EPIFLORA

Volume 14 No. 3

September 2005

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President's Letter

Dear fellow epiphyte growers

Its Spring! What a beautiful time of year with the daffodils in full flower, magnolias looking great and blossom coming on the fruit trees. As I look out of the study window there is a mass of colour under our big tree – cyclamen in various hues, cinerarias – both large and small, a kowhai full of flower and plenty of daffodils. I so love this time of year when you can almost see the buds on the trees swelling ready for leaves to unfurl.

The last three months have rushed by and as you will read in other parts of Epiflora we have had a wonderful variety of programme items and now this month look forward to hearing about growing daffodils. You will note that we are planning a trip to Cross Hills on Saturday 29 October - do hope that you are planning to come on this visit – more details on another page. This visit will take the place of our November meeting when the Hutt Valley Horticultural Society with the Wellington Cacti & Succulent Society hold their Spring show.

September is the month when the Committee start thinking about programmes for next year. If you have any topics you would like included and/or thoughts of speakers please phone one of the Committee before the meeting. The Committee meet on 10th September prior to our Society meeting and we would love to have your input.

Hope this coming season proves a good one for you for flowers.

Kind regards

Jane Griffith 31st August 2005

The Programme for 2005

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.

September 10th	**Daffodils** **On Duty:** Phyllis and Bruce Purdie, Mary Hardgrave
October 8th	**Hoya Programme** **On Duty:** Penny Luckens, Kaye and Merv Keighley
October 29th	**Visit to Cross Hills**
December 10th	**AGM and Christmas Function** **On Duty:** Nola Roser, Brian Read, Robyn Gibson.

Visit to Cross Hills Gardens

This visit is scheduled for Saturday 29th October. The plan is to travel by private cars meeting up in Feilding for morning tea before travelling onto Cross Hills at Kimbolton.

The rhododendrons will be in full flower and should provide us with a magnificent sight. Cross Hills has an excellent nursery which we have found hard to resist!

The cost of entry to the gardens is $7 per person and the café provides a good range of food for lunch.

Full details of the trip will be provided at the October meeting. Cross Hills are keen to know the number of people coming a week prior to our visit so please give Nola Roser your name

and number of people coming with you. If you require transport again let Nola know. Her phone number is (04) 4727144

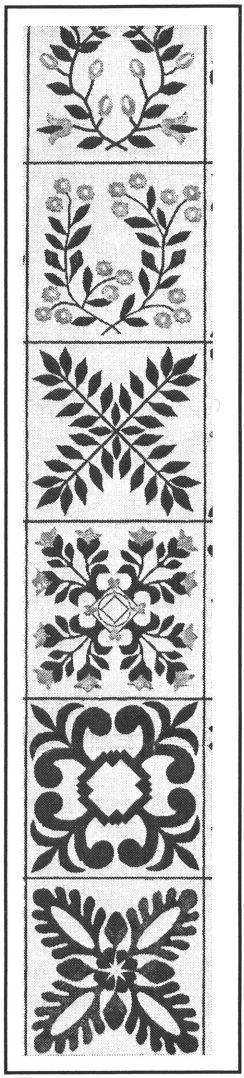
From Flower to Fantasy.

The speaker at our June meeting was ***Penny Luckens****. Penny had brought along a wonderful range of samples of work, books, photographs – and some new designs she was working on.*

The designs here and the whole talk stemmed from a statement found in a book on Baltimore Album quilts.

"The Christmas Cactus block seems to have been a relatively oft-repeated block in the classic Baltimore Album Quilts but this one seems the most graceful, elegant and realistic. The plant, first hybridised in the 1840s by William Buckley, an English gardener, surely seems additional proof that the early Album Quiltmakers were very current in their natural history and took "rational pleasure" in recording the latest botanical imports in their quilts. Not only have their quilts survived but so have some of those early hybrids as well. "It is not uncommon for a Christmas Cactus nurtured in the 19th century to survive several generations" writes Judith Hillstrom in her fascinating article on this plant in *American Horticulture* (December 1988). She adds "homes of yesteryear were perfect for growing the Christmas Cactus. Heat from corner stoves left areas nearest windows cooler, lamplight did not brighten the room's periphery. The aerial roots sprouting between stem segments, originally used for clinging to its native host, absorbed moisture created by cool air. Their great-grand mother left her plant, protected year-round from atmospheric extremes".'

So what are Baltimore Album Quilts, and how many Christmas Cactus blocks did I find?



Some Representative Pattern Shapes from the Block Gallery

From the mid 1840's to 1855 Baltimore was a bustling metropolis with a substantial seaport and growing textile industry. Middle class women began to explore ways to enrich their lives. Their wealth and heightened social life were the ideal setting for the development of Album Quilts. Baltimore was the centre of Methodist activity in the United States at this time and many quilts were stitched by women's church or parent groups, often as gifts for special occasions. They were presented at weddings or the retirement of a teacher, mayor or minister, or a man's 21st birthday. On these occasions the quiltmaker or makers often included their names, the date and messages to the recipient. Like Victorian posies the blocks were filled with symbolism - pineapple was the symbol for hospitality, cherries were sweet character, good deeds and if as a pair - love's charms.

The fabric used in antique Baltimore quilts was usually good quality cotton in bright, vivid colours indicating affluence. Blocks were often textured and with three dimensional effects created with ruching and fabric folding. They were rarely used and seen as family treasures with many surviving in relatively good condition and with their value undiminished. In 1987 a Baltimore quilt dated 1840 was auctioned for US$176,000.

The time of the Baltimore Album Quilt ended in the mid 1850s with talk of the upcoming civil war and the arrival of more frugal times. They changed quilting forever with their block-based designs, sashing strips and blocks set on point.

During the Quilt revival of the late 1970s they reappeared and are still popular today.

In 1984 a contest was held asking entrants to reproduce or base a block on a design from the book "*Spoken without a Word*" (twenty-four patterns from classic Baltimore Album Quilts with their intentional symbolism). One of the ten winners was Nonna Crook from Gallup, New Mexico; a nurse, mother of two boys, anthropology student and designer in stained glass and fabric. The Christmas Cactus block I referred to at the beginning was one of three winning blocks she made. You might not necessarily recognise it as Christmas Cactus - more a touch of holly leaves if you ask me - but good Christmas colours. Both this block and the second Christmas Cactus block could be regarded as paper cut blocks as they are regularly radially symmetrical. This second block is also quite closely related to the Fleur de Lis blocks.

Epiflora

Rhipsalis

In August, surrounded by plants, ***Anne Goble*** *shared her research on this genus.*

Rhipsalis belong to the Cactaceae family and is perhaps the most difficult genus of this family to understand. It comprises so many forms and peculiarities and even characteristics within the same species. The majority are dainty spineless plants, but a few have small soft bristles which can disappear with age. The flowers are small and regular in shape. Fruits are in the form of small berries.

In their natural habitat, they are mostly epiphytic and hang from trees with elongated pencil-shaped stems and branches either in short sections or long growths up to 1 metre or more in length. Others have angular stems, pronouncedly triangular or with 5 to 7 distinct ribs. A few have leaf-like sections similar to epiphyllum or schlumbergera, often notched and occasionally with undulating margins.

Sometimes they grow in humus, sometimes erect and sometimes clambering over rocks, more or less rooting or, when hanging, irregularly producing aerial roots. The roots are always fibrous. All have obvious aeroles. They are of easy culture in a semi-shaded position and should be kept moist. Many bear their pale cream or pink flowers in winter or early spring, followed by berries. The graceful pendent tubular or leaf-like stems make them ideal for a hanging basket.

The name comes from the Greek word *rhips* meaning reed, basketwork or wickerwork, referring to the slender, pliable branches of the typical species. More than 115 names have been published but, as far as I can find out, only 65 species have been recognised. Like many other epiphytic genera, rhipsalis has undergone a number of name changes.

It is the only cactus genus which is not confined to the New World - that is America although the species found in the Old World are identical, or at least very similar to those in the New World. The species range from Florida, Mexico and the West Indies through continental America to Argentina. Two species are found in Mexico, one in Florida, two are known in the

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The pictures opposite show an example of a Baltimore Quilt, and the detail of one of the blocks..

West Indies, very few in Northern South America, three or four only on the west coast of South America and five or six in Argentina.

The centre of distribution is in the states of Rio de Janeiro, Sao Paulo and Minas Geraes, in southern Brazil. In the little state of Rio de Janeiro and chiefly about the city of the same name, Dr. J. N. Rose collected 15 species in 1915.

The occurrence of species of rhipsalis, in the wild state, in tropical Africa, Madagascar and in Sri Lanka, forms the only possible exception to the American natural distribution of cacti. Eight supposedly distinct species have been described by authors from tropical Africa, and *R. cassutha* has long been known to exist in Sri Lanka.

Back in 1912, a very diligent French student of cacti, by the name of M. Roland Gosselin, published an interesting paper following an investigation of these Old World plants, giving his conclusion that they are really all American species, their seeds having been transmitted to the Old World by migratory birds, and he referred them all to known American species. Animals also disperse seeds in their droppings. Britton and Rose agreed with M. Roland-Gosselin but they were not able to study authentic specimens in all cases. This raised the question of whether the Old World plants should be regarded as native or introduced.

The aeroles are usually small and bear only a small tuft of wool, but in some species they bear hair or bristles. The completely tube-less, relatively small white, yellowish or greenish flowers open at any time of the day and in most species do not close when night approaches. They are not readily affected by shade or direct sunlight and open once only. A few species have more highly coloured flowers.

Most are very easily grown and are extremely tolerant of neglect. The cylindrical stemmed species in particular are very drought tolerant and seem able to survive considerable periods without water with minimal root damage, unlike the related genus schlumbergera.

The small open-faced blooms have few petals and stamens and are borne along the stems; more or less-laterally and last up to a week. The nectar is freely accessible and available to all possible pollinators. They then develop into spherical, translucent berries, in various colours from white or pink to almost black. The plants are especially pretty at this time. The mistletoe-like berries have very sticky seeds, which are undoubtedly very widely dispersed by birds.

Some species are self-fertile or autogamous and this, coupled with small flowers, makes attempted crosses with other species difficult. Careful removal of the anthers on the mother plant, using a pair of tweezers is required before pollen is shed, to prevent self-pollination.

Most species of rhipsalis, similar to other members of the Acanthorhipsalis subgroup, are self-fertile and do not require insects to aid self-pollination. This breeding system, coupled with minimum effort into production of floral parts, maximises seed production in possible adverse conditions at the expense of genetic diversity in the population.

This is of particular advantage in small, widely spread populations. The result is short term reproductive advantage at the expense of long term flexibility in adapting to environmental change. A problem will occur if you wish to do crosses with other types of plants. Attempted crosses will usually yield selfs as they naturally pollinate themselves with their own pollen.

The second large group of rhipsalis species (sub-genus phyltorhipsalis) is so similar to "phyllocacti" that the two are often confused unless flowers or fruit are present. Like the phyllocacti, they possess leaf-like flattened stems which are only round or angular at the base.

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Both rhipsalis groups contain a fairly large group of species which are difficult to distinguish. In many cases, there is a wide difference between the typical external form of old and young tissue, the two forms even existing on the same plant. Initially, the stems are often bristly, but later stems are usually virtually bare.

The remaining rhipsalis species have a closer resemblance to ordinary cacti, as they have bristly or muti-ribbed stems, but these species are hardly ever cultivated.

In stem structure, some species such as *R. elliptica*, approach very closely *S. truncatus*, while certain forms of epiphyllanthus are easily mistaken for a rhipsalis. The stem structures are various and parallel in a way those ofopuntia, ranging from slender and terete to broad and thin. In some species they are leaf-like as in epicacti, or 3-angled, suggesting hylocereus. Those species whose ovary is sunken into the stem are usually considered as their own genus lepismium.

Of all the cactus genera, rhipsalis embraces the widest range of external forms. However, the flowers and fruits are fairly uniform over the entire genus and, for this reason, different growth forms are only listed as sub-genera.

The cultural conditions for rhipsalis species must be designed to match their natural mode of life as tropical epiphytes. In summer, they can even be left in half-shade, hung under trees. They are sensitive to lime and will not do well in neutral soil. It is essential to use rainwater for watering. The root system should never be allowed to dry out completely but only give them occasional, very light watering in winter. Propagate them by seed or stem cuttings in spring or summer.

John Horobin has had success grafting schlumbergera seedlings on rhipsalis stock. The best species to use are those with thicker stems such as *R. paradoxa.* Their vigorous habit also leads to good growth and a strong, long lasting plant. They should also make a good stock for hatiora which includes rhipsalidopsis. Fine stemmed and flat stemmed species can be very difficult to work with.

I do not intend describing the various species to you but I will mention two to give you an idea of the differences between species and of how threatened they are in their natural environment.

R. incachacana is unique among the rhipsalis as it has thick tufts of 50 to 80 bristly spines at each aerole. They are up to 18mm long and the new growth is pink to light red. In the older growth they are grey. One or several flowers occur at an aerole, usually light to dark red, about 10mm long and not opening widely. The fruits are magenta with typical shiny black seeds. This plant has not been easy to grow in cultivation. Though some pieces root and grow easily, some are difficult. It does respond to damp compost and frequent spraying in a humid atmosphere.

It was originally discovered by Martin Cardenas at Incachaca, Dept. Cochabamba, Bolivia in June 1950. It was found growing epiphytically from tall trees at an altitude of 2,200 metres. The type specimen is stored at the Institute Miguel Lillo, Tucumen Argentina but unfortunately there were no specimens in cultivation and collecting a sample was a high priority of the Huntingdon expedition when they spent three weeks in Bolivia in 1984 .

The expedition had a most uncomfortable journey to Incachaca. They found that most of the trees in the neighbourhood of the village had been cut down. It was necessary to cross the river by a rickety suspension bridge to find a virgin forest. After searching, Myron Kinmach found a plant growing. at the top of a tree and realised it was *R. incachacana.* One of the Bolivian members of the party climbed the tree and carefully brought down one of the two plants growing there.

John Horobin did some work with *R. incachacana* and reported that seed pods set by natural self-seeding ripened rapidly and 15 fully developed seeds were found inside the berry. The berry changed from a dull green to a bright red colour when ripe, swelling somewhat as it did so. The shape was round, 7mm in diameter. Since. then, he has had little success.

Kinmach remarked that little is known about the cultivation of this plant. He states that at the Huntingdon only about half the older pieces ever rooted and then very slowly. None of these developed new growth but they continued to flower. The native habit indicates that this

species needs cool, damp conditions, copious watering and a well-aerated medium for the roots.

R. boliviana was another rediscovery during that Huntingdon expedition in 1984. It was originally found in 1885 and described by Lauterbuch in 1910 but it was rarely grown and little known. They found it in the province of Sud Yungas, a cloud forest area of La Paz. They had some difficulty in locating the plant and eventually found it growing on a tree on a slippery ridge. Although there were many other epiphytes, there were no other cacti and only one stand of *R. boliviana.*

This is one of Dick Kohlschreiber's favourites. He says the plant itself is very attractive but when it blooms, it is spectacular. The flowers are large for a rhipsalis and are a combination of yellow and red colours. The flowers grow at every areole, campanulate, 12 to 14cm long and 15 to 23mm wide.

This plant usually has more or less pendant, branching stems, but growth for Dick is upright. The stems are crenate with lobes alternating on opposite sides, the areoles small, usually with brownish wool and lacking spines. The berries are purplish pink, typical rhipsalis fruits. This plant is closest to *R. crenata* and belongs to Barthlot's new genus lepismium

Huntingdon Gardens had difficulty growing this plant. Dick hasn't had much trouble and thinks it may be due to the fact that he lives in a cool climate with some humidity. It is one of those cloud forest plants that does best when the temperature is cool and the humidity is high.

Footnotes:

Dr Phil Maxwell discussed the theories on how the same species can be found on both sides of the Atlantic Ocean at some length at the 1997 New Zealand Cactus and Succulent society conference. This was reported briefly in Epiflora Volume 7 No 4. The full text was published in the CSSNZ journal. ***ED***

"Bradleya" is the scientific publication of the British Cactus and Succulent Society. A relevant article was published an article in Bradleya 13 in 1995. It was called "Notes towards a Monograph of Rhipsalideae (Cactaceae)" and the authors were Barthlott and Taylor. Copies may be available from Rainbow Gardens Bookshop.

Midwinter Meeting..

July was the time for our midwinter meeting. As usual we started with a pot-lunch and then we had a guest speaker. This year we were joined by ***Ernie Davies*** *who is the secretary of the Wellington Iris Group. For those of us who think of iris as that mainly boring plant at the back of the bed - his talk, his plants and his pictures were a revelation..*

Ernie started by telling us that there are now over three hundred known species of iris, and even now new species are still being discovered in China. If one also includes all the hybrids of the bearded iris that have been produced in the last two hundred years - the total may well be over a thousand.

Iris species are to be found in many parts of the world The winter-flowering iris originates from areas in Greece, and also near the Black Sea. The bulbous iris hails from Turkey, Iran and Iraq while Japan is home to some of the "water iris'. The "English Iris" is a mountain meadow iris which originates in the Pyrenees. Finally varieties of Evansia iris' which are woodland plants come from areas in the USA, near the Canadian lakes, parts of China - and also from Japan.

All this means is that iris require a wide range of cultural conditions and will flower for you at just about every time of year. Some are small - reaching heights of 20cm or less - while the tallest may grow to 800cm or more. Some plants can be grown from seed or bulbs - while others can be propagated by dividing rhizomes.

There is a great range of books on these fascinating plants, so borrow one or two from your local library and start reading.

Ernie finished by saying "I dabble - and I don't practise what I preach". I think many of us would have to admit to that too.

Calotropsisi procera.

Notes prepared by ***Merv Keighley***

This plant is a member of the Asclepiadaceae. It is a weedy plant with the useful ability to stabilise dunes in the dry sandy coastal area in which it grows in tropical and central Africa.

It grows to a a maximum height of 4.6 metres. The flowers are followed by large inflated ovoid fruits which are packed with a mass of hairs attached to the seeds - these can form an inferior substitute for kapok.

The inner bark yields fibre which makes a strong rope, but which is difficult to extract. The milky juice is used with salt to remove hair from hides, and also for native medicinal purposes.

Being adapted to a meagre water supply in nature it usually succumbs to over watering in cultivation!

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 July edition of **EpiGram** Dick Kohlschreiber notes that "The summer is when epiphytic cacti grow" and then goes on to discuss some of the things you can use, how much and how often. Our summer is coming - so be prepared! He also continues the theme in the August edition.
The spring edition of the **Bulletin** (Epiphyllum Society of America) has an article entitled "Disaster in the Epi Garden"complete with gory photos showing effects most of us are all too familiar with. The article goes on to discuss remedies and prevention.

Also new in the Library is a reprint of an article by Eckhard Meier and Dick Kohlschreiber on "Miniature Epicacti" with lots of photos to illustrate the theme.

The June 2005 issue of **Fraterna** (International Hoya Association) has an article(with photos) on a hoya-collecting trip in the Phillipines. The article is by Ted Green - and one of the plants collected was *H.greenii* (named by Dale Kloppenburg).

And finally in the August 2005 issue of **SFES Journal** there is a piece entitled "Epiphyllums for beginners" and (for those interested in history) an article on Gray/Davis Epiphyllums - which closed recently.

Now is the time .....

By the time you read this spring will be here. The nights and days are getting warmer - but be careful - the night time temperature here went down to 0 °C a week ago! So play it safe - water in the mornings - and of course there is other work you can do on your plants. As we always say - 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 Dannevirke or Dunedin you may need to adjust things a little.

Epicacti - *You really should have done the pruning and repotting - but if you have not - it is not too late, just don't cut off too many buds. Start watering again (in the mornings) and fertilise lightly.*

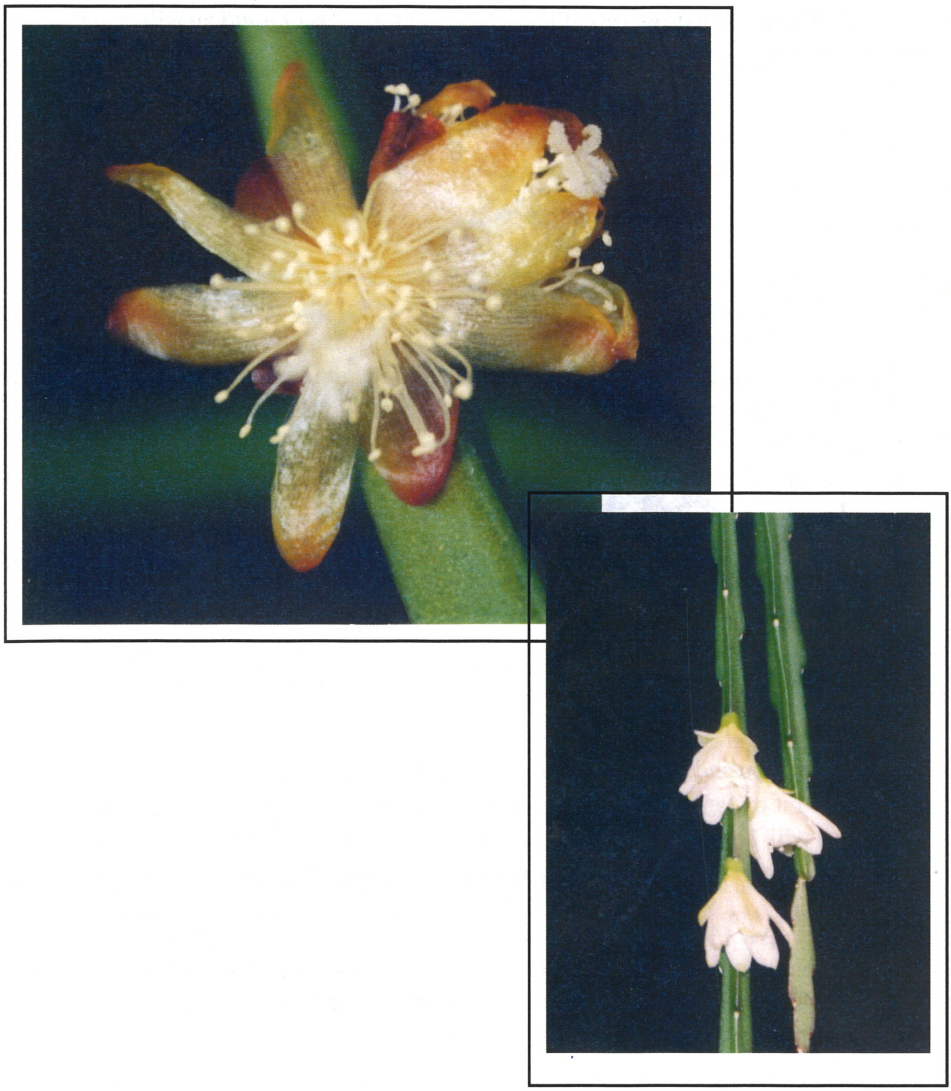
Hoyas - as the days warm up *water a little - particularly if your plants are protected from the night-time temperatures. Soon you may start taking cuttings (particularly if you have a heated pad to put the pots of cuttings on. Start checking for mealy bugs and other pests (if you ever stopped). Deal promptly with any you find - before they take over..*

Schlumbergeras - *a good time to repot. Put slow release fertiliser into the mix. Water very carefully when dry.*

Rhipsalis - *water regularly as rhipsalis come into flower. A little fertiliser will assist the plants.*

Aporophyllums - *Buds should be just appearing. Start watering a little and provide a little fertiliser. Increase the amount of water you give as nights and days get warmer.*

The pictures opposite are of *Rhipsalis Grandiflora* and an unnamed rhipsalis (Oh the importance of labels!)



Ceropegias - not a lot to do yet, but you should probably begin watering your plants soon - if not now. When it gets warmer you can start to take cuttings. *In a month you will be able to be sure that the plants that look dead really are - then you can throw them out.*

Odd Cuttings and Seeds

A Free Seminar

I note that many of our members are now "going digital" This means no more boxes of mouldy negatives and fading prints. All your precious pictures are safe and secure on your computer - right? - well possibly not. The National Library are running a free seminar on Saturday10th September 10.00am to 1.00pm at which they will talk about what you should do to preserve your digital photos (and e-mails) any other things you may value and want to keep for a long time. The seminar is being held in their auditorium at the corner of Molesworth Street and Aitken Street, Thorndon.

A new society...

This note appeared in an on-line discussion list recently ...
"On the 1st of January 2005 a new epiphyllum society was founded: epi-flora. The journal will be published twice a year in full colour. The society languages are German and English. The first issue will be published soon.

Membership is FREE for anyone within Europe who is interested in epiphytic cacti and epiphyllum hybrids. To join contact us via our web-page www.epiflora.org (unfortunately this website is in German only at the moment as we are having problems with uploading the English part).

For interested people outside Europe there is a membership fee of US $20, this is because shipment of the magazine outside Europe is expensive.

In the first issue we have some wonderful articles and great photographs.

In Europe we don't have actually any other societies anymore. The EPSG in the UK shut down their activities some years ago. So why not become a member? .... Jose Stricken editor epi-flora magazine" *(I wrote a little while ago and told him about our journal that is over 12 years old.. **ED**)*

More non-chemical warfare ...

Ants "A line of mint extract will repel ants if the need is only to keep them out of something fairly small. It has to be replenished as fast as it evaporates. This works exceptionally well except for the replenishment part. They appear to be repelled/revulsed by the smell. In a lab where I worked, our stock cabinet of freshly autoclaved petri dishes were explored daily by ants leaving bacteria (or whatever) colonies in their footprints. This treatment applied liberally around or across all access points on the perimeter ended their access."

And for **mealy bugs**..... "I have used essential oils in a dilute solution to treat the problem. Some soap (not detergent) was included. ... I have been using frankincense and tea tree oils in water (3 drops each per US gallon and shake like mad before spraying)."

Back numbers of "Epiflora"

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

Future Publication Dates..

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

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

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Closing dates for contributions:

Summer 2005 edition - 12th November 2005
Autumn 2006 Edition - 11th February 2006

Subscriptions:

Subscriptions are due on 1st of January and are:

Members -	*$12.00*
(overseas members	*$NZ24.00 or $US12.00)*
Additional Associate Members -	*$4.00*
(At same address as a member)	

Society web address:

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printed by: **RAPIDCOPY** Ltd; Wellington, NZ - ph: 04 4712537