WELLINGTON

EPIFLORA

Volume 16 No 1

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EPIFLORA

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From the President

Dear fellow epiphyte growers

At our Annual General Meeting in December it was decided that the name of our society would be changed to the Wellington Hoya and Epiphytic Plant Society. There were several reasons for this decision, all relating to a desire to expand our plant base which it is hoped will provide even greater interest for our existing members as well as encourage new people to join the society. The change in name means that our society now encompasses aporophyllums, bromeliads, epicacti, hoyas, orchids, rhipsalis, rhipsalidopsis, schlumbergeras, tillandsias and vireya rhododendrons. As you can see this is quite a wide range and I well might have missed something out!

During this year programmes have been planned to include some of our new interests and there will be articles on a range of these plants in Epiflora. The Committee are planning ways to advertise the change of name and to encourage people to join the society. It is hoped that we can offer a wider service to those of you who live outside the Wellington region – you will read details about the first initiative in this edition and the June Epiflora will provide further information.

In the meantime if you have suggestions of how we can go forward and provide even more help to each other please let the Committee know. It would also be good to hear how members in other parts of the country are growing their plants – to celebrate with you your successes and commiserate on those plants that don't survive.

Happy growing

Jane Griffith

February 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.

February 10th	Programme on Hoyas **On Duty:** Virginia Stead, Jim Hayler, Penny Luckens
March 10th	Epiphytic Bromeliads **On Duty:** Isobel Barbery, Anne Goble, Lois Bond.
April 14th/15th	Cactus Display at Malvina Major Retirement Village (*we have been invited to participate as well*)
April 14th	Introduction to NZ Native Orchids **On Duty**: Phylls and Bruce Purdie, Dianne O'Neill
May 12th	to be confirmed **On Duty**: Brian Read, Nola Roser, Robyn Gibson
June 9th	Tales of the discovery of Epiphyllum Species
July 14th	Midwinter meeting, pot-luck lunch photographic competition (categories for single flowers and groups)

Epiphytes.

As our society has changed its name to give more emphasis to all epiphytes it is appropriate to consider the generic attributes of this group of plants. ***Penny Luckens*** *has written this article to assist us.*

These comprise about 28,000 species in 65 families worldwide. Rainforests in the Americas and in Southeast Asia are the richest in epiphytes while African rainforests are the poorest. They are aerial plants which use branches for support; and provide homes, food and drink for countless other animals. One large bromeliad was home to more than 15 species – and there were numerous unidentified beetles – ranging from earthworms, centipedes, woodlice, harvestmen and spiders, pseudoscorpions, fly larvae, beetles, earwigs, cockroaches, peripatus and a frog.

Epiphytes have been regarded as cutting off light from the tree leaves and burdening them with extra weight that may cause their branches to break off. Do they provide any benefit to the trees? It seems that trees with epiphytes also have canopy root systems. Epiphytes are able to capture both dust particles and nutrients dissolved in rain, thus keeping them up in the canopy. The dusty dry season in West Africa coincides with the rainy season in western Amazonia and the epiphytes there scavenge the mineral nutrients from the air, helped by the mycorrhizae of the epiphytes.

Canopy root systems were first found in temperate rain forest in the Olympic National Park near Washington, by Nalini Nadkarni. She later found similar systems of roots in cloud forest in Costa Rica, in Papua New Guinea and in New Zealand.

Why do some trees or some parts of trees lack epiphytes? Some tree barks flake off taking any epiphytes with them but some trees with flaking bark have many epiphytes. Ants are known to prune or weed small seedling epiphytes from certain trees thus keeping them clear of epiphytes which might otherwise provide host plants for different, perhaps hostile, ant species.

Having or hosting ants on your plant may be a mixed blessing. *Myrmecodia* plants are full of hollows colonised by *Iridomyrmex* ants. These ants bring insect carcasses from the forest floor into the plant chambers and feed from the fungal gardens they cultivate on these decaying heaps. Nutrients released from the decay are absorbed by the plant rootlets. However all this nutrition gained by the plants from the labours of the ants comes at a price.

Many insects are known to be plant pollinators but ants very rarely fill this role. Ants are now known to smear themselves with myrmicacin, a powerful antibiotic probably designed to prevent disease breaking out in the colony. Pollen grains which come into contact with it die within minutes. *Myrmecodia* flowers are small, white and rarely open. The pollen grows directly from stamen to style, dooming the plants to self pollination and thus reducing diversity. Perhaps this also locks them into an evolutionary dead-end.

The First Meeting of the Year..

As has happened for a few years now our January meeting took the form of visits to gardens and collections and finished with a barbeque. ***Virginia Hayler*** *writes about the places we visited this year. Many thanks are due to* ***Kaye Keighley*** *who had organised it all...*

The day dawned fine but looked like it might rain; so I phoned Roy to check the garden visit was still on.. It was and by the time we reached the Kapiti area it was very hot and fairly muggy.

We were met at 62b Eatwell Avenue in Paraparaumu Beach by Adrienne and her two dogs CC and JJ and then we walked through the lovely peaceful park like garden and on to view the wonderful railway circuit that Colin had landscaped into the garden. The dream of every boy; no matter what age, from two to 102, (and quite a few girls too) to see the train running....or to sit on the bench seat and admire the beautiful yellow roses.

Then we moved in to the museum and were amazed by the collection of trains, matchbox vehicles, ancient coins and dolls and more things (too many to itemise) .. I have never been one to care much for dolls but the wind-up babies really took my eye.. you could almost imagine they were alive.

It was then time to move on but we all promised ourselves we would return to see the constantly changing scenery around the train circuit.

Next stop was Alice and Rex Hannam's place in Kaka Street on the east side of Waikanae. Here we were treated to a wonderful tidy garden with flowers everywhere. I heard someone asking Rex what he does in his spare time.. with a garden like that who would have spare time!

Most people were drawn to the cool shade in the garage where Alice saw to the needs of the inner man (and woman) and provided an afternoon tea well up to her usual standard. I am sure the Women's Institute members would all agree that her fruit cake was first class.. maybe we could see a copy of the recipe in a later journal.

Every time I visit this garden I find something new to me.. this time it was a delightful pale pink flower growing from a bulb, squeezed in front of some dwarf iris, .. commonly called a 'Rain Lily' real name Zephyranthes. I will have to look for this one in the garden catalogues.

Later we moved on to Jane and Roy's garden on the west side of Waikanae ..where we walked round and admired things at our leisure and then settled in chairs outside to chat. I wonder if anyone else finds that the only time you can do this is when visiting other people. Somehow one is always too busy doing something else when at home.

Early in the evening there was a sudden burst of wind and it looked like we might be in for a storm but it blew over and nothing came of it.

Here we sampled the meat and fish cooked by the men on the barbeque and enjoyed trying the salads that everyone had brought; followed by a delicious dessert. Now I know what to blame on Tuesday when I go to Weight Watchers and have put on weight.. The delightful day I spent with The Wellington Hoya and Epiphytic Plant Society.

Growing Hoyas.

*At our February meeting **Jane Griffith** talked about hoyas. As well as discussing the natural habitats of these plants, emphasis was also placed on how we can grow and propagate them.*

The genus *Hoya* was established in 1810 and named after the botanist, Thomas Hoy who was head gardener to the Duke of Northumberland at Syon House, London from 1788-1809. There is no record that Thomas Hoy grew any hoyas himself but it is known that rare and unusual plants fascinated him.

In their natural habitats hoyas are found from Sri Lanka in the west to China, Vietnam, Laos and Cambodia in the east. They are also found on numerous islands - Okinawa in Japan, Taiwan, the islands of the Philippines, Indonesia, Borneo, Celebes, and New Guinea as well as some Pacific islands – Fiji, Tonga, Samoa, New Caledonia and New Hebrides. Hoyas can also be seen in the tropical rainforest of Queensland, Australia.

This vast geographical distribution covers an extensive climatic range especially when one considers hoyas are found on mountain slopes, valleys, coastal plains, canyons and other locations, each with their own micro-climate. From steamy, hot forests on islands close to the Equator to the cool mountain slopes of the Himalayas hoyas grow.

Over 200 different species of hoya have been discovered to date with more being added every year. Numerous botanists and hoya enthusiasts make excursions into remote parts of Asia and the Pacific where they find previously unknown hoyas. Returning to their own countries they hope that the field-collected samples will survive, grow and flower and prove to be different from previously known plants.

Although my comments so far suggest that a New Zealand hoya enthusiast could grow a huge number of different hoyas this is not in fact the case. Firstly, it is important to grow the hoyas which suit the climatic conditions in which you live, unless you are prepared to heat a greenhouse in winter. Secondly, these days it is extremely difficult, and costly, to import new species of plants into New Zealand. Many of the hoyas that are discussed in Fraterna, the journal of the International Hoya Association, are not available in this country. Therefore we are limited to those hoyas which already exist in New Zealand - fortunately there is quite a large number.

Hoyas are not only grown for their beautiful flowers but also for the wide variety of leaf types - some thin, others thicker; some very small leafed like *Hoya bella or Hoya bilobata*, others with much larger leaves e.g. *Hoya meredithii or Hoya loyceandrewsiana*. The colour of the leaves differs from plant to plant as does the veining on the leaves.

A frequently asked question is how easy is it to grow hoyas? Naturally the answer to this question must take cognisance of where the natural habitat is of the hoyas you are wanting to grow. If one plays safe and keeps to growing hoyas found in cool places they are easy to cultivate. If on the other hand a person is wanting to grow hoyas from Indonesia or another tropical location the answer is great care is needed especially in winter when warm temperatures have to be maintained throughout day and night.

Like most epiphytes hoyas require good ventilation. Many of them, in their natural habitats, grow on the sides of trees and therefore have constant air movement. Generally they prefer filtered light to direct sunlight and require free-draining, porous soil. Epiphytes in nature grow in very little soil - leaf litter, humus, decaying bark and animal manure which has accumulated between branches of trees. Therefore when we grow our hoyas it is important we grow them in small pots, allowing them to become root bound before repotting. A porous potting mix is essential - standard potting mix with the addition of bark and either vermiculite/perlite or sand will provide this.

Hoyas do not enjoy being dry for long periods in summer therefore should be watered once the soil is beginning to dry. Whereas in winter extreme caution is needed – water only minimally and then in the early part of a day which is going to be warm and sunny.
Take care to avoid leaving water on the leaves if it is a sunny day as some hoya leaves burn easily.

What of fertilising hoyas? The answer here is do so cautiously - maybe a little slow release fertiliser in the potting mix when repotting or occasional watering with a weak solution of a liquid fertiliser such as Phosphogen. It is wise not to fertilise at all in winter.

As hoyas are grown in a warm, well-ventilated environment it is not surprising that they occasionally have to contend with pests, the main one being mealy bug which thrives in warm conditions. Some people also have problems with scale. Your usual cure for these pests can be applied to hoyas – whether it is an organic solution or chemical warfare. The only cautions are to attack the problem on a cloudy day to avoid the plants being burnt and if using chemicals take all the necessary precautions.

Few hoyas are available for sale in garden centres therefore if one wants to expand ones collection or be able to share your plant with others it is important to take cuttings. Ideally cuttings should be taken in September-October to allow them plenty of time to root and grow during the warm summer months. If you have a heat pad cuttings can be taken later in the season.

The photographs show how cuttings are taken. As with all plants take cuttings from healthy stock. Each cutting should consist of a small amount of stem with two leaves. If the leaves are medium-large they should be cut to at least half their size – this ensures that the energy is not put into trying to maintain the leaves but rather into growing roots. Once the white sap has dried the cutting should be dipped in rooting hormone and then placed into propagating sand. The cutting is then best placed in a container on a heated pad and the container always

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Preparing Hoya Cuttings

The two pictures opposite illustrate the essential points:

1. cutting the stem just above a pair of leaves - and then four or five centimetres below them.
2. reducing the size of the leaves - by at least half.

kept moist. In this way the hoya cutting itself will be provided with sufficient moisture to encourage root growth and later leaf growth without causing it to rot. If the cutting is taken in early Spring it can remain on the heated pad in the propagating sand until the following Spring when it should be ready to be repotted into a small pot.

Good luck with your hoya growing. It would be good to hear how people grow their hoyas and any problems they experience.

Know your Natives.

Since we have widened the rang e of plants our society focuses on - it seems appropriate to learn more about some of our native New Zealand epiphytes.

Tmesipteris is a small genus with only 2-3 species. It has a restricted distribution & is only found in Australia, New Caledonia & New Zealand. One of the species *Tmesipteris elongata* typically grows as an epiphyte (perched on another plant, which is usually a tree fern). The aerial stems are pendulous, with leaves spirally arranged. The leaves are 0.4–1.6 in (1–4 cm) long. The spore containing capsules are found on the stems.

This is a fern ally, a primitive plant with a longer fossil history than a fern. It is found in North, South, Stewart and Chatham Islands, New Zealand, in lowland to montane forests.

We saw lots of these plants while on the bush walk at Nga Manu bird sanctuary (in Waikanae)

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!)

This months issue of **Epi-Gram** (South Bay Epiphyllum Society) Dick Kohlschreiber writes about the damage that can be done to epis and hoyas by frost (a little early for us - but he also talks about preventive measures you can take). One of the gardeners at Liddle's nursery told us that the first thing they did the morning after a frost was to turn the sprinklers on very early - to melt off any frost or ice before the sun reached the plants.

In the October Epigram Dick mentions the web-site www.ELMIRA-Epis.de; this is the site of a German epi nursery and as well as having pictures of some of the plants they have for sale they have brief biographies of some of the German hybridisers.

In the "Autumn" issue of **The Bulletin** (Epiphyllum Society of America) is an article entitled "What's in a Name" which gives some of the history of the names given to plants by their hybridisers.

The November issue of **EPIG** (mainly in German - but with English abstracts) is a superb production with lots of wonderful pictures of plants - and also some of the habitat some in which they grow. There is also an article on Paul Fort and Garland O'Barr.

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. This editions list is the same as last time as there have been no new requests.

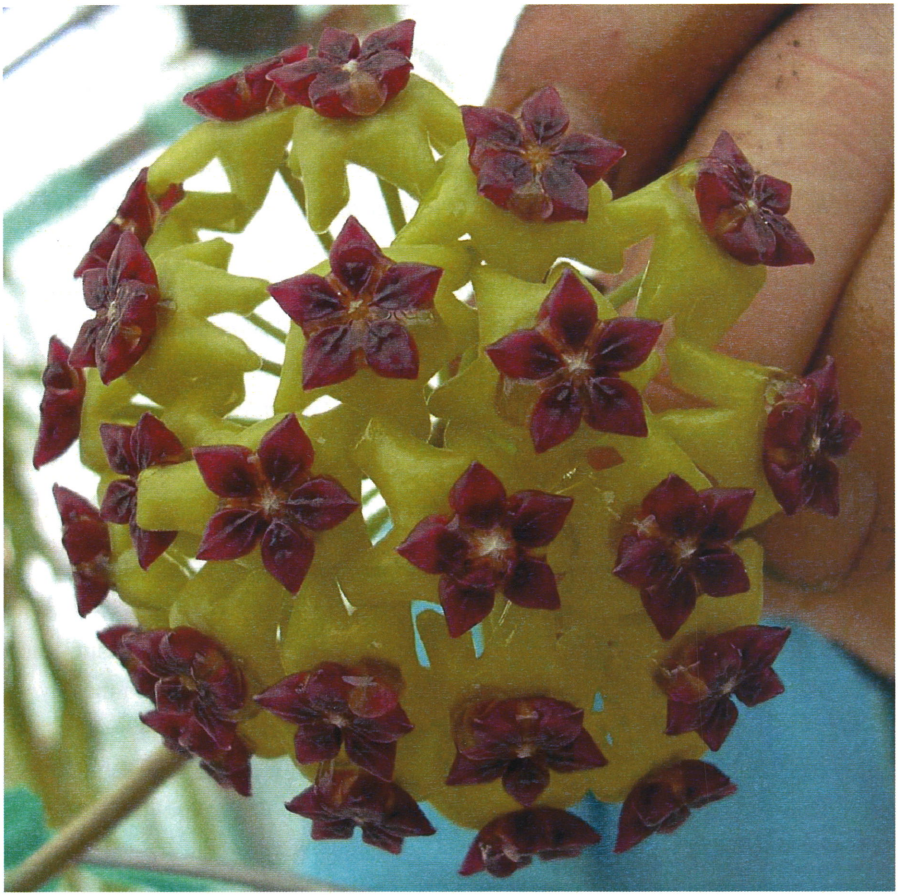
Wanted- Hoya "Shooting Star" (*H. Multiflora*) - contact Margaret Tait, (kirillystone@hotmail.com)
Wanted - *Epiphyllum phyllanthus* - contact Gordon Collingwood (gdcs@kol.co.nz)
Wanted - *Epiphyllum thomasianum* and *Epipyllum embukayuku* - contact Frances Hunter (franjron@xtra.co.nz)

Subscriptions 2007 .....

Our society's year runs from January to December so it is well past time to pay subs for the current year. This year the subscription remains at $12.00 for New Zealand members (and $4.00 for associate members at the same address). If you have not yet paid - you will find a membership reminder slip included with this issue. Alice Hannam (our treasurer) would love to hear from you.

H cinnamomifolia

This spectacular plants is a native of Java. It has large olive green leaves with silvery veins. The flowers have lime green petals and the centre is cranberry red. Picture by Jane Griffith



Now is the time .....

Oh what an odd growing year this has been, spring autumn and winter seem to have been alternating with great speed - however summer days are now with us (at least for a little, so both day and some night-time temperatures are rising (though occasionally it can be cold). It is probably 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 Raglan or Rolleston you may need to adjust things a little.

Epicacti - it is time for work! The flowers are all but over for the year (though species plants may still be flowering) - so you can prune and repot as necessary. Take cuttings if you wish (don't forget to write the name on the cutting). Cut away old growth as well as any damaged or diseased stems and encourage new growth from the base of the plant. Keep an eye out for pests and spray as necessary. Water regularly - preferably early in the day.

Hoyas - enjoy the flowers, water when dry. Keep a wary eye out for mealy bugs and other pests. It is probably now too late to take cuttings (unless you are going to provide artificial heat)..

Schlumbergeras - fertilise and water carefully when the plants seem dry.

Rhipsalis - reduce watering. Prune and/or repot if you wish.

Aporophyllums - water less (or at least more carefully). Now flowering is over you may prune lightly - and even repot a plant or two if you are brave.

Ceropegias - enjoy the flowers. Water when dry. Keep up the daily task of unwinding runaway growth. Keep in a very warm environment for maximum flowering. Check for pests very frequently and deal with any you find immediately. If a plant still looks dead by this time it probably is so you can now throw it out!

The Library .....

Alison Beeston has taken on the role of Librarian. She is in the process of updating our library list and we hope to include copies of the up to date list with the next issue of Epiflora. Meanwhile - if you would like to borrow one of our library books ring or e-mail Alison and she will bring it to the next meeting for you. Alison's phone number is 04 9049848 and her e-mail address is: abeeston@paradise.net.nz.

Odd cuttings and seeds

New Website for our society.

Our Society has a new web-site address. Andrew Flower set up our first presence on the net - as part of his own site at Anwyl.com. Virginia has now set up pages for us - you will find them at ***www.epihoya.freewebsitehosting.com*** Do visit them. Virginia would be happy to get suggestions on what other material should be on our web-pages. Thank you Andrew for the original idea and for the work you did to set up the first pages. Thank you Virginia for the work you have done on this new version of our website.

Microwaves can be marvellous

We have written in the past saying how soil can be sterilised by a quick "Zap" in the microwave. Apparently the idea has caught on. Microwaving a kitchen sponge for just two minutes can kill 99% of living pathogens according to a US study

published in the Journal of Environmental Health. Around 1.3 million people in England and Wales are estimated to suffer from food poisoning and sponges and dishcloths are a common source of pathogens that cause food poisoning. However the Shropshire fire service has been warning of the downside. The advice has always been to microwave **damp** cloths (and soil), the Shropshire fire service has had to deal with the consequences of zapping **dry** cloths. Moral - don't forget the water!

Darwin's dream flowers

The flowers referred to are NZ Native orchids and there is a delightful article with this title (and some beautiful photographs) in the latest edition of the Forest and Bird Journal (Number 323 - February 2007) .

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 their plants to the society. 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.

Time for a new logo?

The observant among you will have noticed that this issue of Epiflora still has the old WEHS logo on the cover and the frontispiece. Clearly we need a new one.

Morris Tarr designed the WEHS logo in 1992 - let us hope that the WHEPS logo will last as long. You are invited and urged to get your thinking caps on and your pencils sharpened. Entries and suggestions please - before 12th May 2007. *(The committee may even see its way to awarding a modest prize..... **Ed**).*

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..

EPIFLORA is published quarterly by the Wellington Hoya and Epiphytic Plant Society.

Comments and contributions are most welcome. The society aims to encourage discussion and debate; opinions expressed are those of the authors and do not necessarily represent those of the society. It is the policy of the society to publish corrections of fact but not to comment on matters of opinion expressed in other publications All material in Epiflora may be reprinted by non-profit organisations provided that proper credit is given to WHEPS, Epiflora and the author.

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