



EPIFLORA

Volume 11 No. 3

September 2002



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From the President

Dear fellow epiphyte growers

Twenty-one people brought or sent back the survey forms that were included with the last issue of *Epiflora*. Thank you - all of you. Those who, for whatever reason, did not return a form do not need to feel left out - you can speak ...

- ▶ If you think a particular programme was good - tell someone
- ▶ If you think a programme could have been better - tell someone
- ▶ If you have an idea that you think would be good as a topic at a meeting - tell someone

and preferably try to choose a committee member to be the someone you tell!

The main task of next month's committee meeting is to create a programme for next year that we will all find interesting and stimulating. We need all the help you can give us.

We have rearranged the sequence of topics for the next few meetings a little. This meeting a number of people will be talking about some of the overseas societies we have contact with through their newsletters and journals. In November we will have our programme on photographing plants.

Now spring is here you should be beginning to see buds on your epis. It is time to start watering - and give a little fertiliser. If you haven't pruned yet - don't bother (apart from cutting off any stems that have succumbed to rot or frost) - you will only be cutting off flower buds. Make a note to do the pruning after you have enjoyed the flowers. If you really feel you must go out and do something - look at the checklist headed "Now is the Time" first!

I look forward to seeing you at the next meeting.

Happy growing and kind regards

Roy Griffith

1st September 2002

The Programme for 2002

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 14th	Other Societies .. <u>On Duty:</u> Phyllis and Bruce Purdie, Penny Luckens
October 12th	Tissue Culture <u>On Duty:</u> Kaye and Merv Keighley, Robyn Gibson
November 9th	Photography <u>On Duty:</u> Jenny Askwith, Yvonne Johansen, Isobel Barbery.
December 14th	AGM and Christmas Function <u>On Duty:</u> Dianne O'Neill, Beryl McKellar, Leone Neil.

News about People.

Congratulations Dick

It is nice to have some good news to share. Dick Kohlschreiber is the indefatigable Editor of "The Epi-Gram" the newsletter put out by the South Bay Epiphyllum Society. He is also Registrar for the Epiphyllum Society of America. What he does not know about epiphyllums and epicacti is not worth knowing. He has in the past provided us with a number of memorable slide shows. However this is not all he does - he is involved with many other plant groups and voluntary groups as well. We were delighted to hear recently that he has been selected as the winner of the USA National Recreation and Park Association 2002 Voluntary Service Award. Congratulations Dick .

Questions and Answers on Epicacti.

The panel at our June meeting was chaired by Phyllis Purdie.. The reporter is Kaye Keighley.

On yet another fine Saturday in June, the 16th fine day in a row for Wellington, 21 members of the Epi & Hoya Society met to gain knowledge, share common interests of the garden world, and to enjoy the company of friends.

Phyllis Purdie together with Nola Roser, Alice Hannan and Dianne O'Neill formed a panel at which questions from the floor were fired and everyone joined in to try and give sensible answers.

- Question. What should we be doing about Epicacti at this time of the year?
Answers. Very little food. Very little water. In fact, ignore.
Notes Depending on the season, watering is usually stopped around April. Any water after that and the plants may rot. If they get wet and then there is a frost - dead plant!
- Question What is an Epicacti?
Answer A modern day name for Epiphyllum - call it that if you like!
Notes The plants we grow are not true epiphyllums, but are hybrids which are derived from an epiphyllum x cactus. Epiphyllum is the name of the species.
One or two members have an epi or two still with buds on or in flower.
Extra prickly epicacti probably had a very prickly cacti parent.
- Question If you repot at this time of year, do you water the plant?
Answer Generally the potting mixture is damp enough so that you should not need to add water.
Notes Generally the plants are very tolerant. Left alone they will still flower without much attention.
A cutting left on top of very dry soil will send out roots and start to grow.
Some growers start their cuttings in water.
Cuttings left in a plastic bag - ones you obtain and leave forgotten in the boot of your car - will start sending out roots. Probably a cry for help!
The overall thought on repotting is that it is best not to give too much water.
Another point - potting mix should always be damp for the sake of your health.

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- Question Who decided that the name be changed to Epicacti?
Answer The Gang of 24!
- Question What is the best way to pick the flowers?
Answer It is recommended that the flowers are not screwed off.
It is best to cut them off leaving a little bit of stem so as not to damage the main stem.
- Notes Flowers for shows - some folk put them in the fridge overnight but find that they wilt quickly as they don't like the sudden change in temperature. A good idea is to put them in damp sphagnum moss.
- Question If I have a big, ungainly plant that is flopping all over the place, should I replot it at this time of the year?
Answer It would be best to nip off the new growths and cut off the ungainly stems. This will encourage growth from the bottom of the plant. Left on the plant, the "rabbit's ears" will make the plant difficult to handle and tangle in other plants.
- Notes Pruning lessons are available - hands-on - at a Waikanae property!
If you don't get the pruning done before July, be prepared not to get as many flowers come spring.
- Question When the plants are in flower, do you water?
Answer Yes, they need a lot more than - even daily.
- Question Lots of my epis have holes in their stems - what does this?
Answer Snails, wetas, caterpillars.
Notes There is not much that you can do about them but lop off the ugly bits.
Or tie a little ribbon through the hole!
- Question Can you move the plants while it has buds on?
Answer Move your plants to shelter before the frosts.
Notes They need top cover and air movement but remember even in shade houses the frost will still get them.
- Question Why do they die when they get frosted?
Answer The cells freeze, expand and burst.
Notes A little physics lesson ensued.

An as-yet unregistered and unnamed epi hybrid: Red Elf x Utopia



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- Question When do you start fertilising?
Answer When the buds start to form.
 When first watering in the spring.
- Question By their nature, epis seem to be top heavy - do you put anything in the
 bottom of the pot to weigh them down?
Answer Use a bigger pot. The plants tend to cuddle up and support each other in
 their pots.
- Question What type of pot is best?
Answer Plastic - clay pots dry out too fast.
- Question If a plant has a virus, what do you do with it.
Answer Throw it out.
Notes A virus will spread if a sick plant is cut and then the same implement is
 used on another plant. Try spraying with a fungicide if your plant looks
 cranky.

Another enjoyable session with everyone participating and learning as we went.

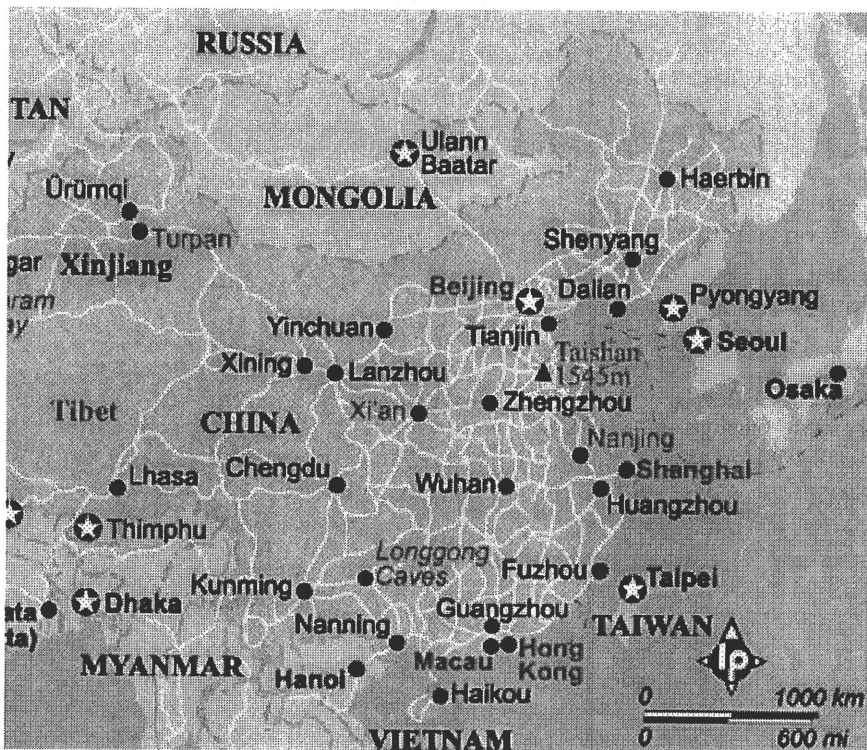
Teaching in China.

“The High point of a more than usually peripatetic life”

At our July mid-winter meeting Mary Gray talked on her experiences in China, Penny Luckens reports ..

Mary started her talk by saying that her husband, Vincent, shortly before his retirement in 1986 was given the names of four colleagues in Chinese universities by a Chinese professor who was a colleague at the DSIR. The result of this was that Vincent was invited to go to work in the thermo-sciences department of Zhejiang University in Huangzhou. When they discovered that Mary was a languages teacher she too was invited as a visiting professor to teach English.

They were asked to arrive in China on April 1st 1987 which they did, only to discover that the teaching year did not start until September 1st. Initially Mary had taken one year's leave of absence from the NZ Correspondence School but she was so enthralled with China that she soon sent her resignation back to Wellington.



In Huangzhou there was a group of industrialists who needed an intensive English course before they travelled overseas, so Mary taught them every morning from 8 to 10 am. July temperatures there rise to 39.9°C, only falling to 35°C at night so she said she would only teach them in the early morning in a room with a fan (there was no air conditioning). Temperatures there do not officially rise above 39.9°C because if they got to 40°C the factories would have to close.

Huangzhou is a very beautiful city set beside the famous West Lake. The climate is hot in summer and cold and damp, like London, in the winter.

This was not Mary's first visit to China. She was born in Guam where her father was a captain in the US navy. In 1924 the family went to Shanghai and then in 1925 to Canton (now Guangzhou)) and Manila for annual holidays. Her father had been stationed on a gun-

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boat on the Yangtse river in 1911. At the US university where Mary studied there was a memorial arch to missionaries killed during the Boxer rebellion and the university ran a mission school in China. When she graduated in 1945 she applied to teach in China for a year at the mission school but was turned down ("not churchy enough"). Instead Mary went to France where she met her English husband - and then to Canada and the UK before coming out to New Zealand.

In September 1987 she had classes of PhD students (25 in each class) who were a dream. They did everything she asked them to, although it was a problem at first getting them to talk. For their exam she asked them each to explain their PhD thesis to her.

Their accommodation was in a rent-free apartment on the third floor (above mosquito level). It had a bedroom with a balcony (for laundry drying), a living room with a TV and a small kitchen with a stone sink and a two burner gas stove with an unlimited supply of bottled gas. They had a 2kw electric heater in the living room and an air-conditioner (not very warm) in the bedroom. For toast - and for cooking - they bought a small toaster oven. As they were both over 60 they were entitled to 300ml of milk every day which they collected from the market. All the produce at the market was very fresh. Mary balked at buying a live chicken, but one of the fish they bought jumped out of the bicycle basket on the way home.

Both Mary and Vincent bought bicycles. These had to be registered. The only road rule that seemed to exist was that you must not bump into the person in front of you. The streets were wide with four lanes - two for cars and two for bicycles. When they left it took a day to do all the paperwork to give away the two bicycles and transfer the registration.

For listening comprehension Mary taped the BBC News and explained the vocabulary. It was sometimes difficult to get the students to ask questions.



Vincent found that the research lab was rarely open but that the library had a better range of scientific journals, in English as well as Chinese, than any library in New Zealand. He did a lot of research in the library and also taught an English class. He bought a keyboard and a local song book - and taught them English songs.

Huangzhou is at the southern end of the grand canal built to supply Beijing with food from the warmer southern Yangtze basin.

Another famous Chinese city is Suzhou - the Venice

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of China. With its old buildings , canals and bridges, and classic Chinese gardens it is a major destination for both Chinese and foreign tourists. Mary and Vincent travelled up to Suzhou on one of five barges towed by one boat up the grand canal. Their host was a man who had made a fortune from a special recipe for roast watermelon seeds - a popular snack. He liked to talk to foreigners and showed them round the city including taking them to a restaurant where the meal included dog meat.



Their teaching contracts were for a period of one year - up to June 1988. In the summer break they went on the Trans-Siberian railway and on to UK before returning to China for the start of term in September.

In April 1989 they travelled to USA for a family celebration while their classes were taken by relations. In that month Hu Yao-bang died and the student uprisings began culminating in the Tiananmen demonstrations, Meanwhile Mary and Vincent covered 25,000 miles in the USA visiting sixteen nieces and nephews as well as many of their Chinese students.

In Dakota they had a tape from an American teacher in Huangzhou who said there were no problems - so they planned to return to China. One of the US universities was taking students to China to spend a term in Kunming. They invited Mary and Vincent to visit, and while there they investigated possible teaching jobs.

Kunming in Yunnan province, south-west China has the best climate in the world. Although it is further south (25° N) than Huangzhou, it is at 2,000 m above sea level and does not get nearly so hot in summer or so cold in winter. Mary was appointed as a foreign expert at the Normal University - teaching teachers. Again they had free accommodation, but this time they had a cook who cooked for them and the US teachers who came later from Dakota and Kentucky universities. Mary was very happy teaching in Kunming - left to herself she might be there still - but they came back to New Zealand where Mary did stage II Chinese and became totally hooked on Chinese characters. Recently she has become President of the Chinese Language Association and worked hard to get Mandarin (standard Chinese) accepted as a foreign language in New Zealand high schools. At 79 she packs more into a week than most 40 year olds; and yes she did bring up a family as well.



The Naughties...

On Saturday 10th August, Penny Luckens gave a very interesting and well-researched talk on "The Naughties" – Pests, Diseases and Problems with Epicacti and Hoyas. The following is a summary of Penny's talk - prepared by Jenny Askwith.

I. Management Limitations of plants:

1. Area
 - space and air movement is necessary for healthy plants
 - crowding affects plant health
 - crowding gives pests an easy path from plant to plant
 - crowding creates lack of light and therefore spindly growth
2. Money
 - inferior materials for shelter may collapse with extreme weather
 - lack of frost protection can lead to winter deaths
 - lack of fertiliser
3. Time
 - the main plant killer - lack of time to weed and care for your plants.
spend time with your plants regularly and you will spot pest damage, diseases and weeds before they get to the stage of affecting the plant's health (preventative maintenance). Time spent in preventative maintenance is better than time spent in disposal of the dead, and attempts to fix the problem – or starting again from cuttings.
"The best fertiliser is the farmer's footprints"
 - allow time for reading and research – you may find something useful

II. Discolouration in branches, segments and leaves:

This is not spotting, but changes of colour on whole leaves/phyloclads, and not young growth of a different colour.

1. Red/maroon colouration of phyloclads of schlumbergera, epicacti or leaves of hoyas is a sign of stress.
 - a. on the upper side only, means too much sun or light therefore move plants to a more shaded position. If only a few schlumbergera segments are affected, prune off and fertilise if in the growing season
 - b. colouration on both sides of plant growth usually indicates cold stress and that all is not well with the roots
 - move plant to a warmer position where you can control watering

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- repot into a coarser mix
- do not fertilise until recovery is underway

2. Phylocads and leaves of hoyas which turn cream/yellow

- yellowing on both sides of leaf/branch is a sign of chlorosis, jaundice or anaemia
 - due to a lack of nourishment especially potash. This may mean the plant needs repotting or given an application of a balanced liquid fertiliser
 - soil in container is becoming alkaline so check the pH level
if alkaline, repot in a slightly acid potting mix (pH 5.5 – 6.5) and water with Iron Sulphate (1 heaped tablespoon /9 litres) and repeat 2 – 3 times/summer if water is alkaline
 - a root disturbance may induce self pruning or yellowing of old branches or leaves. Prune off these yellowed parts and give a balanced fertiliser. Always read the fine print on packets of fertiliser – it may tell you to leach your pots out by leaving the hose running on the pots for a couple of hours. If a white crust forms around the rim of the pot it means salts are coming out of the soil
- yellowing only on leaves or branches facing the light indicates severe sunburn or frostbite – particularly schlumbergeras. Remove to a shadier place or put 50% shade cloth over shade house in hot months of the year.
- hoya leaves turn yellow between the veins – usually the edge of the leaf yellows first – this indicates a magnesium deficiency – water with epsom salts once or twice a year.

III. Spotting and Blemishing:

- Nitrogen burn or Black Spot - this starts orange at the edge then spreads inwards turning brown then black. It then dries out and drops out indicating too much nitrogen
 - remove any pellets on top, wash out fertiliser and start again.
- Mosaic Virus – spotting on Nopaloxochia - this could be genetic, but spraying with a fungicide may give clean plants indicating that it is not a virus.

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3. Temperature or cell damage spot - brown/maroon spots turning to black, become hard and then fall out can be caused by extremes of temperature between day and night or overhybridisation where susceptible genes from both parents should be apparent by the time a plant has flowered a couple of times and "rogued out".
4. Sunstroke Spot – bright orange areas, sometimes blistered, on sun facing parts – may occur when plants are moved from more shade to sun or bright sun after long overcast periods – give more shade or shift the plants.

IV. Other:

1. Excessive air roots and spindly growth
 - a. too much shade – move to more light, prune off spindly parts
 - b. starved of nourishment – fertilise (liquid foliar feeding is fast)
 - c. a root problem – check for mealy bug, rot etc
2. Withering and shrivelling of leaves, segments on phyloclads
 - a. withering after flowering indicates all the strength has been poured into flowers - remove to cool shade, withhold fertiliser, water sparingly and let rest.
 - b. withering due to hot weather indicates excess transpiration rather than lack of water at roots so increase humidity around plant such as misting 2-3 times a day or water the floor.
 - c. withering due to lack of nourishment – this may happen in warm or cold weather in epis and hoyas and may be a lack of moisture in the mix.
 - i. surface of mix is crusting so water is not absorbed. This may be the mix ingredients - peat that dries out is hard to rewet or silica sand that repels water. Dunk in a bucket of water with a wetting agent (Wetta soil) until bubbles cease.
 - ii. Plant is root bound with no space for air or water between roots and mix. Pot on after soaking with wetting agent taking care not to damage roots and then don't water for a week after repotting.
 - d. Withering due to root disorders – root rot/ black rot.

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3. Shedding of branches and leaf segments of epiphytic cacti – a certain amount is normal. Are we trying to grow them in very hot low humidity? Is there a root problem? Mealy bug, root rot, alkaline potting mix ? Is the potting mix too dry or too wet?

Tip plants out of pots and check for root mealy or rots. Check moisture level and pH level of the potting mix. If all of these are negative then probably the atmosphere is too dry so try misting the plants.

4. Bud Drop

A plant may be able to supply food to all the flower buds when they are small. As the buds grow, their food needs to increase rapidly and the plant may not be able to cope if it is stressed by

- temperature changes
- water stress (under watering, root rots)
- damage from aphids and thrips removing sap before it gets to the buds.

Flower buds tend to grow towards sun and light. Moving the pot means that the buds may have to change growth direction, which may cause them to drop.

V. Diseases:

1. Root rot and black rot – an invasion of soil organisms into roots/stems which often occurs when over wet/anaerobic. Over fertilising on dry roots can kill them leaving the way open for infection by bacteria/fungi.
2. Hoyas – anthracnose which are small brown or purple irregular sunken markings. Fungal diseases can spread fast, particularly in plants in less than optimal conditions.
 - don't overcrowd plants
 - give good air circulation
 - wash old pots and sterilize with bleach/potassium permanganate (Condy's Crystals)
 - dip scatears in fungicide or meths between plants
 - remove rubbish and dead material from pots

A hybrid of "Red Buttons" - created by Von Cross



VI. Helpful Pests:

- Earwigs eat aphids and therefore do more good than harm.
- Ladybirds eat scale and certain types of mould. (The steely blue ladybird eats scale on flax)
- Birds eat aphids and scale insects
- Ant activity on plants is an easy to spot live indicator of the presence of sap-sucking insects – the ones that can really damage your plants

Now is the time.....

Epicacti - late pruning is possible, start watering again and fertilise lightly.

Hoyas - as the days warm up water a little. Cuttings may be taken. Start watching out for mealy bug.

Schlumbergeras - a good time to repot, using a slow-release fertiliser in the potting mix. Water when dry.

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

Aporophyllums - buds should be coming - start watering a little - and provide a little fertiliser. Increase the amount of water you give as the days and nights get warmer.

Ceropegias - Not a lot yet - but you should probably begin watering your plants. When it gets warmer you can start to take cuttings.

Odd Cuttings and Seeds

Plant Taxonomy...

For those who would like to do some study of plant taxonomy - here is a link that might be useful:

www.inform.umd.edu/PBIO/pb250/

It is the outline of the lecture notes for a plant taxonomy course at the university of Maryland - taught by James Reveal.

As spring comes

Some people start to think again about creating new epi hybrids and look out their small paintbrushes - ready for the fray. One thoughtful soul recently posed the following question:

"I have a small number of brushes for this - but more plants than brushes - how do I avoid reusing a brush that still has some viable pollen on it? Will cleaning with 90% alcohol suffice"

His question produced a range of answers - here are some:

I use white cotton swabs for pollinating, the kind you are not supposed to put in the ear - but most people do anyway. I use them once - and throw them away.

Alcohol will probably work. Some pollen has a waxy coating (pollen kitt) that may resist alcohol treatment, or the pollen coat may not permit infiltration of alcohol enough to kill the microgametocyte within. I would think that dunking the brushes in boiling water for 5-10 minutes should kill most pollen (but not all bacterial or fungal spores)...

I use tweezers to grasp a bundle of pollen stamens and transfer them to the female plant. Tweezers are easily cleaned by any method.

I use cats whiskers, they are free - and can be tossed out after use - and they are small enough to get into any flower. *(But despite many attempts no-one could get this correspondent to say how she got the cat to hold*

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still.....Ed!)

Searching for information on the internet...

I watched a discussion recently which started with the plaintive “does anyone know anything about *Diteranthus microspermus*”. Someone else said “search using Google - which produced the answer “I did - and found nothing”.

Someone else said “If you had searched on plain old *Diteranthus*” you would have hit paydirt - and they attached a list of references to prove the point.

The moral of the story seems to be - start by searching on the genus alone, not the genus + species. The name you have might be mis-spelt or the specific name might now be incorrect..

Read the label...

This can never be said too often. It is not safe to mix up sprays or fertilisers just “as you always have done”. This weekend an Orthene spray was called for - this time the label on the bottle said 10ml per 10 litres - which seemed an unfamiliar dilution. An old bottle said 4ml per litre. The reason for the difference is that the new bottle is a “nursery” pack - not a home garden one - and hence is more concentrated.

Well-being among plants.....

A final word from a discussion on fertilising plants... which included the suggestion that minuscule amounts of “Thrive” in large quantities of water was beneficial for hoyas.....

“I can’t see how one drop of anything per gallon of water would improve plant growth. I’d rather spend the money on whiskey..... it must be the power of positive thinking..”

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 - issue number 1 (March 1993) onwards. Prices are 50c per copy plus postage (if applicable) - contact the Editor

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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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<i>Additional Associate Members -</i>		<i>\$4.00</i>
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