WELLINGTON

EPIFLORA

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EPIFLORA

Volume 16 No. 2 **May 2007**

From the President

Dear fellow epiphyte growers

After an amazingly mild autumn when, not only our epiphytes, but almost all the plants in the garden became confused we now come into winter. Winter – a time when I would happily be like a squirrel or bear and hibernate, but also an opportunity to do some of the maintenance work in the glasshouse/shadehouse and garden. This is often the time we find ourselves repotting plants – not the ideal time, you might say, but when its raining outside its possible to stay dry and repot, prune or throw out plants that really have given up the ghost.

Since our change of name and expansion of plant base we now include vireya rhododendrons in our society and this is usually a particularly good time of year for their flowering. We had arranged to have a speaker on vireyas at the June meeting but unfortunately because of family illness his talk has been postponed until later in the year. Definitely worth waiting for.

Do remember that we are having our annual midwinter lunch in July when it is hoped as many members as possible will not only come but bring a friend. Also bring along your photographs of epiphytic plants and how about composing a poem or limerick to add to the fun! More details of these competitions will be found elsewhere in Epiflora.

During the coming months keep warm and maybe attempt to get up to date with the myriad of tasks related to your plants.

Happy growing

Jane Griffith

May 2007

The Programme for 2007

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

Those on duty are responsible for preparing the room, assisting with tea and tidying the room at the end of the meeting and bringing a plant or other item for the raffle. If for any reason you are unable to do your allocated duty please arrange for someone else to do it.

June 9th	Talk on Vireyas **On Duty**: Penny Luckens, Alice and Rex Hannam
July 14th	Midwinter meeting, pot-luck lunch photographic competition (categories for single flowers and groups), limerick or poem competition **On Duty**: Virginia and Jim Haylor, Marion Austin
August 11th	tba **On Duty:** Anne Goble, Jane and Roy Griffith
September 8th	Philately Botanica **On Duty**: Kaye and Merv Keighley, Alison Beeston

Photograph Competition - July Meeting

Don't forget the competition is for ....
a photograph of any one of the plants we study
a photograph of a group of the plants we study

NZ Native Orchids..

At our April meeting ***Phil Tomlinson*** *who is a member of the orchid society and one of the "Friends of the Botanic Garden" came and delivered a most interesting talk.*
What follows is a brief summary of his remarks – which were illustrated with numerous beautiful photographs.

Orchids are one of the largest plant families comprising over 30,000 species. They are found almost everywhere from the arctic to the equator. They can be found in deserts and in rainforest – there is even one that lives on cacti! Most orchids – particularly those with spectacular flowers – come from the tropics and are epiphytic. New Zealand native orchids are small and almost all of them grow on the ground. They have small (not to say insignificant) flowers. Most orchids are epiphytes not parasites – they grow on trees, though some grow on rocks and some few grow on the ground – mostly among mosses etc.

Most of the tropical "flashy" orchids can be easily grown – for example cybidiums and these are the plants available in shops. Most New Zealand native orchids are very difficult to grow in cultivation and the usual advice is not to try – but rather go to see them in their own environment.

Many orchids are pollinated by insects, often only one specific insect can pollinate a specific orchid both having developed to suit each other. Orchid seed is very fine and contains just the embryo and no food reservoir. Food is provided by fungi – this is a symbiotic relationship and without the fungi to convert starch to sugar the plant will not grow. The reason why most ground growing orchids do not survive in cultivation is that watering leaches out the fungus – and so the plant dies.

Of the orchids we find here a number are unique to New Zealand while some are also found in Australia and some are representatives of groups found more widely.

We have a small number of orchids that grow on trees; the plants are small and, growing amongst lichens and mosses, they can be difficult to see. Examples include: *Ichthyostomum pygmaeum*, *Earina autumnalis* (which sometimes grows on the ground and is highly scented) and *Winika cunninghamii*.

Pictures opposite: **Thelymitra longifolia** and **Earina autumnalis**

Most of our orchids are terrestrial. They are found in many habitats and are drab coloured and small (although a few are brightly coloured). Examples include *Pterostylis banksii*, *Pterostylis alobula*, and *Thelymitra longifolia* (this is one of the commonest orchids and is found throughout the country).

References:

nativeorchids.co.nz
NZ Native orchid Group
"NZ Native orchids" – by Ian St George

The Discovery of Epiphyllum Species.

Well this was the subject we had suggested ***Alison Beeston*** *would like to talk about at our May meeting. Actually she took a far larger canvas - and talked about a number of the early plant collectors and growers.*

I want to begin with a confession, followed by an apology. First the confession! It's well over forty years since I joined the Cactus and Succulent Society and I've belonged to this group almost from its beginning. I've even been President for a period and together Peter and I edited Epiflora for a time but I always attend meetings with the feeling that sooner or later you'll all realize just what a fraud I am and just how little I know about the plants the Society was set up to study. I am constantly amazed by the knowledge and enthusiasm of other members and feel more than a little ashamed that, after all these years, I am still so grossly ignorant and all I have to show for that time is a few motley epiphyllums and one small hoya and some snippets of knowledge. You can throw me out if you like but my preference is still for the "other succulents" and I come to these meetings more because of the people than the plants.

That's the confession, now the apology or initially the reason there has to be one. When I was asked to take this session I was given a subject -the Discovery of Epiphyllum species. I thought initially I would have a search through the various magazines and find articles about expeditions in which people would find plants and, while it would take a bit of work it would be a fairly straightforward task. It hasn't quite worked out that way. I did find immediately one article about the finding of a species 1'd never heard of and was surprised at how recent

that discovery was. I found it in a fairly recent Epigram, the South Bay Epiphyllum Society newsletter. South Bay, for those of you who don't know is in California and the plant, which is too recent to appear in any of the species lists I could find, is *Epiphyllum Baueri Dorsch.* In March 1999 Dr. Ralf Bauer visited Columbia and found pieces of epiphyllum stems in the branches of a shrub and hanging down from the fork of a tree. They didn't look like any of the known epiphyllums and it was finally decided that although it was related to some of the known species, particularly *E. cartagense* it differed sufficiently to be given species status. In his article about it Rudi Dorsch points out that collecting these plants required several difficult and strenuous hiking trips through dense rain forests in one of the wettest parts of the world. Few people inhabit the region and the dense rainforest can only be entered by walking along the beds of small cascading streams that flow down to the beaches. Rudi Dorsch used the discovery of this plant to refute the claim that there is no need to donate money to plant exploration now because all of the plants have already been discovered and disprove the statement sometimes made that money given for such expeditions simply provides for someone's vacation.

Finding this article so quickly was encouraging but unfortunately when I really got down to working further on the subject I found myself quickly at a dead end. I could make the excuse that this talk was put forward a month and other commitments made it difficult to find the time to spend looking through books and surfing the net and there's some truth in that but I suspect even with another month I would still have had the same difficulties. The real problems were partly that finding information on the subject is just harder than I anticipated and that my own lack of knowledge to start with proved to be more of a handicap than I expected.

At this stage I thought about just asking people to bring in species epiphyllums so we could look at them and see how and why they differ from each other and from the hybrids which are the plants that persuaded many of the members of the Hoya and Epiphytic Plant Society to start such a group and which keep them attending. The problem with that, as I soon found out, is that very few of you actually grow the species plants and the few who do do not seem to have plants to bring in. So I had to think again.

It was at this stage, when I was getting desperate, that the Griffiths offered to lend me the volume of Britton & Rose that covers epiphyllums. From the start I had wondered why I should be asked to talk to people who know more than I do, in one sense a heretic preaching to the converted, and I had even more doubts when Jane gave me such a buildup at the meeting last month. She mentioned then the talk I once gave to the National Cactus and

Succulent Society Convention as one of her reasons for asking me. Those of you who knew Peter would remember the enormous enthusiasm with which he approached everything he did. I both enjoyed and suffered because of that enthusiasm. When the Napier-Hastings folk were having difficulty finding a speaker that enthusiasm got the better of him and he volunteered me without telling me. I knew nothing about it until I received their letter asking me do it. That time I was allowed to choose my own topic and title and as the only two groups I knew much about had already been done recently I called the talk "Cactivities" using a word coined by Gordon Rowley, widely known in the Cactus & Succulent world for his expertise and his willingness to share his knowledge with anyone and everyone. That title allowed me to cover a wide canvas and talk about people who found and named plants or wrote about them or just collected. I enjoyed doing the research required for that talk and when I reread it the other day I had to admit I thought it hadn't been a bad effort.

But that was then and I was talking about a subject I was really interested in and had a husband to discuss things with and to help with the presentation. This time there's no Peter to help and I was given a much more specific topic -and that's where the apology finally comes in. From here on I will be looking more at plant finding expeditions generally and touching on a few related topics which interested me as I researched so it will be less about finding epiphyllum species and more about finding plants generally and naming and classifying them. So if you came expecting to hear about discovering epiphyllum species you may be disappointed.

First I want to say that one of the things that has become really obvious is that changing the name of the society is one of the most sensible decisions we've ever made. I hadn't realized until recently how few people have any idea what an Ephyllum & Hoya Society is. The Probus Book group I go to when I mentioned it couldn't believe I hadn't just made it up and for some reason found it hilariously funny. At a recent Probus group meeting there was a gift parcel to be raffled with a splendid epi flower adorning it and Anne and I were the only two people who had any idea what it was - even the person who supplied it had no idea. That raises the question not just of the ignorance of the general public but also the lack of knowledge of even knowledgeable plant people about these plants and where they belong in the plant family or why the Cactus & Succulent Societies so seldom mention them.

Epiphyllums are of course part of the Cactus family of plants. Most people you would imagine know what a cactus is - or do they? I had until recently a shelf of plants just outside my dining room window and I was amazed at the number of people who would look out at them and say "I do like your cacti. " They were without exception euphorbias and I'm sure

everyone here knows that while both cacti and euphorbias are succulents there is no relationship between the two and they belong to completely different plant groups and come from different continents. Having said that, I have to admit that many euphorbias do look more like the popular idea of a cactus than epiphyllums and other plants that have a right to the cactus name do. Cactus & Succulent Societies probably largely ignore epiphyllums because the few plants included in their collections are seldom species plants but almost always hybrids. In looking for material in the English magazines I found an article by a prolific and well known contributor to the English journal, Ron Ginns headed "Species versus Hybrids" in which he responds to some earlier comments on hybridization with a clear statement "As far as I am concerned the hybridisation of succulents can continue to be neglected". He then refers in particular to epiphyllums and questions whether it is valid to use that name anyway because the production of the hybrids we call epiphyllums is the result of crossing plants from several genera and therefore to name them for one particular genus is inappropriate. He suggests they might be called Orchid cacti and goes on to point out that they are not much of an acquisition to a cactus collection except when they are in flower. I have to admit I have some sympathy with his point of view. He concludes his article with the statement "With so many thousands of distinct succulent species to choose from why would anyone choose hybrids?" Most of you will regard that as fighting talk and go on growing the plants you love because you are fascinated by the flowers and I'm sure those who spend hours cross-pollinating in the hope of producing something different get a great satisfaction from the result. The point he makes about the naming of the plants though is a valid one and is echoed by none other than Dick Kohlschreiber in an article in "The Bulletin", the magazine of the Epiphyllum Society of America. In it he quotes Myron Kimnach, considered the leading authority on the genus epiphyllum as stating, "the epiphyitic cacti hybrids are not epiphyllums and in most cases not even epiphyllum hybrids". Most lovers of the plants accept the truth of the first part of that statement but have trouble coming to terms with the latter part and the suggestion that their plants are not even epiphyllum hybrids. Dick Kohlschreiber says he himself only became convinced of the truth of that statement after he had worked for five years on the revision of the "Directory of Species and Hybrids" for the Epiphyllum Society of America. He suggests that only 10% of all the hybrids have epiphyllum in them. The earliest crosses were between *Heliocereus* and *Nopalxochia*. Most who grow them are not really interested in the botanical arguments and just want to enjoy the plants and will probably continue to call them epiphyllums. Suggestions have been made that we should always use a lower case e when referring to hybrid rather than species plant or that we should add a note to indicate that they are horticulturally produced plants or maybe refer to them as Orchid Cactus. The fact is that all epiphyllum societies are more interested in the hybrids than the species and for that reason, if no other, it surprises me that the name of this

and similar societies continue to perpetuate the myth that they were formed to study epiphyllums. Botanists will continue to remind us of our errors and we will probably continue to ignore them but we do need to remind ourselves that without their efforts we would be in a right mess.

Which brings me back to Britton & Rose. I borrowed it when I was just about ready to give up already on this talk and it brought me back to the reason I was asked to do this to that "Cactivities" talk and to more familiar territory for me. I may not know much about epiphyllum species but I do know a little about Britton & Rose. Sadly we never managed to afford their four volumes but back in the days when we were most active in the Cactus Society they were regarded as the final authorities to whom everyone else deferred. It was for that reason that I included them in the "Cactivities" talk. They had done their share of searching for new species as well as working hard on the botanical work involved in deciding what plants belong in what genus and why. I'll come back to them again later but first, because this talk was supposed to be about "Finding epiphyllum species" I want to say something about the interdependence of those who find plants, the botanists who study them and the people who grow them. I first became aware of this when we were collecting South American cactus at a time when new plants were constantly being discovered and names being constantly changed as more was learned about them. We fell in a number of times, buying plants we thought were new only to discover we already had them under a different name. I became aware, too, as we got to know more that my own interest in the hobby increased as I learned about the people who contributed to my knowledge in a variety of ways. The history of the plants is as interesting as the plants themselves.

If I was surprised to find that new plants were still being discovered I was also surprised to find out how far back the history did go. People have been looking for new plants and writing about them for a long time. I still remember my excitement when I discovered that the first euphorbia was discovered back about the time of Christ. That's still my favourite plant story but this is supposed to be about discovering epiphyllums so I'll resist the temptation to tell it again but will simply say that the discoverer was a minor king, married to a daughter of Anthony and Cleopatra and that's a reminder of the wide variety of people from very different backgrounds and many nationalities who have found common ground and are linked in a variety of ways by their enthusiasm for learning about plants, in spite of the fact that they may live in different countries and even in different ages.

Because cactus come from the New World rather than the old expeditions to find them come much later. One fascinating story is that of a Spanish expedition which began in 1788 and

spent 15 years in Mexico, collecting and tentatively identifying thousands of plants. King Charles III sponsored it originally but unfortunately he died just before they left and with him went most of the finance. The fifteen years were a constant struggle not just to continue but to survive. Not only did they lack funds but also they had to cope with disease, dysentery and hunger. Still they continued, confident that in time their work would be appreciated and they would be suitably rewarded. Their plans to publish a monumental "Flora of Mexico" with drawings by Antonio Echeverria, one of their number, came to nothing and they returned to Spain to find work where they could. The Flora Mexicana material might well have been completely lost during the chaotic days of the Napoleonic wars had it not been for a Swiss Professor of Botany at Montpellier University, a man called Augustin Pyramus de Candolle (1778-1842). He seems to have been one of the few people in Europe who really appreciated what they had achieved. The drawings were left with him for a period by one of the expedition's leaders who later reclaimed them. He gave them back but before he did so hired 120 draughtsmen for 10 days to take precise tracings of the drawings on fine tissue paper. After their return to Mocino, their original owner, the herbarium species, the plants and the original drawings all disappeared but de Candolle's tracings remained and one set of them is now in the University of California. Since that expedition others have come from Europe to join those who already live on the American continent in searching for plants, finding and naming them.

Joseph Nelson Rose and Nathaniel Lord Britton came over a hundred years later and were Americans, each with their own distinct careers but linked forever and remembered mainly for their work on "The Cactaceae". Rose's interest in the plants began when he was assistant to an eminent botanist and cactus collector whose name is now forgotten. For many years he was assistant curator of the National Herbarium at the Smithsonian Institute but he also explored extensively in Mexico and California, collecting plants and looking for new ones. He got leave of absence from the Smithsonian to work with Britton on their book and he travelled to Europe to visit all the major herbaria, the botanical gardens and the private collections and then went on to the West Indies and through South America, from Peru to Bolivia, to Brazil, Argentina and Chile. On one of these visits he met and became friends with the German Alwin Berger, who said of him that one of his great attributes was his appreciation and lack of jealousy of the work done by others. Berger's wife tells a story of a visit Rose made to Berger in 1912. Unfortunately just before he was due Berger sprained his foot so was unable to show him around his collection. Instead his wife was instructed to bring as many of the plants as she could into the bedroom and Berger entertained his guest from his bed, with the room so full of plants his wife had difficulty getting in and out. They spent two days together and during that time Mrs. Berger had difficulty persuading them to stop talking to eat. According to her all they had to eat in those two days was an egg each. Rose's comment was that he could eat anytime but his time with Berger was too important to waste on meals. For days afterwards she said she was kept busy extricating spines from the blankets and upholstery. In spite of their opposing sides even World War 1 didn't dent

their friendship and the Roses sent food parcels to Germany which were most appreciated.

Nathaniel Lord Britton was three years older than Rose and his family had originally planned a career for him in the church but instead he took a mining degree, working first as a botanist and assistant geologist on a survey of New Jersey., then becoming botany professor at Columbia University and finally director in chief of the New York Botanical Gardens. His wife was a specialist in mosses and a great help to him in his work. Unlike the Roses they had no family putting all their time and energy into their work with the Botanical Gardens and with the study of plants. His joint work with Dr. Rose on The Cactaceae took 15 years to compile and it was the first exhaustive list of these plants. While time has invalidated some of their conclusions it's still widely quoted and they were the pioneers in the subject. He outlived Dr. Rose by several years and was honoured by being made the first life member of the fairly newly formed Cactus & Succulent Society of America shortly before his death in 1934.

Whether the Spanish expedition actually found any of the epiphyllum species plants I do not know although certainly they are to be found in Mexico, but if they did they would probably not have used that name for them. It was in 1812 that the English botanist Adrian Hardy Howarth decided that some of the plants previously listed simply as cactus or *cereus* or even *opuntia* were different enough to be separated out under the new heading epiphyllum, a name which had been used a year earlier by a man named Hermann for a plant he called *Epiphyllum americanum*. For a while there was some confusion over whether they should be called phyllocactus, but it was finally decided that the name epiphyllum took precedence. Both names perpetuate a misunderstanding because they both mean leaf cactus and of course what the early botanists considered leaves were not that at all. Epiphyllums, like all cacti are stem succulents not leaf succulents. Unlike some of the other people mentioned Haworth never left England and was not interested in finding new plants, only in describing them and fitting them into the right plant families as he understood them. He lived from 1766-1833 and died of degenerative cholera, not one would assume a pleasant way to go. He was married three times and had children from each of the marriages but his obituary expresses sorrow that none of the children continued his work. His other interest was moths. In his day he was obviously very highly regarded for his botanical knowledge and the succulent genera Haworthia was named after him.

Finding out how many species ephyllums there are also proved difficult. When Haworth established the genera he referred to only one plant (*E. phyllanthus*) formerly listed by Linnaeus as *Cereus phyllanthus* and later for a while referred to as *Phyllocactus phyllanthus* while another botanist called it an opuntia but he later added one other, *Epiphyllum truncatum* which was eventually found to belong to a different generic species. In 1890 K. Schumann recognized 15 species, while Britton & Rose list 16. The 1996 edition of the Epiphyllum Society of America directory brings the number back to 12 and more recent articles quote

varying numbers as botanists find new plants and continue to argue about what constitutes a species and what are only varieties of an already known species or shift plants from one genera to another. It sounds confusing and it is but not half as confusing, as it would be without the work they do. The more I read the more I am I intrigued by the detective work necessary to find things out. It's interesting to look at the dates and names alongside the species names in Britton & Rose. The dates do give some clues as to when the plant was discovered. *Epiphyllum phyllanthus* for instance was first mentioned by Linnaeus in 1753 as *Cereus phyllanthus* and has been known by 11 different names at different time; sometimes being considered an opuntia, sometimes a rhipsalis as well as a phyllocactus or a cereus. Some botanists have obviously considered the place of origin important and have added words such as paraguyenis, or boliviensis or columbiensis. .

Let me end by saying thank you to the committee for asking me to do this. I'm left with more questions than answers. For instance fairly early in the piece I made a note from somewhere that there was only one species epiphyllum that does not have white flowers and that was *Epiphyllum ackermanii* which has red flowers. I tend to believe what I read, although I should know better but later when I looked at Britton & Rose and the American Epiphyllum Society directory there's no mention of such a species, so does it exist or doesn't it. That's another of the "don't knows" All the same I've enjoyed the excuse to explore again and to glimpse again the fascination of a hobby which has so many facets to explore.

The man who named things....

On his 300th birthday, we still use much of the classification system for organisms developed by the Swedish naturalist Linnaeus. This article was written by Matthew Cobb, a life sciences faculty member at the University of Manchester, who is the author of "Generation: The 17th Century Scientists Who Unravelled the Secrets of Sex, Life and Growth."

On May 23rd in 1707, the man who invented the terms Homo sapiens and Cannabis sativa was born in southern Sweden. At the age of 28, Carl Linnaeus published a small book called "Systema Naturae" - a system of nature. Although it was only 14 pages long, with a limited circulation (only 29 copies still exist), this book changed the way that humanity looks at the natural world.

Linnaeus' little book provided a simple way of classifying organisms (is it an insect or a mammal?) and of naming them (Homo sapiens). Although the details of the naming system we use have changed substantially - Linnaeus divided the natural world into three

kingdoms (animals, plants and minerals); scientists now talk of five kingdoms - Homo sapiens is still Homo sapiens.

Linnaeus proposed a hierarchical scheme in which each organism could be described in terms of its kingdom, class, order, genus and species - from the broadest category to the narrowest. By using Latin - the common scientific language of the time - Linnaeus was able to bypass the myriad folk names for animals and plants that made comparison of information from one country to another so difficult. He also integrated the growing conviction that like bred like, putting species at the heart of the natural world.

Above all, Linnaeus argued that organisms should be classified on the basis of a small number of physical characteristics rather than, say, their habits (this animal flies, that one swims) or their use (these plants can be eaten, those are good for medicine). In the case of plants, Linnaeus used their sexual organs to distinguish one species from another. This not only led to a more effective classification, it also inadvertently provided 18th and 19th century ladies with a discreet way of initiating themselves in the facts of life.

By the time "Systema Naturae" reached its 10th edition, in 1758, it named 4,400 species of animals and 7,700 species of plants, using Linnaeus' hierarchical scheme.

Curiously, the content of the book was as dry as this description suggests - there were no glorious prints identifying wild and wonderful creatures; it was simply a list of names. But its simplicity was what made it so successful. "Systema Naturae" was effectively an index to all those books that did have marvellous pictures of animals and plants. Linnaeus provided natural historians with a way to compare and integrate all previous knowledge and to build on that knowledge when new, bizarre animals, such as the duckbilled platypus, were discovered.

Linnaeus' objective was to reveal the order in God's creation. Contemporary scientists use Linnaeus' system to understand something that would have been deeply shocking to the young Swede: how species have evolved.

Now that evolution is accepted, classification (how to describe an organism) also implies phylogeny (how it came to be where it is on the tree of life). This means that, for example, you are more closely related to a goldfish than a goldfish is to a shark (the shark, which has no bones, split off from the branch of life that led to the evolution of bones, which we and the goldfish share).

Humans have an obsession with classification and connections - hence the perpetual reorganizing of Linnaeus' system that has gone on over the last 270 years. But the only groupings that have any biological meaning are species and individuals. Kingdoms, phyla, genera and all the other categories beloved by Linnaeus' descendants are merely a

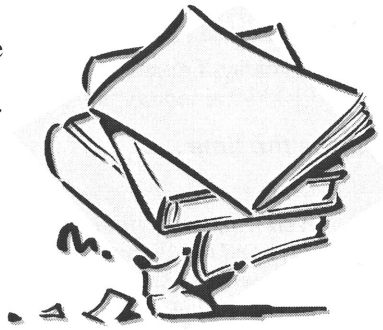
description of the pattern we think evolution followed, rather than something linking organisms in today's world. The only thing that links lions and humans as mammals is that we have a common ancestor somewhere deep in the evolutionary past.

The magic of evolution is that the massive differences that exist between the organisms we can now see on the planet - between bacteria and humans, between dogs and snakes - all began with tiny changes, as one individual showed a slight advantage over another. Over the immense expanse of geological time, amplified by the power of natural selection, these tiny differences gradually led to the myriad varied life-forms we see today.

Where Linnaeus saw order and logic, we now see a dynamic endless process, and certainly no insight into the mind of God. That is the fate of many influential discoveries - they become important not for what their discoverer intended but for what we can do with them. On his 300th birthday, Linnaeus would no doubt be surprised, but proud, of the use we make of his system of classification.

Further reading

Our Society receives journals from a number of other societies with similar interests. These journals are all available from our library. In the last couple of months a number of interesting items have been published. Here are some snippets that you might find interesting. (Of course you really should go and read the articles for yourself!)



In the May issue of **Epi-Gram** (South Bay Epiphyllum Society) Dick Kohlschreiber keeps on the "cold" theme - and discusses the idea that an unusually cold winter may be the precursor to a better than usual bloom season. As we head into winter - this could be a timely article!

In the "Winter" issue of **The Bulletin** (Epiphyllum Society of America) is an article entitled "Epi Blooms and Grow Lights" which discusses the characteristics of lights that can be used - and suggests ways in which they could be used.

In the March Issue of "**Epi News**" (San Diego Epiphyllum Society) Linda Sinkovic writes about a visit to the nursery of one of the noted Japanese hybridisers of epiphyllums .

The March issue of **EPIG** (mainly in German - but with English abstracts) has an article discussing "A promising new method for the successful cultivation of *Hatiora rosea*"..

And finally - the January-March issue of "**Fraterna**" (the bulletin of the International Hoya Association) has a long article on *Hoya australis* - which discusses the way the various sub-species have developed

Happy reading.!

Plants wanted (and for sale) .....

As more and more of our members live "out of the Wellington area" but are still interested in obtaining and exchanging plants this section may provide a means of putting those with the plants in contact with those who would like them. E-mail details only are given - but if you need further contact details - please contact the editor. If there are plants you would like to obtain - please contact the editor.

Pictures opposite:
Winika cunninghamii and **Pterostylis banksii (Hooded Orchid)**

Wanted - Epicacti "Pegs Orange",Patrician, Clown, Myrah, and Serena reese - contact Frances Hunter (franjron@xtra.co.nz)

Now is the time .....

Well winter is definitely on its way. In Waikanae we have had quite a few warm days and nights recently - but we have also had some cold nights - 7 °C has been the lowest so far so it is wise to play it very safe - water in the first part of the morning - before the sun gets too hot; and be careful about leaving water drops all over your plants. And as always - what you should be doing right now depends not a little on exactly where you live. Here are some suggestions for the Wellington growers. If you live in Wanaka or Waihi you may need to adjust things a little.

Epicacti - it is still work time - so you can prune and repot as necessary. Water with the greatest care and do it early in the day.

Hoyas - It is probably best not to water at all unless the plants look really dry (unless your plants live somewhere where it is warm at night). Some days are still very warm so keep checking for mealy bugs and other pests and deal with any you find promptly.

Schlumbergeras - enjoy the flowers and water sparingly when the plants seem dry.

Rhipsalis - water very sparingly - otherwise leave well alone.

Aporophyllums - water infrequently. If you have not already done so you may prune lightly - and even repot a plant or two if you are brave.

Ceropegias - no more water now (unless a plant looks really dehydrated). If that is the case give only a small amount of water on a fine morning. The stems of some varieties die back entirely at this time of year - and these do not need water. Continue to check for pests and deal with any you find immediately.

Orchids- The general rule is to ease back a little on the watering in the winter. The exceptions are: *Dracula* keep watered at all times; And warm growing *Dendrobiums* need a dry spell to flower well. *Phalaenopsis* need to be watered but left to dry out in between waterings as do *Paphiopedilums.*

The Library .....

Alison Beeston is our Librarian. She is working on updating our library list and we hope to provide copies of the up to date list with the next issue of Epiflora if not before. Meanwhile - if you would like to borrow one of our library books or journals ring or e-

mail Alison and she will bring it to the next meeting for you. If you live out of Wellington we can send you photocopies of articles from journals (at a price of 10 cents per sheet) or we can send you books by courier. Please send a fee of $5.00 to cover shipping - and we will include a return courier pack with the book. Alison's phone number is 04 9049848 and her e-mail address is: abeeston@paradise.net.nz.

Odd cuttings and seeds

Weed Control.

Well we all know about "Round-up" but here are a couple of less radical options for dealing with weeds:
Hot water - that's right - just pour on boiling water - you can't say that is not an organic remedy!
Vinegar - again just pour it on. The purists would say it is not a natural remedy - but it won't pollute the ground-water.

Imacloprid

Some of us are fans of this product. It is a systemic pesticide which will deal with mites, mealy bugs and scale. However everything has its problems. Imidacloprid is nicotine-like and (like nicotine) is a nerve toxin. The Journal of Pesticide Reform ran an interesting article on imidacloprid about 5 years ago :

http://www.pesticide.org/imidacloprid.pdf).

While imidacloprid seems generally about as toxic as caffeine is (when ingested orally) for mammals, it appears to be 5- or 10-fold more toxic than that for many birds and for fish, and even more toxic for many invertebrates (including bees).

And again we say ... "Send us your lists"

Your plant lists that is. We all know how difficult it is to get new plants. There are few specialist suppliers and the average garden centre has next to nothing. Of course any of us would provide a cutting or plant to another member - but how do they know we have the plant?

The committee has thought about this problem and has decided to ask all members to send a list of the plants of interest to the society that they grow. We will collate these lists - and publish the combined list. Then when you want a plant - you can ask for it. Please start preparing your lists now.

Send them to"The Editor" - and I will pass them on.

Back numbers of "Epiflora"

The first edition of **Epiflora** appeared in March 1992. We have limited stocks of back numbers for most issues from Volume 2 (March 1993) onwards. Ask the editor for details.

Future Publication Dates..

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