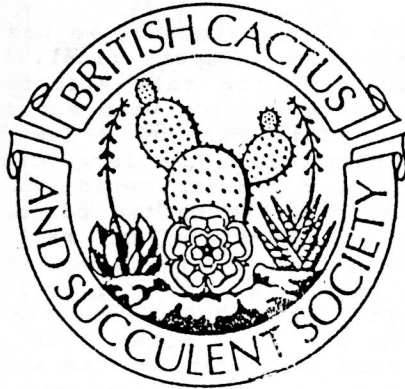


**Manchester
Branch**



NEWSLETTER

APRIL 1988

Editor...Peter Schofield

Suddenly things are happening. We returned from a few days in Spain to find *Mammillaria longiflora* spreading its exquisite pink striped flowers to welcome the sun, and all around it the other mamms are making their highly individual contributions. Gymnos are in bud, an *Echinocereus* is waking up, an *Aporocactus* is producing a magnificent show - and the first full watering of the season can begin. Twenty gallons of it, and two hours to and fro. We seem to have got on top of a nasty outbreak of mealy bug which crept up during the winter, although a couple of plants had to be immersed in alcohol and then rinsed down. They seem undismayed apart from the occasional 'hic'. A happy Easter to all our readers !

OUT & ABOUT

Members will sympathise with us in that we had to spend a few days on the Costa Blanca over Easter, finalising the purchase of an apartment. Bravely facing this enforced spell in the sun, we arrived on Alicante station with suitcases to be told "this train is broken". This gave us a few moments to look around and notice, in particular, the large clump of deep red-flowered amaryllis casually growing beside the track. As the week progressed we also remarked on the poinsettia trees, the ubiquitous geraniums, the carpets of rampant acid-yellow oxalis, the bougainvillea and the aloes in full flower. *Opuntia subulata* is much in use for private and civic decoration, along with flat-padded opuntias well-fruited, *agave americana* up to six feet with their towering flower spikes still evident from last year, yuccas and of course palm trees everywhere.

Down in Elche, in the remains of the ancient palm forest, lies what must be the most depressing town in the whole of Spain. Its parks, though, are amazing, with clivias for bedding out, twenty-foot succulent euphorbias lining the avenues and a large cactus garden which we saw on a poster but failed to find! In Benidorm itself the municipal flower beds are a delight, with arum lilies growing almost like weeds, but we were somewhat nonplussed to discover broad beans and spring onions in one. One of the more surprising sights of the week, though, was a hedge of hatoria!

Reading the English-language Costa Blanca News, we found an advertisement for Cactuslandia (ugh!) in nearby Altea and decided it was worthy of exploration. From Altea station a five-kilometre walk along the beach, then striking inland brought us to the *Jardin Artístico*. 150 Ptas (75p) admission includes free plant, and we were in a quite remarkable hanging garden - literally hanging onto an almost vertical south-facing cliff face. The walls are planted with crassula, aeonium, graptopetalum, portulaca, kalanchoe. One terrace holds a dozen *E.grusonii* almost a metre across and obviously well-flowered. Overlooking this is a huge, dazzling blonde bush of *O.tunicata*, and close to this a magnificent red-spined ferocactus with a fine head of red flowers. Various notocactus were coming into flower, as were six-foot tall cleistocactus and beds of mammillaria - generally of the small magenta-flowered species. Several columnar cactus had orange cephaliums down one side; elsewhere numerous severed lengths of assorted cereus were stacked to dry. A seven-foot *K.beharensis* had the most amazing flower heads, and massive euphorbias were in bud. A sales operation offers 3" pots of astrophytum, mammillaria, haworthia for £1.50, 6" mamms for £7.50, 10" cereus for £5 and 3" *A.victoria-regina* for £4; it was noticeable that although many of the plants enjoy Spanish sunshine, the Ferocactus clearly do not take to Spanish night temperatures and are all quite badly marked. All in all, a visit well worth making if you are in those parts.

CACTUSlandia



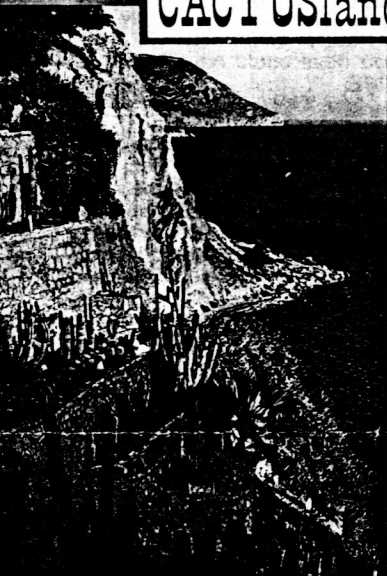
ALTEA (ALICANTE)

La Galera del Mar, 27

ENTRADA
EN EL KILOMETRO 135,8
CARRETERA
VALENCIA-ALICANTE
(POR EL ARCO BLANCO)



CACTUSlandia PARAISO
DEL CACTUS



CACTUSLANDIA is an exotic, artistic hanging garden on an impressive precipice of the most rugged COSTA BLANCA, where 1.500 different species of cacti and other succulents of all sizes and marvelous forms and colours give the most beautiful flowers within an exceptionally attractive landscape. In contrast with the desertic section you will enjoy a selection of subtropical fruit-trees like: BANANAS, AVOCADOPEARS, SUGARAPPLE, GUAYABOPEARS, MEDLARS, POMEGRANADE, MANGO, ORANGE and LEMON-TREES, and others. Beautiful palm-trees rise majestically over this paradise. A conjunction of natural beauty will make you dream about something you never could have imagined. Bar and sale of cacti. WELCOME.

IN CASE YOU MISSED IT

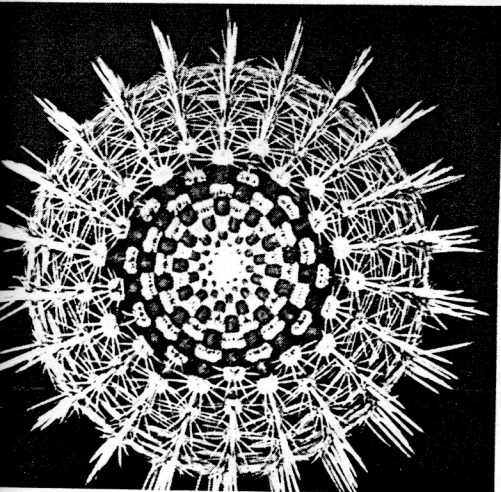
Another good turn-out at the March meeting welcomed Steve Jinks from North Fylde on his first visit to us. The subject was *Notocactus* & *Gymnocalycium*, and was illustrated by a wealth of slides, many set up in a simulated desert environment.

Notocactus, we were told, are not, in fact, typical desert plants; coming from Uruguay and surrounding areas they experience comparatively heavy rainfall and can lose their roots if allowed to dry out too much in winter. Starting with the type species *N. ottonis*: Steve has trouble keeping this, but it offsets readily with offsets already rooted and able to flower in their second or third year. The yellow funnel-shaped flowers of this group last two or three days. Several varieties were shown and reference made to easy hybridisation. *N. fuscus* in the same group is quite different, with many ribs and spectacular flowers; *N. caespitosus* has very small heads, whilst *N. crassigibbus* & *ubermannianus* look more like *Gymnos*. These latter were found in the 1960's, on the Brazil/Uruguay border; *N. ubermannianus* has magenta flowers

The group around *N. mamillopsis* is heavily spined and includes *N. submammulosus* with long white spines, 13 ribs and almost bell-shaped flowers, *N. rosoluteus* with sporadic pink flowers. *N. rutilans* with pink-red flowers whose petals bleach in the sun, and the bluish bodied *N. buiningii* which links the genus with *Wigginsia*. The *N. scopa* group includes the very easy *N. succinus* and the very caespitose *N. Neobuineckeri*. *N. horstii*, *herteri* and their group develop corky bases early unless grown on very fast, but flower beautifully, *horstii* itself having magenta blooms. *N. leninghausii* is among a group found more in S. Brazil and S. Paraguay and of variable hardness. *S. schumannianus* marks very quickly at temperatures below 50 F, whilst the splendid clumps of *N. magnificus* seem quite safe down to 35 F. *N. leninghausii* itself is, of course, tall with open pale yellow flowers which appear when the plant is five or six inches tall

N. heselbergii and *graessnerii* are still often identified as *Brazilicactus*. The former has bright red flowers lasting a week or more, but the speaker finds it difficult to keep; he finds the latter reluctant to produce its greenish flowers. Finally *N. buineckeri* is one of six species once grouped under *Parodia*, but geographically distinct - and very difficult to grow.

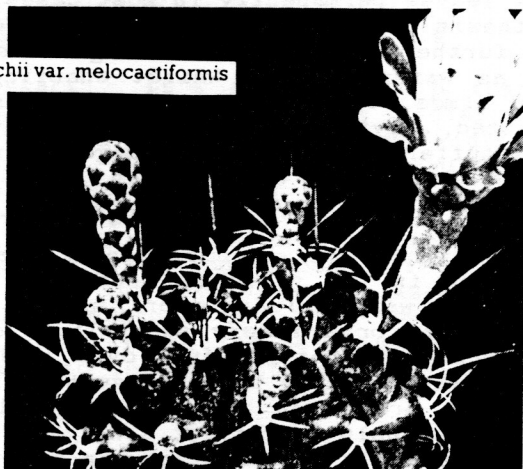
Turning to *Gymnocalycium*, this may well have the distinction of being the most southerly of all cactus genera in its wide distribution. It is divided into five subgenera by fruit/seed characteristics. Again there is much hybridisation giving many apparent varieties and alternative names. The type species *G. denudatum* is very easy and has white flowers with cream stamens; *G. uruguayense* forms substantial clumps. The well-known *G. bruchii*, small-bodied with lilac flowers is a robust high-mountain plant flowering early; *G. andreji* scorches easily in excessive sunlight; *G. baldianum* has red flowers



White petals with a slight red throat distinguish a second group including *G. moserianum* and *stillatum*. Photos of these in the reference collection at Holygate prompted the remark that labels in the collection have become increasingly unreliable as photographers move them to gain a better shot and then omit to replace. Please note ! The third group centres on *G. mihanovicii*, mostly needing temperatures above 50 F to prevent marking and even rot. This particular species with its pink flowers is another which is very variable and has many alternative names; the variety *melocactaeformae* is more robust than many.

A group of larger plants with strong spination includes *G. bicolor*, white flowered with a red stripe, *var. ferox* with even more robust spines, and *G. homilispinus* up to 18 ins. tall with very pink flowers, deeper at the tips. Finally a "dustbin" group includes the recently introduced *G. horstii*, looking like *denudatum* when young and growing fast when watered and *G. bueneckerii* regarded by some as a variant of the former even though round 120 miles further north

GYMNOCALYCIUM mihanovicchii var. melocactiformis



SUCCULENT PLANTS - PART ONE

Generally speaking, succulent plants live under extreme conditions: in particular, extremely high temperatures and low or infrequent rainfall. They are *xerophytic* - adapted for dry conditions. More specifically they are *succulent* - they are able to store water in sponge-like tissues containing large cells and air spaces. This capacity to store water, though, is supplemented by other adaptations which explain much of what we see in our collections.

One clever trick which passes unnoticed is that of two-stage photosynthesis. Most green plants take in carbon dioxide during the day and - using the magnesium compound called chlorophyll - join it with water to build up the carbohydrates which make up the structure of the plant. Problem: how to prevent water vapour escaping through the same openings (*stomata*) used to take in air containing carbon dioxide. Solution: only open the stomata at night, when water loss will be lower. Problem: photosynthesis cannot take place in the dark, because chlorophyll takes up solar energy and transmits it to the combining materials. Solution: store the carbon dioxide overnight (in the form of an organic acid) and regenerate it within the plant next day. This system, discovered 175 years ago, is referred to as crassulacean acid metabolism (CAM).

More obvious are the methods which have evolved to increase the ability to take in water and reduce the rate at which it is lost. Very many succulents have "poor" root systems - instead of anchoring the plant the roots are thin, fibrous and widely spreading at little depth - ideally placed to capture as much of the limited rainfall or dew as possible. In habitat the roots will often be under rocks where moisture may remain longer. In small pots some may dry out so completely as to be unable to regenerate themselves

To reduce water loss some succulents are *deciduous* - leaf shedding - to a remarkable degree; *Kleinia articulatus* is a classic example. The cactus family take this to the extreme of abandoning leaves permanently in most cases, and allowing all photosynthesis to be done by a swollen green stem. This presents the further problem of allowing the stem to shrink considerably as water is lost whilst enabling it to swell again in good times. It is in answer to this need that most cacti are ribbed, giving a unique flexibility in size and shape without suffering structural damage. Even so, watering on a generous scale can exceed even their capacity for expansion and splitting may occur.

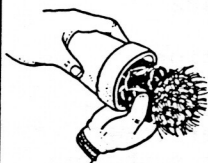
Additional or alternative water retaining features include massive reduction in the ratio of leaf area to bulk (e.g. lithops), a thick waxy *epidermis* or "skin", flowers which open only at night, or are very short-lived or very small, and hairs or bristles (particularly over hollows where the stomata are situated). White hairs, together with spines and surface markings, are often found on high-altitude plants and presumably also help to reflect sunlight and prevent the internal temperature rising more than can be avoided.

NEXT MONTH...Judging and Showing by GEORGE HOLLIS
The Table Show is Echinocereus & Gasteria; we had a magnificent first show at the March meeting, with some sixty plants to admire - lets keep it up!

Saturday May 14th...7.00 for 7.30

Repotting

Wear gloves to protect your hands and handle plant with care to avoid damaging the sharp spines.



1. Remove plant from old pot and examine root ball. If there are plenty of hair-like white roots on surface, it needs repotting. Check for signs of pests. For treatment see pp 12-15.



2. Gently crumble root ball with fingers to remove old compost but be careful not to break roots. If compost falls away easily and there are plenty of new roots, plant may be repotted in same pot with fresh compost.



3. If root ball is solid, prepare pot 1 size larger with drainage material and 1in (2½cm) layer of fresh compost. Place root ball on compost.



4. Trickle fresh compost around root ball, firm down gently and add final top layer of grit. Compost level should be the same as before, about 1in (2½cm) below pot rim. Do not water for 2 weeks, to allow roots to grow into new compost.

DON'T PANIC

You haven't missed the Branch Outing ! We're just a bit late in publicising it this year. That means we will all need to work a little bit harder to make up the numbers and ensure that everyone knows about it. Here are the details:

SUNDAY 8th MAY

Leaving Aytoun Street, Manchester, 8.30 a.m.

Note the earlier start - it's a longer trip than usual, visiting Brookside at Hitchin, and East Midlands Cactus Nursery at Milton Keynes. Haven't you always wanted to see Milton Keynes for real ? Now's your chance, and in the best possible company. The cost will again be £6 if we can secure 40 bookings, but will edge up if numbers are lower - for example, if we can only find 30 customers it would become £8 a head. Don't forget to bring goodie-boxes: it's one of the more amazing features of the city nightlife as box after box of exotic plant life emerges from the returning coach. Especially, though, don't forget to tell anyone who may not be at the meeting and to let any interested friends know at once.

ROUND THE SOCIETIES

BOLTON....Tuesday, 12th April, 7.00 for 7.30, Bolton Town Hall: Mrs.C.F.R.Evans of Shipley, "Echeverias"
Table Show: Columnar cactus, Sedum.
Contact Philip Barker on 0942 56440

Tuesday, 10th May, as above: Mini-Show, details of which were given in the March newsletter.
See John Collins or Philip Barker re entries.

WARRINGTON...Weds., 13th April, 7.30 for 8.00, Penketh Leisure Centre: Mr.A.Mann (Crewe), "Rebutias"
Contact Barbara Beesley on 051-424 9432

Weds., 11th May, as above: Plant Auction

WIGAN.....Weds., 20th April, 7.15 for 7.45, Independent Methodist Church, Stopford St., Higher Ince:
F.Evans on "Euphorbias"; Table show - euphorbia
Contact John Harrison on 0942 218465

HESWALL...Monday, 25th April, 7.30 for 7.45, Heswall Hall
Mr.J.A.Briscoe: "Kenya"; Contact Mr.P.Robson on
0244 537393

PRESTON...Thursday, 5th May, 7.00 for 7.30, St.Andrews Church Hall, Blackpool Rd., Preston: Albert Pritchard "Euphorbias"; Contact Jean Kendall on
077 478 2957

EAST CHESHIRE...Monday, 9th May, 7.30 for 8.00, Wilmslow Public Library: Mr.W.Keen, "Stapeliads"; table show Notocactus & Stapeliads. Contact Barbara McKnight on 061-431 8148

The library copy of The Encyclopaedia of Cacti (Cullman, Gotz, Groner) is still missing and has been since Christmas. Please can it be returned quickly ?

B. C. S. S. MEMBERS PLEASE NOTE

As noted at the last meeting, elections are to be held for two offices in the national Society - the officers of which have not changed for the last 21 years ! There are three nominations for Chairman; please do vote. Our own Geoff Bailey has been nominated as Secretary to succeed John Mullard. John died recently and Harold Gaulton represented us at the funeral. It is unclear yet whether there will be other nominations for this office; if so, we hope Geoff will have the full support of all local members. It would be good to have a direct link with national affairs.