



WELLINGTON

EPIFLORA



EPIFLORA

Vol.4 no 3

September 1955

Table of contents

Editorial		page 2
President's letter		page 3
Branch news & notes		page 4
Where in the world would you find Epiphytes by Jane Griffiths		page 5
Epiphyllum & hoya map		page 7
Other Epiphyte species map		page 8
Robert Brown -the father of the Asclepiads by Alison Beeston		page 9
A botanical trip to Europe -Mike Oates talk		page 14
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Editorial

This has been the hardest edition since we began as editors to find sufficient material to make a reasonable magazine and has had more editorial input than we like. Andrew has had his say elsewhere about the need for active participation by more members to make the club a success. When we first came along it was the way people did all join in actively that attracted us. We have enjoyed editing Epiflora but have only been able to do so with considerable help from a lot of people. Business and other commitments make it hard for us to give it the time and effort it really needs and we are always aware we could have done better with more time.

In spite of the lack of response so far to the request for new editors we have taken a step of faith and ordered the cover paper for next year's issues and foiled them ready for the new editor/s. If someone will just be responsible for collecting the material, typing up where necessary and putting it into order we are quite happy to help with the production side (photocopying, collating, stapling etc.) Usually speakers at the meetings assist with notes from their talks and there are a few regulars we can call on. In this respect it was a blow when Penny announced that the China job had at last materialised although we were happy for her. She has been a tower of strength and knowledge and has always managed to write something to fill in gaps when asked.

Spring they tell us is almost here though our glasshouses don't show much sign of it yet apart from the start of buds on the Epis. and some new growth. We're looking forward to warmer weather and longer evenings when we can spend more time admiring and looking after the plants.

Alison & Peter Beeston



Presidential Perambulations... or, do you really want to be a no-one?

What to rave about this month ????

We had the mid-year function, and all went well, thanks to the stalwart Committee members who helped organize it. We hope members had an enjoyable time, and look forward to next year's get-together.

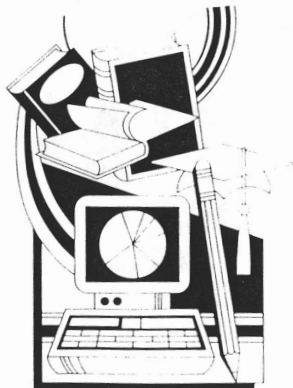
Speaking of the stalwart committee has triggered me off. I think we are rather thin on the ground when it comes to willing helpers, and our rule about officers compulsorily retiring after a few years on the job is not helping given the small size of our group. At the end of this year we are definitely losing the Editor(s), the Secretary, the Treasurer, and even the President is a bit flakey... Who is stepping forward to take over these exciting, challenging, yet not overly onerous jobs? No-one is!

This is probably not too surprising in a country where the Paternal State rewards those who don't take personal responsibility seriously, but it is of not much help to us in running our Epiphyllum and Hoya Society. No-one is not going to organize our meetings. No-one is not going to bank the money and write the letters and... and.... and keep us alive!

There is an old saying sometimes called "the 90-10 rule," and in my experience it is generally true. In effect, the rule observes that in any human group roughly 10% of the people do 90% of the work. So in a society of 30 or 40 members, it is not surprising that there are only 3 or 4 people willing to take responsibility for helping us function.

I suggest its time we bucked the 90-10 rule, and a few more of us stop being no-ones and step forward like good soldiers..... please!

Andrew Flower.
President.



Branch news and note

Numbers at the mid-year dinner wereslightly down on last year partly because some of the regulars were overseas at the time but those who did attend enjoyed a very pleasant evening. Having the meal catered for makes things easier for everyone but particularly for the committee and the videos of English garddens ands a Taranaki Epiphyllum collection were interesting even if there were some problems with the video which kept Merv. on his toes.

Welcome back to Nola and Brian, our overseas travellers. We misseed you at the dinner and the Committee will be glad to have Nola back in the ranks which have looked rather thin lately. How about a few lines to tell us about what you saw while you were away?

Our good wishes to Penny for her year in China. We hope she will be sending us some news and notes for Epiflora and will miss her from our meetings.

Congratulations to Herman Kortink on winning the August Evening Post garden of the month. Most local members will know Herman's garden well and will appreciate how much time and efforthe put into both the cactus collection and the garden.

Mike Oates' talk and slides at the August meeting are reviewed elsewhere in the magazine. Some of the gardens were the same ones shown in the video at the dinner but this was a different view altogether and was a good follow up for those who saw the earlier video.

Duty roster for October - Levin crew and Merv.



WHERE IN THE WORLD WOULD YOU FIND EPIPHYTES?

To fully answer this question it would be necessary to take a trip to those parts of the world where epiphytes grow - in other words to travel through most countries of the world. This did seem a rather crazy notion to our members so instead we compromised and decided to only look for epiphyllums, hoyas, aporocactus, rhipsalis and schlumbergeras.

Therefore on 8 July twenty five of our members moved into the world of fantasy as we boarded an Air New Zealand plane to Los Angeles. After the thirteen hour flight everyone was ready to blob out for a day or two in L.A. before flying south to Mexico in search of epiphyllums. Suitably dressed for the hot humid jungle and with footwear which made us feel safe from the creepy crawlies we headed into the trees looking upwards to the branches and crevices of tree trunks for anguliger, oxypetalum and other epiphyllum species. There we saw the long aerial roots of the plants travelling over the trees, the fleshy leaves mottled with unsightly patches where insects had had their breakfast or some fungus mould was attacking the plant. Oh no these leaves would not have been acceptable in our shadehouses but we were seeing things as they really are in the natural environment. As we moved on into Costa Rica, Nicaragua and to the Amazon region of Peru we were thrilled not only with the epiphyllums we saw but also our sightings of both Aporocactus flagelliformis and conzatti. Some of our party were apprehensive about the night visit to the forest but because we were on a fantasy journey we knew that we would not be attacked by any of the "nasties" of the jungle! And we were wonderfully rewarded as we tramped through the forest at midnight by the perfume of the epiphyllums and seeing their magnificent flowers. Even the trip to Iquitos in Peru was well worthwhile not only to see the magnificence of this city but also to trek into the jungle nearby to find the newest epiphyllum species, floribundum, discovered as recently as 1990.

Away in our private plane to the states of Rio de Janeiro, Sao Paulo and Minas Geraes in Brazil in search of Rhipsalis in all its many forms. Again we were prepared for the temperatures in the high 20's and the rainfall which was so typical of the Tropics coming in heavy downfalls. Here the landscape was a little more open but we found our prize rhipsalis plants in the canopies of trees but also some were growing on rock surfaces in the full sunlight.

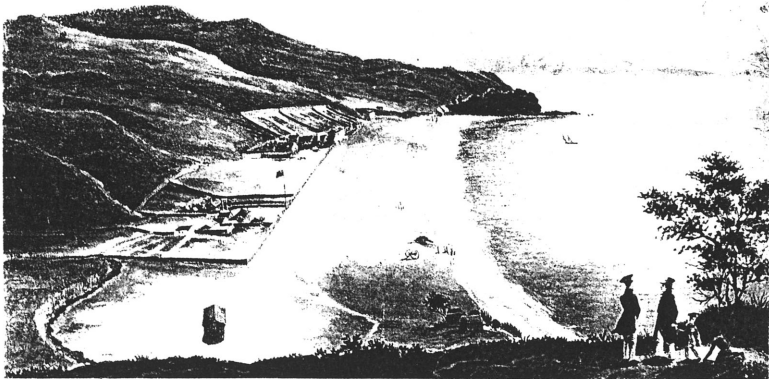
Whilst in Brazil we also kept our eyes open for schlumbergeras and rhipsalidopsis. We had been told that we were more likely to find the elusive six species of schlumbergera in higher altitudes than the rhipsalis so we moved up to the mountains where there are both large diurnal and annual ranges of temperature. Sure enough up at 2300 metres in the cold, damp foggy mountains we found Schlumbergera opuntiodes thriving and even showing the beauty of its cerise flowers. It was worth the huffing and puffing up the mountain side to see this little beauty.

Before flying over to Singapore we could not resist travelling via East Africa and Sri Lanka to look for rhipsalis in these places. After digressing to look at the wildlife in the Game Parks of Kenya we were thrilled to find rhipsalis growing on rock surfaces amongst the Savanna. Also in Sri Lanka we did find one or two rhipsalis plants amongst the vegetation of the hillsides. We agreed with the theory that these plants were probably not indigeneous to these countries but were the result of seeds being dispersed by migratory birds.

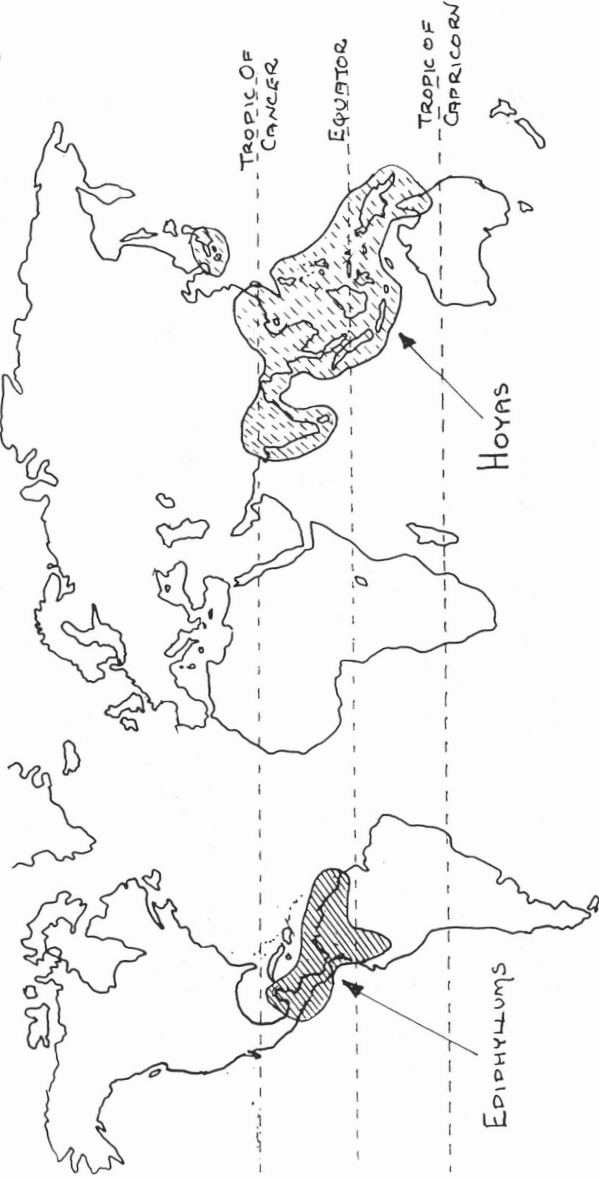
As our plane neared Singapore and we planned our trips to Malaysia, Indonesia, Nepal, parts of China and Japan in search of hoyas there was not doubt that our hoyo-enthusiasts in the party were getting decidedly excited. How could we hope to see anywhere near the 150 different species in such a short time and we had decided that we wanted to keep together as a party. We just couldn't cope with Merv, Andrew or Maurice telling us about a beautiful specimen that they and only they had discovered!! As we travelled through hoyo growing places our necks got a permanent upward bend as we tried to be the first to notice one of those wonderful hoyo flowers climbing up a tree or twining along a branch. We were just deciding that we had seen most of the hoyas that we had expected when we realised that we hadn't yet been to the Phillipines and New Guinea and so off we went in search of cumingiana, odorata, pubicalyx and all the other hoyas that we identify with these countries.

Before returning to Wellington it was unanimously agreed that we must pop into Queensland and so a few days in Cairns proved a popular destination not only for those who had exhausted their enthusiasm for hunting epiphytes but also those we wanted to see all four of the Australian species. With much searching and with the help of the local people australis, nicholsoniae, poolii and macgillivrayii were all found amongst the lowland forest of Queensland and New South Wales.

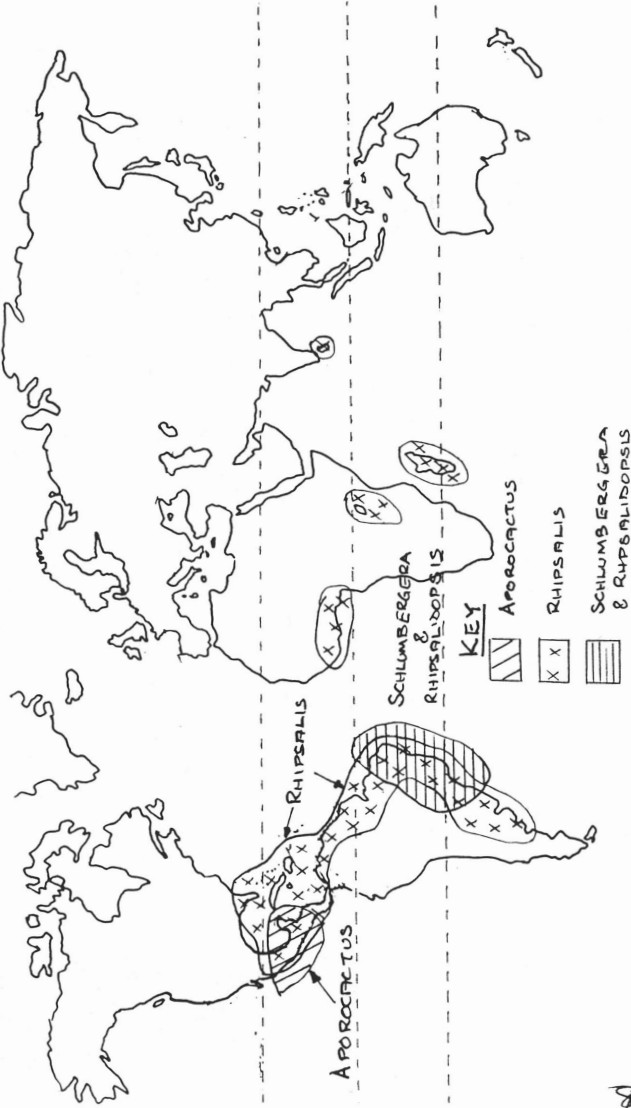
As we flew into a perfect Wellington day the harbour was glistening, the snow of the Kaikouras showed up beautifully from the plane and the green belt around the city reminded us of how we had missed our own patch. Weary but wiser we touched down on terra firma and recognised that unfortunately this was all fantasy. Such a dream trip would be absolutely wonderful but we realised that we would have been unable to resist bringing the odd cutting (or two or three home!



Where in the world would you find Epiphyllums and Hoyas?



Where in the world would you find other Epiphytic Species?



Robert Brown - the Father of the Asclepiads

Alison Beeston

A month or so back there was a lecture at the National Library Lecture Hall entitled "Bank's botanists". I'd love to have gone but unfortunately couldn't make it but have been wondering ever since just who "Bank's botanists" were. Two that spring to mind immediately are Francis Masson & Robert Brown. Masson went to South Africa because of a recommendation Sir Joseph Banks made to the king on his return from his trip with Cook. That trip had included a brief stop at the Cape, just long enough to convince Banks of the need for further botanical exploration, and the end result was two trips by Masson to South Africa which added a great deal to the knowledge in England of South African plants. Brown was later responsible for separating the Asclepiads from their close relations as a distinct family and he used the work of both Banks and Masson as a base.

The August 1994 Asklepios magazine has a long article by Colin Walker on Brown, to which I am indebted for most of the information about him. All I knew before reading it was that Brown was responsible for the naming of Huernias (named after Justus Heurnius, the first European to collect at the Cape. Note the incorrect spelling which has persisted and been accepted) and Hoyas (named after Thomas Hoy, gardener at Syon House).

Colin Walker's article in Asklepios suggests that Brown was perhaps the greatest ever British botanist. I always wonder about such claims - botanists are so dependent on the work of those who preceded them and on each other that to proclaim any one to be the greatest would appear difficult-but certainly those interested in any of the Asclepiads have reason to be grateful to him.

He was born in Scotland in 1773, the son of a Protestant clergyman from whom he is said to have inherited his strong independent views, intellectual honesty and a sturdy character. He went to Edinburgh University to study medicine but for some reason did not graduate. It was there that he developed his interest in plants. In 1795 he enrolled in the army and went to Ireland as a surgeon's mate, spending his spare time botanising and studying German.

The turning point of his life came with a visit to London where he was introduced to Sir Joseph Banks who was at that time very much at the centre of botanical life. Banks was obviously impressed by Brown's botanical knowledge and offered him a job as naturalist on a voyage to Australia (then still known as New Holland). Brown accepted, resigned from the army and in preparation for the voyage spent some time in London, studying in Bank's library and herbarium the



Robert Brown as a young man, from a portrait by an unknown artist in the Natural History Museum.

Robert Brown is undoubtedly the most important and influential botanist who studied asclepiads in the last century, principally because it was he who first separated these plants from their close relatives as a distinct family of their own, and as such can be considered as the 'Father of the Family'. Consequently, his work is the starting point for the modern study of asclepiads.

material Banks had brought back from his visit with Captain Cook.

H.M.S. Investigator left in July 1801 with Flinders, Brown, William Westall, the landscape artist, and Ferdinand Bauer, the botanical artist on board. (Ferdinand Bauer had a brother, Franz Andreas Bauer, who was also well known as a botanical artist and the direction the brothers' lives took was also influenced by Sir Joseph Banks. Franz Bauer spent the major part of his life working for Kew Gardens). The main aim of the Flinders expedition was to survey the northern and southern coasts of the country and to discover whether it was one continent or a group of islands. Brown had certain advantages over Banks in his botanical work in Australia. One was that he was able to take with him a duplicate set of Bank's Australian herbarium specimens, another was that Flinders was more sympathetic to the botanical work being done than Cook had ever been, and the third was the calibre of those who worked with him. Many of the plants they found in Australia were new and did not fit easily into existing classifications. They arrived back in England in 1805 bringing with them many specimens and hundreds of drawings. In the years that followed both Brown and Bauer worked on the material and in 1810 the first of a proposed pair of volumes "Prodromus Flora Hollandiae et Insulae Van-Diemen" finally appeared. Brown had to pay for the publication himself and it was a commercial failure, only a few of the 250 copies being sold. It contains the first descriptions of several genera in the Asclepiad group including *Hoya*. Bauer's own work on the Australian material was also a financial disaster. He had planned to produce a volume of illustrations but was unable to find anyone capable either of engraving or colouring the plates properly and had to do it all himself. After 15 pages of illustrations had been issued he abandoned the project and, depressed by his failure, packed up his drawings and his herbarium and left England to return to Austria. The 15 plates he did produce are considered among the most beautiful ever produced of Australian plants and some of his botanical studies produced during the voyage are in the Natural history museum in Vienna while the Natural History Museum in London has 236 colour paintings.

A week after after the publication of Prodromus Brown's paper "On the Asclepiadeae" was read to the Werner Natural History Society in Edinburgh and it was formally published the following year. Here for the first time he separated out the family Asclepiadaceae from its former home with Apocynaceae, a family established by the French botanist de Jussieu. Brown based his conclusions and his promotion of the new classification on his study of the Banksian herbarium, his own collections from Australia, and the South African material collected by Masson. See what I mean about the way

PRODROMUS
FLORÆ NOVÆ HOLLANDIÆ
ET
INSULÆ VAN-DIEMEN,
EXHIBENS
CHARACTERES PLANTARUM

QUAS

ANNIS 1802—1805

PER ORAS UTRIVSQUE INSULÆ COLLEGIT ET DESCRIPSIT

ROBERTUS BROWN;

INSERTIS PASSIM ALIIS SPECIEBUS AUCTORI HUCUSQUE
COGNITIS, SEU EVULGATIS, SEU IMEDITIS, PRÆBETIM

BANKSIANIS,

IN PRIMO ITINERE NAVARCHI COOK DETECTIS.

VOL. I.

LONDINI:

TYPIS RICHARDI TAYLOR ET SOCIJ.

VENEUNT APUD J. JOHNSON ET SOCIOS, IN CEMETERIO
SANCTI PAULI.

1810.

botanists continually interact and use each other's material.

On his return from Australia Brown was appointed clerk, librarian and housekeeper to the Linnean Society. When Banks died in 1820 he left an annuity to Brown along with all his collections in trust. After Brown's death all the material was to go to the British Museum. However Brown negotiated with the Museum to take over the collections immediately but make him the keeper of Botany there.

The Royal Society elected Brown a fellow in 1811 and he was president of the Linnean Society from 1849-1853. He was in an enviable position at the centre of the botanical world, able to work with the greatest herbarium collection in the world as well as having the Linnean Society collection, including Linneaus' type material, at his fingertips. Banks' unrivalled library and collection of drawings were readily available as were the living collections at Kew. He was the centre of of a worldwide network of botanists and collectors and new material was continually arriving from collectors around the globe. For many years his Sunday mornings were spent in discussions with the most famous of all his many friends - Charles Darwin.

Darwin wrote of him "He seemed to me to be chiefly remarkable for the minuteness of his observations and their perfect accuracy. He never propounded to me any large scientific views in biology. His knowledge was extraordinarily great and much died with him, owing to his excessive fear of never making a mistake. He poured out his knowledge to me in the most unreserved manner".

Brown died aged 84 in the room that had been Banks' library. After his death there was much controversy over the botanical collections at the Natural History Museum. Brown had wanted them to stay where they were but others, particularly the Hookers, father and son, felt it would be appropriate to merge them with the growing collection at Kew. The fact that William and Joseph Hooker were directors of Kew obviously influenced their opinion but Brown got his way and the collection stayed put although after his death Kew did become the centre of botanical research.

Whether or not we accept the claim that he was the greatest ever British botanist there is no doubt of his importance as an original thinker with an incredibly incisive overview of botany in the first half of the nineteenth century.

A BOTANICAL TRIP TO EUROPE

At our meeting on 12 August we were fortunate to have Mike Oates, Curator of the Wellington Botanical Gardens give a presentation.

Mike had been invited to give a talk in Germany on conservation in New Zealand. It was entitled "The Current Status of Woody Vegetation in New Zealand".

Whilst in Europe he took the opportunity to visit some major botanical gardens, spending one or two full days at these. His favourite garden was the Palmgarten Garden in Frankfurt.

Mike showed slides that he had taken of various gardens and special interest items in the gardens. He was interested in the way art was introduced into some gardens by way of sculpture. These were placed at strategic or unusual situations to surprise patrons and enhance specific pieces. Unusual plants or unusual plantings were shown by Mike in his slides.

Many oohs and aahs were heard as slide followed slide. Questions on, "Can we get that plant here?" or "What was that?" were asked. Ideas were formed and placed in the back of the mind, waiting for the "Grande Trippé" to experience for oneself what Mike showed and explained to us. Of major interest to him was the labelling of plantings.

These educated by giving simply, but clearly, information of the botanical name, some common names, uses, sometimes maps of where plants originate, etc.

The afternoon passed much too quickly to everyone's dismay. A most enjoyable experience.

Thank you Mike.



Bring & Buy

Myra's market

Just a reminder that a major contributor to the fund for the Epiphyllum & Hoya Society convention we ran a couple of years ago was the Bring and Buy Stall Myra ran at every meeting. Although the stall has continued the contributions have been very few lately. If no-one brings anything Myra will have nothing to sell so no-one can buy anything and the Branch won't get any money - at least from that source. So if you have anything you can spare and someone else might want bring it along. After all the next Epi and Hoya Society convention here will be on us more soon than we realise and we need to start building up funds now.



■ AUGUST GARDEN OF THE MONTH

Prickly pastime for cacti lover

Cacti country in Upper Hutt? Ngaire Hopper takes a look at The Post's August garden of the month.

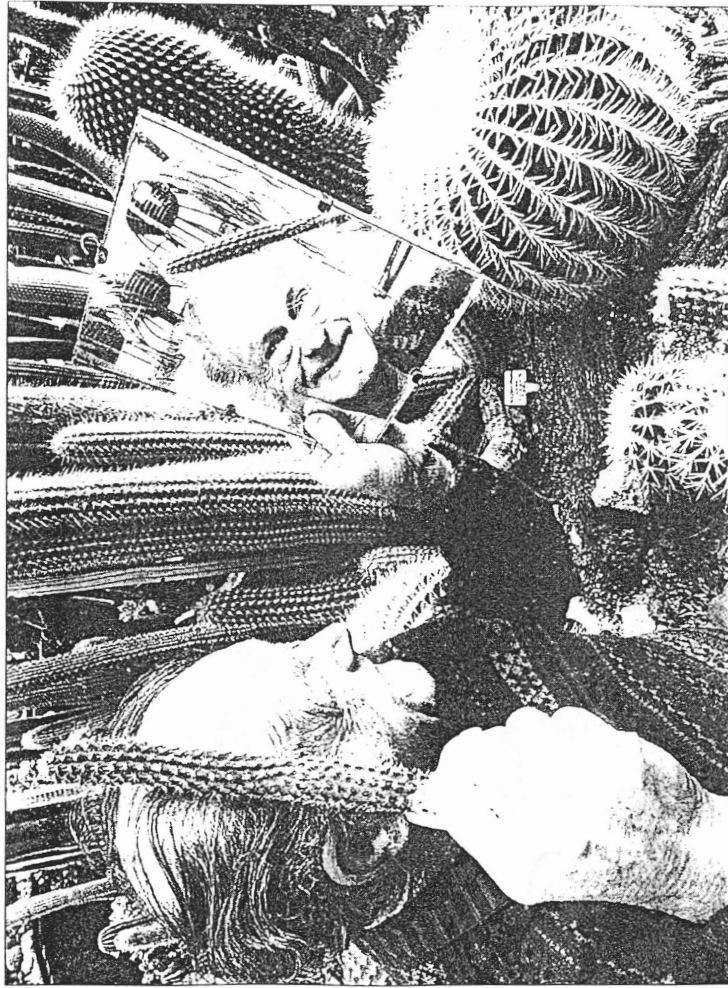
THE RECENT spell of unseasonable weather has set a number of gardens back and spring may arrive a little late in some areas this year. At times like this we can appreciate gardens other than those with velvet lawns and masses of blooms.

This month's prize-winning garden is the cacti garden of Upper Hutt's Herman Kortink. Kortink's interest began many years ago when he started growing pot plants. He built a glasshouse to grow them but became disillusioned when he returned home from work in the evenings to find the plants had 'flagged' - they couldn't take the heat of the day.

It's 35 years since he acquired his first cactus plant, a common peanut one, chosen for its ease of growth.

Kortink's interest, like his cacti, flourished and soon the first glasshouse was filled and a second, larger one built and filled with a unique collection of cacti.

To walk around the garden in this large cacti house is an experience.



HAIRY HOBBY - Herman Kortink with some of his hairy, prickly cacti.

Pictures: ROSS GIBLIN/The Evening Post.

FRUITS



achenes



caryopsis



follicle



legume



loment



silique



silicle

Capsules



loculicidal



septicidal



septifragal



poricidal



valvate



circumscissile (pyxis)



utricle



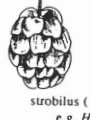
samara



schizocarp



strobilus (conifer)



strobilus (angiosperm e.g. *Humulus*)



balausta



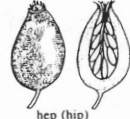
cupular fruit



nut



nutlets



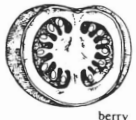
hip (hip)



balausta



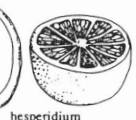
pepo



berry



pome



hesperidium



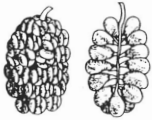
drupe



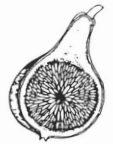
accessory fruit (with seed enlarged)



aggregate fruit



sorosis (multiple fruit e.g. *Morus*, *Ananas*)



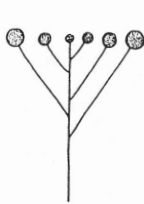
syconium e.g. *Ficus* (complete syconium) and *Dorstenia* (partial syconium)



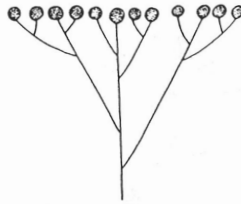
INFLORESCENCES



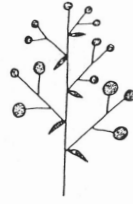
capitulum (head)



simple corymb



compound corymb



panicle



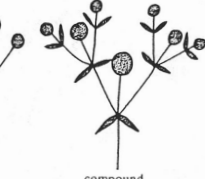
raceme

Cymes

dichasial cymes

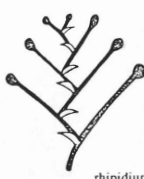


simple



compound

monochasial cymes



rhipidium (scorpioid)



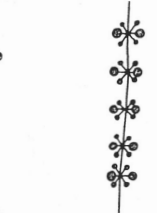
drepanium (helicoïd)



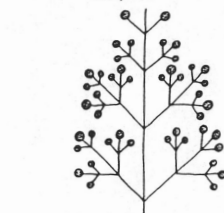
cincinnus (helicoïd)



spike



verticillasters



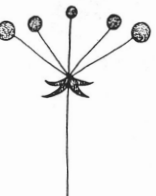
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spadix



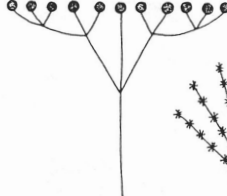
catki



umbel



compound umbel



branched umbel

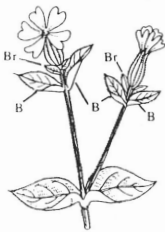


spicate umbel



racemiform umbel

Bracts (B) and bracteoles (Br)



floral bracts



involucre bracts



st (subtend)



