtesy of the British Museum (Natural History).

10. RICHARD LAISHLEY (1815-1897)

lan St. George

The Rev. Richard Laishley was a nonconformist minister who preached and painted in New Zealand from 1861 to 1869 (based in Onehunga), 1871 to 1876 (at Thames), and for the last eleven years of his life at Devonport. He was an amateur naturalist who was fully trained as an artist.

Laishley was born at Southampton, and as a boy walked in the New Forest and along the Itchen Stream, where the attractions of the surrounding scenery kindled a love of natural science. From his mother's side came a love of art, and in 1832, after instruction in drawing at school, he began formal art training at Sass's Academy in Bloomsbury. He spent time sketching in the British Museum and Somerset House, and was accepted as a Probationer at the Royal Academy School when he was eighteen. The course was ten years.

By 1850 he was drawing birds' nests and eggs, insects and flowers in England. On the voyage to New Zealand (1860-61) and for the years at Onehunga he worked on natural history subjects. Birds were his favourites, but he drew insects skilfully, and "the plants are equally successful, and in some cases of great delicacy. In all these pictures one sees an inquisitive scientific eye, avid for detail and 'truth', combined with a considerable ability to set down what he saw with pencil and brush" writes Peter Whitehead.1

Laishley had time to travel—he sketched the South Island robin at Nelson, and the North Island robin near Kerikeri. He drew a carved feather box, painted portraits, a Maori girl, landscapes, and two years before he died, an oil of a "Track through the New Zealand Bush", now in the Alexander Turnbull Library. He exhibited with the Auckland Society of Arts in 1884 and 1887, and at the Sydney exhibition in 1879.

He had produced a small volume, "A popular history of British birds"

eggs" in 1858, but the major collection of his work remains unpublished, in the Zoology Library of the British Museum (Natural History): a small notebook and two large volumes, the first, "Gleanings of natural history in New Zealand by R. L. several years a resident in that country" (descriptions of flora and fauna), and the second, "Notes and drawings in New Zealand" with nearly 100 representations of birds, insects, plants, scenes and other subjects. His art is quite strikingly beautiful.

Among the drawings are the orchids Earina autumnalis ("a beautiful and very fragrant orchis growing on the mossy trunks of fallenand decaying trees, and blossoms in March. Found at Waitakarei March 1866"). Orthoceras strictum (labelled "O. solandri, huia-on track to N. Manukau Head''), Dendrobium cunninghamii (labelled Dianella intermedia; "orchis in trees, Huia"), Thelymitra longifolia (''Two representations of same species; the one growing in sand, the other in clay"), and one labelled "orchis" showing three views of Pterostylis banksii "growing near the Hape creek, Thames. Nov. 21/85".

Laishley's work lay unappreciated by the wider public for almost a century—the volumes stayed with his family until 1950. In 1983 two papers appeared giving some recognition to this gifted artist—naturalist missionary¹,². Peter Whitehead sums up,

". . . he painted for his own amusement, but he was not just a Sunday painter. He had a full training

OBITUARY WINSTONE LARSEN

The death last year of Winstone Larsen of Wanganui was a sad event for the Wanganui Orchid Society and his orchid growing friends. Winstone passed away at the Wanganui Orchid Society's Christmas function on Wednesday 3rd December 1986.

Winstone, with his wife, were foundation members of the then Wanganui Orchid Club, formed on the 1st May 1967. Winstone grew orchids for some time before that as a hobby during business years as a leading commercial gladioli grower. They both worked tirelessly for the Wanganui Orchid Society and kept the club together during early difficult times.

Winstone travelled to Orchid Conferences and Shows throughout the world, including Frankfurt, Queensland and Miami. Always returning with a wealth of information and photographs for slide evenings, enabling all members to benefit from his experiences.

Winstone will be sadly missed and to his wife, Nancy, and friends we extend sincere sympathy.

For the Wanganui Orchid Society M. J. Stringer, 88 Portal Street, Wanganui

continued from page 111

behind him and while he did not or could not make a living from his art, he was in all other senses a professional."

References:

- Whitehead Peter JP. "Should fate command me to the farthest verge": the Reverend Rich Laishley in New Zealand, 1860-1897. In Hoare ME and Bell LG (eds.). In search of New Zealand's scientific heritage. Royal Society of New Zealand, Wellington, 1984. p101-112.
- Sibson RB. Richard Laishley 1815-1897, priest, painter, naturalist. *Nortornis* 30, 1983. p29-33.

SLAB CULTURE

Notes from a talk by Graeme Burr, Kawerau, to the Bay of Plenty Orchid Society.

The punga he uses can be very acidic so soak it well in water with a little dolomite added. Most orchids will do well on punga slabs as it is natural—Phalaenopsis, Oncidiums, Dendrobiums, Coelogne, Encyclia all do well. There is a good supply of punga at Brakes opposite the Agrodome in Ngongotaha, Rotorua.

Graeme keeps plants in pots for 12 months to observe their growth habit before positioning them on slabs. One Coelogyne was on a punga that had been hollowed out round the hard core and packed with moss. A Dendrobium keeps it moist. *speciosum* had a new growth indicating which way it was growing and the plant was wrapped in moss and packed low down on the slab. It was packed so tightly it did not need tying. Encyclia cochleata had its roots spread out with the newest growth to the back. Plenty of moss to keep it moist and to prevent the nylon cutting into the roots. There were a few loops through the bulbs to hold the rhizomes onto the slab. Catesetum was surrounded by baby ferns, which looked very attractive and get pulled out when they are too large. They can be left for up to 10 vears.

He waters once a week when small and roots are in the hollow, and then daily if needed once roots are very little They need exposed. fertiliser, just a weak microfeed. Alaska or any fish fertilisers blacken the moss. Graeme fertilises once a month with a foliar feed. He sprays monthly with Orthene for bugs but slaters are a problem. He tried pellets but they just fell out so he puts up with the slaters.

Graeme hangs them all on the wall with strong tying wire made into hooks. His plastic greenhouse is lined with galvanised sheets of mesh.

'AUSTRALIAN EVENTS'

ORCHID EXPO '88

8th to 12th September 1988

Hosted by:

Sub-Tropical Orchid Council, Queensland

to be held at

Civic Cultural Centre Caloundra, near Brisbane

Plans include a 5-day Show, lectures, orchid nursery and scenic tours.

Information from:

The Secretary
Orchid Expo '88
Mrs D. M. Mitchell
M.S.F. 956
Flaxton via Montville 4555
Queensland, Australia

Tropical Orchid Conference at Darwin 10th-13th June 1988

Sponsored by:

Tropical Queensland Orchid Council

Hosted by:

Orchid Society of the Northern Teritory

Plans include:

Tours to private and commercial collections, and to Kakadu National Park. Viewing tropical native orchids in their natural state.

Information from:

Conference Secretary P.O. Box 38493 Winnellie 5789 Northern Territory Australia

Australia's Bi-Centenary Orchid Festival

11th Australian Orchid Conference

at
Sydney
17th-25th September 1988

Hosted by

The Orchid Society of N.S.W. Ltd.

Plans include:

A 7-day Exhibition at the Sydney Town Hall, lectures and local tours to private collections and commercial nurseries.

Information from:

The Secretary
Australian Orchid Conference
Mr A. Alvis
5 Knocklayde Street
Ashfield 2131
N.S.W., Australia

CORRECTION

The photos in Jack Hart's article on Equitant Oncidiums in Vol. 13, No. 1 were not taken by Jack himself, but by Jim Watt of Devonport.

Sorry, Jim.

WAIKATO ORCHID SOCIETY Spring Show

2nd, 3rd and 4th October 1987

See Article, page 87

Closing Dates for

Vol. 13, No. 6: 18th September Vol. 14, No. 1: 6th November

Longview Orchids CYMBIDIUMS

For 1987 we again have a big range of Miniature Cymbidiums including many pendulous varities. Each year we add some new selections and drop a few off.

PHALAENOPSIS

are also available with many hundreds to choose from. Small sizes 10-15cm to large flowering specimens.

CATTLEYAS

A selection of superb mericiones from Hawaii, as well as some cool growing seedlings.

DENDROBIUMS

For the person who can provide some warmth we also have selected 4 (four) varieties of Hardcanes to give flowering for most of the year. Plus a limited number of Australian natives.

Send a S.A.E. for our lists, or call and see us when in Tauranga.

Eric and Vorrei Jones **Longview Orchids** Main Waihi Road, R.D.1. Bethlehem Tauranga

Phone (075) 64-668

Cattleya Lovers. Heard about the beautiful Hazel Boyd crosses? Plants and flasks from House of Orchids

145 Manuka Road, Auckland 10

Orchid Flasks, exotic selection, Disa, Cattleya, Paphs., Dendrobium, Phalaenopsis, Miltonia, Odontoglossum, etc. 160 varieties, list available.

Marble Gardens
Park Estate Road, Papakura
Phone 298-6619

WANTED TO BUY

BECHTEL & CRIBB HAWKES ENCYCLOPEDIA

In good order

Mrs P. Martin, 3 Morriss Place, Cambridge

WAIKATO ORCHID SOCIETY Spring Show

2nd, 3rd and 4th October 1987

See Article, page 87.







Australian Orchid Review

Issued quarterly each March, June, September and December.

SUBSCRIPTIONS ARE NOW BEING ACCEPTED

 Overseas Surface – 2 Years
 \$U\$40.00
 1 Year – \$U\$22.00

 Airmail, New Zealand – 2 Years
 \$U\$50.00
 1 Year – \$U\$27.00

 All Other Countries – 2 Years
 \$U\$58.00
 1 Year – \$U\$33.00

Single Copy Airmail — \$U\$7.50. Back Issues, send SAE for list of available issues.

14 McGILL STREET, LEWISHAM, SYDNEY, N.S.W., AUSTRALIA 2049

Montessa Orchids

Jim and Lyall Mitchell
200 Redoubt Road, Manukau City. Phone 263-9690
(3 minutes from Motorway and Manukau City Centre)

OPEN EVERY DAY

CYMBIDIUMS

Hundreds of varieties of Standards, Intermediates, Mini's and cascading, Export varieties.

We have produced many prize winners Big selection of other genera

Tauranga Bark Liquid Feed List available



Laelia endsfeldzii—yellow
Laelia pumila—pink
Cattleya trianaei—white/pink
Cattleya aurantiaca—yellow/orange
Cattleya elongata—tawny brown
Cattleya amethystoglossa—white/red dots
Cattleya bicolor—copper brown
Cattleya gigas alba—white



Orders sent bare root.

2" pot size, ready for 4" pots—\$10.00 each plus GST, plus \$5.00 post and packing

Write for our NEW catalogue enclosing 60 cents in stamps.

ANN MARIE ORCHIDS

Syd and Joy Wray P.O. Box 489, Whangarei

AUSSIE DENDROBIUM AND SARCOCHILUS HYBRIDS -FLASKS FROM DOUBLE U ORCHIDS-

Wal and Jill Upton of Double U Orchids in Sydney have an outstanding collection of Australian hybrid and species parents. Wal's new seedlings have for several years been at the leading edge of Australian hybridising. No other nursery could produce the variety and quality available from this list. We are proud to be able to offer these as N.Z. agents for Double U Orchids.

Both the dendrobiums and sarcochilus will grow and flower well under New Zealand conditions.

Flasks contain approximately 25 seedlings and are priced at \$45.00 each.

- 4192 Sarc. Melba x S. fitzgeraldii v. aemulus. Fine shaped whites or pinks, some with red centres.
 4227 Sarc. Mavis v S. hartmannii 'Blue Knob'. The Mavis is pink. These will have excellent shape.
 4232 Sarc. Mavis x S. ceciliae. Pinks are assured here!
- Sarc. Marion x S. accumer. Finks are assured nere:

 Sarc. Marion x S. hartmannii (Southern form). A yellow hybrid crossed with the yellowish form of the species.

 Sarc. Mision x S. falcatus. Top whites with red centres. Larger flowers.

 Sarc. Mavis x S. falcatus. Whites to pale pinks, large flowers.

 Sarc. Mavis x S. australis. A pink Mavis with a light brown australis with heavy striations.

 Sarc. Mavis x S. australis. This time a green form of australis was used. 4732
- 4908
- 4912
- 5068
- 5069
- Sarc. ceciliae x S. australis. Deep pink with a green australis.

 Den. Star of Gold x D. speciosum. Very large starry golden yellow. 5070
- 4640
- Den. Jombock x D. Goblin. Well filled in pinks. 4679
- Den. Hilda Poxon: Jill' x D. Andrew Persson: Floriferous creams and yellows. Den. x delicatum 'Cathie' x D. Andrew Persson. Large pinks on upright racemes.

AUSSIE DENDROBIUM HYBRIDS ESTABLISHED IN 5cm POTS

Den. Eureka 'White' x D. Sunglow. A large white with a large golden yellow. Excellent size and shape.

5cm pots \$8.00 each Den. Hastings 'Cathie' x D. Golden Fleck. A very large good-shaped pink with a golden yellow is expected to produce apricot shades.

5cm pots \$8.00 each Den. kingianum 'Firebeard' x D. kingianum 'Large White'. This cross was made to produce better shaped, large

flowered pale pink kingianums with full highly coloured lips. 5cm pots \$8.00 each

Den. Emma 'No. 3' x D. Delicate Falcon. Large blooms, well shaped blooms on upright inflorescences. Expect a range of pastel colours, possibly in peachy shades.

5cm pots \$8.00 each

Den. speciosum var. pedunculata x D. Goblin. Compact plants with many large flowers, full shape, apricot colours. 5cm pots \$8.00 each

Den. Jamie Upton x D. speciosum compactum. An apricot crossed with the florific compact yellow. Many large long lasting flowers in peach shades.

5cm pots \$8.00 each Den. fleckeri x D. kingianum. This should produce large salmon coloured blooms on compact plants.

5cm pots \$8.00 each Den. tetragonum x D. Gillian Leaney. These should be creams to yellows, with petal markings. Large star-shaped

5cm pots \$8.00 each

Den. Penny Ann x D. Goblin. Very compact plants with large well shaped pink to salmon blooms with darker lips. 5cm pots \$8.00 each

Den. Andrew Persson (D. speciousum x D. felcorostrum). A very popular hybrid coming in a range from white to yellow. Very floriferous large flowers.

5cm nots \$8.00 each

TAKE ONE OF EACH AND SAVE \$10! Ten Aussie hybrids for \$70.

All the above prices include packing, postage and GST. We accept payment by Visa and Bankcard. Just quote your Card Number and expiry date and sign your order. Send your order to:

and New Zealand Plant Labs. Ltd. P.O. Box 9661, Newmarket, Auckland



TWIN OAKS BOOKS

4343 Causeway Drive, Lowell, Michigan U.S.A. Phone: (616) 897-7479 MASTERCARD AND VISA

ORCHID BOOKS

Send for FREE descriptive list of just about 300 currently available Orchid Books . . . Sent Surface Mail anywhere in the world, postpaid!!!

The Phally House

TAUPO SPECIALISING IN PHALAENOPSIS Over 40 varieties to choose from Priced from \$6.00

Catalogue available on request

Recent Listings:

56 Phal. Zuma Sonnet 'Pink Cheeks' x Phal. stuartiana 'Larkin Valley' AM/AOS —small candy stripes on branching sprays.

57 Phal. Golden Amboin 'Brilliant' HCC/AOS x Phal. William Sanders 'Show Off' – peach to rust on branching sprays.

58 Phal. violacea 'Magenta' c Phal. violacea 'Malaysian Rose' — red Malaysian form.

Paphiopedilums

Insigne – small divisions to flowering size. Modern hybrids – \$9 N.F.S., \$12 F.S.

TREVOR NICHOLLS

33 Hinekura Avenue, Taupo Phone (074) 84-813 (Answerphone) VISITORS WELCOME

MacLeod's Exotic Orchid Nurseries

Mail Order Specialists



P.O.Box 4469 Christchurch New Zealand

We always have an interesting range of hybrids and species of most genera . . .

Miltonia, Cattleya, Dendrobium, Vanda, Paphiopedilum, Cymbidium, Odontoglossum, Lycaste, Zygopetalum, Phalaenopsis, Masdevallia, Coelogyne

. . . and lots more

If you are a serious grower or just starting you should be on our mailing list. Write today for your free copy of our current illustrated catalogue.

We ship year around and guarantee safe arrival, anywhere!

Nursery: 547 Harewood Road, Harewood, Christchurch Visitors are welcome by appointment

W.

Dennison Heating Propagation Panels

We distribute these panels throughout the North Island. The panels are of superior construction in fibreglass and are completely waterproof, have a built-in thermostat, need no transformer, are very reliable and economical to run. Sizes range from the tiny Mini Propagator to the large 5' x 2'6" commercial model. Ideal for deflasking, growing small seedlings and raising warm growing genera.

Discount to club members.

Enquiries to:

House of Orchids

145 Manuka Road, Auckland 10. Phone: 444-9771



ROWLAND & McCARLIE



Annandale Road
1 R.D., KUMEU, AUCKLAND

WE STOCK A REPRESENTATIVE SELECTION OF EXCLUSIVE CYMBIDIUM MERICLONES AND SEEDLINGS OF TOP QUALITY AWARD AND SHOW POTENTIAL.

Sole N.Z. Agents for:



TUDOR ORCHIDS

Ken and Patricia Elms
Greatford Road (State Highway One)
3 kms north of BULLS
Phone (0652) 48-966 (evenings)

Lists available for

Cattleyas and Odontoglossum Alliance

We also stock ex nursery only

Cymbidiums, Paphiopedilums, Phalaenopsis
Prime Orchid Mix, Microfeed

New Zealand Distributors for

Fordyce Orchids of America
For the finest in Miniature Cattlevas



Postal Address P.O.Box 103 BULLS Hours . . .
Tuesday – Sunday 9.00 a.m.-5.00 p.m.
Mondays by appointment only

NURSERY ESTATE FOR SALE KUMEU

New suncatching designed 165m² home with 40m² deck towards the sun, with 2/5000 GAL concrete watertanks, on six acres of good north facing land well fenced with three paddocks looking out over beautiful valley.

New 130m² Implement and Packing shed with office. Durolite Propagating house 100m² with FAN and heating cables.

2 Durolite Greenhouses total 280m²
 2 Plastic Tunnelhouses total 300m²
 Shadehouse 500m²

All groundswork done for more development. Beautiful shelter to South and West. All automatic watering system throughout with new clean waterbore, with 100m³ a day water-right. Extra 5000 GAL watertank for propagating house, ideal for orchid growing.

Home with 3 bedroom, 2 lounges and beautiful sarking ceiling throughout.

Include tractor, trailer and equipment. With or without stock.

\$370,000 neg.

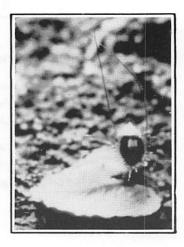
Phone owner: Auckland (09) 412-9921

WILD ORCHIDS TOUR

A first in New Zealand

Discover a dazzling array of the widest possible range of NZ orchids on a 9-day journey visiting the most spectacular regions of the South and Stewart Islands.

The beauty of our orchids is well known but few lovers of these delightful flowers know where to find them. Mark Hanger, botanist, and leader of many successful nature tours throughout the South Island will show you the grandest displays of these the most enthralling of our native flowers.



VISIT:

Hanmer Springs, the Buller, Arthurs Pass, Porters

Pass, Dunedin, Catlins, Stewart Island, the Eglinton

Valley, Te Anau.

SEE:

NZ representatives of Calochilus, Gastrodia, Thelymitra, Chiloglottis, Pterostylis, Drymoanthus, Dendrobium, Earina, Spiranthes, and many, many

more.

DEPARTS: Christchurch 25 November, 1987. Limited to just 12 lucky persons so be quick.

Write now for further information to

SOUTHERN HERITAGE 140 George Street P.O. Box 5177 Dunedin New Zealand Ph (024) 772-233 Telex 5235



STOP PRESS—a few seats are still left on our ever popular 10 day ALPINE WILDFLOWERS tours. Enjoy unbeatable variety of alpine flowers including Mount Cook lilies, wild spaniards, and a vast array of alpine daisies. Tours visit Southern Alps, Mount Cook, Remarkables, Te Anau, to name just a few. Trips depart December 5, 1987 and January 6, 1988.



GEOTHERM EXPORTS N.Z. LTD.

Japanese Marketing Exporters:

We are registered Japanese Importers of horticultural products specialising in cut-flowers, servicing the whole of Japan through:

Geotherm Japan

Tokyo

Japan

Geotherm Nippon Agency Osaka

Usaka Japan

Manager Mr T. Shimizu

Manager Mr N. Nishida

Growers:

Let us arrange your Exports:

Our two Japanese outlets service in excess of 50 cities or markets weekly.

P.O.Box 1030 Taupo

New Zealand

Phone (074) 84-591

Fax (074) 83-399



PORTRAITS OF NEW ZEALAND ORCHID SPECIES



Bulbophyllum tuberculatum Photography: Bob Goodger

This is a rarely seen species, perhaps because it is small and easily overlooked. It is a forest epiphyte, recorded mainly from the North Island. It bears short racemes of 2-4 dainty flowers in late autumn, small oval pseudobulbs, and smooth leaves, longer than those of the other much more common New Zealand member of the genus, *B. pygmaeum*. By comparison, *B. pygmaeum* has squat pseudobulbs, a small rough leaf, and solitary flowers.

In this photo, the plant nestles amongst lichen on a branch. Note the mosquito, apparently feeding from a flower.