

# **Gaultonia**

Newsletter of the  
**Manchester Branch**  
of the  
British Cactus and Succulent Society

Winter 2005.



**Rebutia narvaesensis**

Photograph by I Crook

## Editorial

It has been some time now since we last produced a branch newsletter. Since that time several advances in technology have taken place. Digital photography has become widespread over the last two years and many people now possess a digital camera. Also, colour printing and photocopying has become widely available and so the cost has fallen considerably. This all add up to some exciting new possibilities for a branch newsletter.

It is anticipated that the branch newsletter will make its return on a quarterly basis. But, more than ever, it is heavily reliant on branch members making a contribution in some way. There are many ways to make a short contribution. This may be by digital photography or text. I am happy to accept handwritten or typewritten articles or news items or electronically on floppy disc, CD or DVD. Articles can also be sent to me at my new e-mail address:

During the course of this year we also plan to have a digital camera at each meeting. If you have a plant or plants for the interest table please bring them along. I anticipate we will be able to photograph these for inclusion in future newsletters.

Our branch programme for 2005 once again looks like an exciting mix of talks from good quality speakers. If you would like to see a topic covered next year please mention this to Peter at any meeting and I am sure he will make every effort to accommodate your wishes. However, don't delay too long as I understand some slots for 2006 are already full!

Now is also the time of year to consider branch trips for the summer months. Last year many of us made our way to the National Show in Spalding for the day for what was a thoroughly memorable day out. If you have any ideas for an organised trip for this year, please discuss this with any member of the committee.

Finally, the roots of our society are 60 years old this year. Bradford branch celebrate their sixtieth anniversary in early April with a day long mini symposium which will highlight their history. This promises to be a memorable event and further details are given later in the newsletter.

Best wishes and good growing for 2005.

Ivor

# SOCOTRA'S STRANGE TREES

By Peter Bint

With the talk "Socotra...Dragon Tree Island" coming during this year's schedule I thought this article might just whet the appetite a little.

**S**OCOTRA is an interesting island and has many parallels with Madagascar. It was noted by Darwin that small, oceanic islands can produce many species of closely related organisms, especially birds, which are found nowhere else. Plants also exhibit this phenomenon and the island of Socotra, like Mauritius and Madagascar, both in the Indian Ocean though further south, is one such treasure house. Socotra lies just off the Horn of Africa, 150 miles to the east off the northern coast of Somalia. The island is about 80 miles east to west and, at its widest, no more than 25 miles across north to south. Socotra has been separated from the mainland long enough for many unusual tree species to have evolved untroubled by large grazing animals but with all the stress of regular, prolonged drought. This is why Socotra's trees are unique.

## THROUGH THE AGES

**F**or centuries herbalists and astronomers knew of a strange substance which was supposed to have powerful healing properties and was also rumoured to possess magical powers. It was known as Dragon's Blood. It came in hard, rounded lumps that looked as though they could indeed be dried droplets of blood which may well have come from a large animal - even a dragon. Ancient writers, such as Pliny, described a strange, mountainous island, situated far away in the eastern ocean, where dragons were thought to live. Socotra has even been linked with the tales of Sinbad the Sailor who was shipwrecked on an island where the legendary, monstrous bird, known as the roc, lived.

The first modern explorations of Socotra were led by the Scottish botanist I. B. Balfour in the 1880's. There was, of course, no sign of any dragons but instead there were a range of weird and wonderful plants, the like of which had never been seen before. Above the coastal plain they discovered that much of the island was wooded, yet of all the trees they found, practically none resembled any known species. The trees of Socotra are about as different from our trees as they could be. Not only are most of the trees on this island found growing naturally nowhere else on this earth, but the regular periods of severe drought have resulted in

some very odd looking specimens. Swollen-trunked and bottle-shaped trees predominate, giving an out of this world appearance to the landscape.

It is estimated that Socotra has been separated from any mainland, be it Africa or Arabia, for a minimum of 1.6 million years and possibly as long as 6 million years. The higher mountains have almost certainly never been submerged below sea level for many million years more than the time of the separation. It is precisely this isolation that has produced so many unique plants. About 800 plants exist on Socotra one third of which are wholly endemic (found nowhere else in the world) and 25 of those are trees.

## SOCOTRA'S TREES

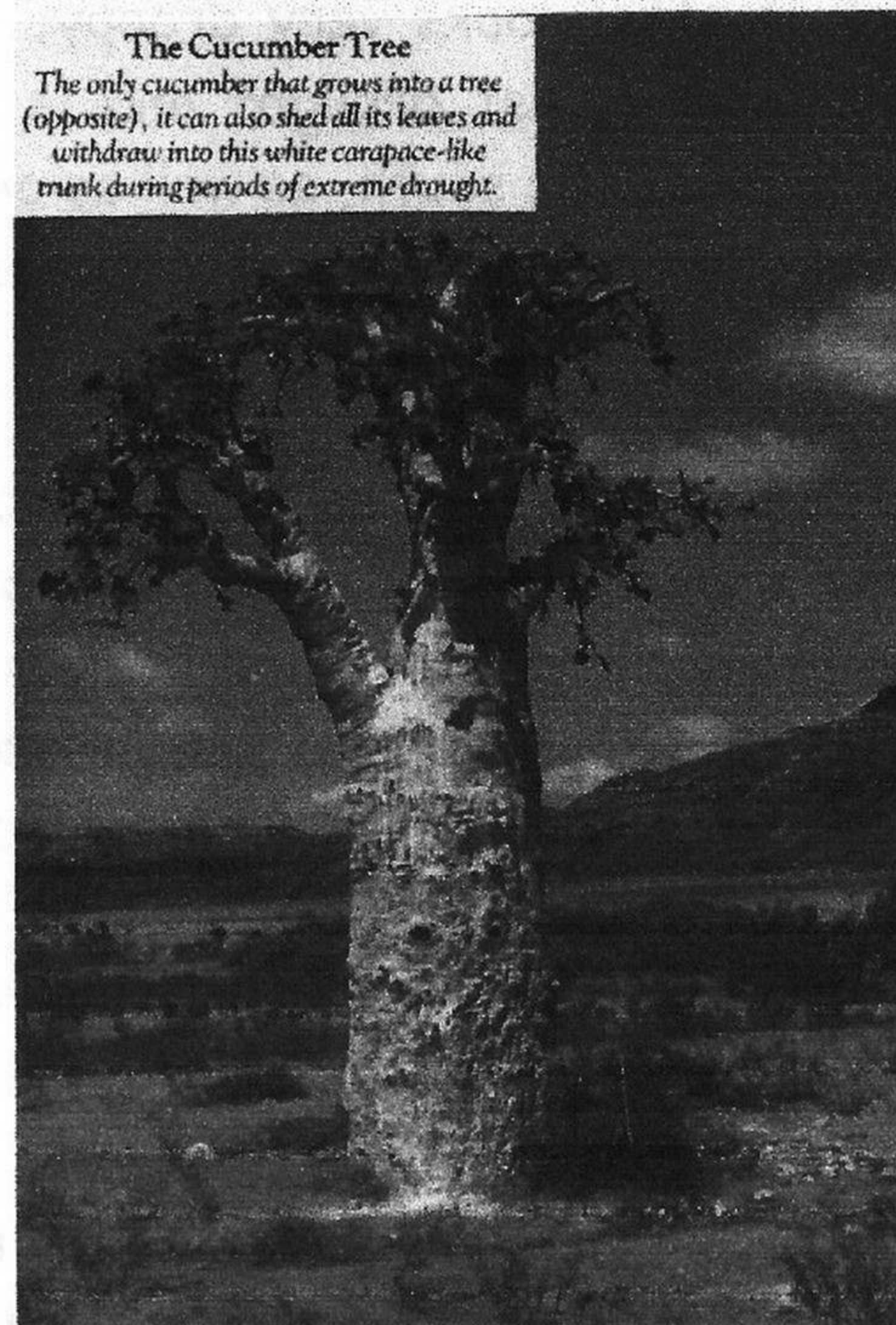
**D**ragon's blood, of course, does not come from dragons, real or imaginary. It is the dried resin of one of these endemic trees. Distantly related to palms, *Dracaena cinnabari* (the dragon's blood tree) resembles a giant mushroom when viewed from the distance. It is normally found in very exposed places, especially cliff tops, which makes its appearance even more dramatic. The main trunk grows straight for 3-4 metres before dividing into an absolute host of branches. These then form an inverted cone, with a circular of spiky foliage on top. A single tree is indeed a strange sight; a hillside covered with them is one of the wonders of the tree world.

*A relative of the dragon tree of the Canary Islands, dragon's blood trees are endemic to Socotra. They can be found covering whole hillsides on the island, creating one of the strangest landscapes in the world.*



A relative of the dragon tree of the Canary Islands, *Dracaena draco*, the Socotran dragon trees can be found covering whole hillsides, creating one of the strangest landscapes in the world. For centuries the people of Socotra have collected the lumps of resin that ooze out from between the branches. To obtain the best quality resin certain trees are picked

out, climbed at certain times of the year and the resin drops carefully collected. The commoner variety is made from freshly trimmed sections of bark. Using knives the people strip off the bark, pound it with a stone, then cook it in a pan over a wood fire. Quickly the bark becomes an oily mass, dark red in colour. This is cooled on a stone in cakes the size of a hamburger. This resin contains various compounds, including cinnabar, and medicinally it is used as an astringent and an involuntary muscle relaxant. On Socotra it is used internally and externally to treat a range of ailments. In Arabia it is much sought after as it is believed to have magical properties in addition to its medicinal use. Dragon's blood is also used as a dark red glaze on local pottery, from water vessels to censers for burning aromatic resins



Another endemic tree, which is even stranger than the dragon's blood tree is the cucumber tree. This is *Dendrosicyos socotranum*. The bloated trunk is whitish in colour and grows to a height of about 4 metres. This trunk is topped with an untidy crown of short, stubby branches. The leaves appear at the end of the branches looking for all the world like green toothpaste squeezed from a monstrous white tube. During the drought period the leaves turn brown and drop off, leaving the smooth woody parts to endure the dry summer winds. *D. socotranum* is the only member of the cucumber family, Cucurbitaceae, which grows into a tree, making it typical of the strange organisms that can evolve to suit extreme climatic situations in exceedingly isolated places. Whilst it is

likely that seedlings nowadays are grazed by goats these are a reasonably modern introduction. In all likelihood these trees have had no large herbivore present during its evolutionary eons. Seedlings nowadays can only survive the attentions of the goats if they are lucky enough to germinate under heavy cover of dead leaves around palms or under dense, low bushes in the semi-desert surroundings. During times of extreme drought the local tribesmen sometimes cut down a cucumber tree, cut it open and feed the pithy, soft heartwood to their goats.

In the winter months the rains induce growth of flowers which are both small and yellow. The petals are narrow. The fruits are diminutive cucumbers which turn red upon ripening. The trees grow on the coastal plain and the lower slopes of the mountains some of which are limestone, some granitic. Although it often looks very droopy, the cucumber tree seems to be highly efficient against drought and is plentiful in desert conditions on the Nogud plain of the south, as well as on the most exposed cliffs of the north coast where it endures the full force of the north-east trade winds.

A further tree with strong succulent qualities is *Adenium socotranum*. It grows among both the previously discussed trees, both near the coast and further up the mountain slopes. It is an even more extraordinary, and more desirable to succulentophiles, and known locally as the sack of potatoes tree. It has been described as a poisonous lump, a sculptors reject, a failed attempt at the portrayal of bulk without content. Despite such scathing comments from non succulent minded writers it is a much sought after plant that taxes the growers ability and pocket to bring it through successive winters in this country. Some individual trees seem to suggest human forms, especially as there are frequent small depressions in the smooth pale bark that give the appearance of navels in a pallid skin. Its foliage, produced after flowering, is fairly scanty. The flowers however are a wonderful picture, a mass of attractive pink flowers, produced in the islands winter. Such is their beauty the locals call it by a name that translates as 'desert rose'.

The plant possesses a strong poisonous sap, a cardiac glycoside, which is used by the local people to poison fish. They throw chips of *Adenium* wood into the pools when fish are abundant, making them lethargic and easy to catch. The seeds are probably distributed by birds which would explain why seedlings often appear in the strangest places, especially on cliffs and in clefts on limestone boulders. The seedlings grow 'normally' until they attain a height of 30cms (a foot), when they begin to assume

the shape of a Chianti bottle. For the rest of their lives they grow as much laterally as vertically. Thus the succulent success of the Adenium is greater than that of either of the previously discussed trees. Adenium groves cover hundreds of hillsides throughout the island, making it appear as though huge fairground stalls have been set up.



**The Sack-of-Potatoes Tree**  
Known locally as 'Desert Rose' on account of the attractive pink flowers it produces in winter, this tree (above) can sometimes suggest the human form, with the navel-like depressions in its trunk.

Other interesting trees include *Dirachma socotrana* and *Punica protopunica*. These are rarer and semi or non succulent. *Dirachma socotrana* is a wiry tree that grows in crevices on limestone hills. Its attractive foliage is not unlike the oak but somewhat smaller. The flowers are unusual in having seven or eight petals per flower. The fruits are like those of a *Geranium*. It was placed in the *Geraniaceae* in the 1880's but some consider it as needing its own family, the *Dirachmaceae*. *Punica protopunica* is the only known wild relative of the pomegranate. The specimens found there vary greatly in shape size and colour, suggesting a large genetic diversity which could be useful for plant breeders in the future.

In the last twenty years a study of the trees on the island has established many facts. The people of the island rely heavily on the trees for human survival as a result of the regular droughts. They keep goats, sheep, camels, donkeys and the Socotran breed of dwarf cattle. Date palms are cultivated in the river valleys and, apart from rice which is a recent import, depend on dates, milk, meat and wild fruits. It has been clearly established that nearly all the trees, as well as many other plants, are used for fuel, food, animal fodder, building materials, medicines dyes, glue, fibres, tanning materials, insecticides, cosmetics, tinder and other products - including a sticky lime, with which to trap birds, made from the latex of a species of fig. A number of endemic trees are used for animal fodder, and a quantity of gums and resins are collected. However the people carefully preserve the trees so that no overuse ever occurs.

Two species of endemic trees are used for the production and collection of resin, namely frankincense from *Boswellia socotrana* and myrrh from *Commiphora planifrons*. However that is not the sole use for those trees. The entire ecosystem has been carefully controlled and maintained for several millennia so that a wide range of products are available to the local people on a regular and sustainable basis. Though some vegetation is overgrazed there is absolutely no sign of soil erosion which is found in so many semi-arid nations of the world that are exposed to massive overgrazing.

## SOCOTRA'S CLIMATE

**T**he climate of Socotra is sub-tropical but dry. There is a prolonged and intense dry season lasting several months of the year when the hot north east trade winds blast the island unremittingly causing severe drought. Rain is normally experienced in December and January, and less frequently in May and June, though the amounts are irregular. Total rainfall does exceed that featured in other low-lying parts of the Arabian region. The annual average for the north coast is 6 inches whilst the Haghier Mountains in the west central region are favoured by as much as 20 inches.

## THE PEOPLE OF SOCOTRA

**T**he people are of mixed Arabic and African descent. They are entirely Moslem and number around 40 - 50,000 inhabitants. Arabic is spoken only on the coast whilst the rest of the population speak Socotran, derived from languages spoken in the Dhofar region of Arabia. At one time the region was Christian, probably until the early



1700's as at least one early church has been discovered. The Portuguese ruled the island between 1507 and 1511, after which it was ruled by the Mahri Sultan from what is now the eastern part of southern Yemen. British 'protection' was afforded the island in the late 19<sup>th</sup>. century. 1967 saw the 'sultanate' abolished when the island became part of the independent state of South Yemen. This finally united with North Yemen in 1991 to form the Republic of Yemen, having its capital in Sana'a.

**Bibliography.**

The Tree Book by J. Edward Miller first published by Collins and Brown in 1992. Also a Channel 4 series.

Editors note: The Italian Society, Cactus & Co has just issued a new publication this month called Socotra, the lost Island by Alain Christophe and is available to subscribers or from book sellers.

## **Compost!**

By Ivor Crook

What happens when you lock several cactus enthusiasts in a room. Obviously they talk about cacti but inevitably very quickly they will also talk about the different compost mixtures they use for their plants. Over the years I have listened to many people wax lyrically over the benefits of various additives and ingredients. But, at the end of the day, most of us grow most of our plants in a compost that is a mixture of John Innes and Gravel.

However, I have recently taken a radical departure from this basic mix for some of my plants. Following an evening of surfing on the Internet, I noticed an orchid show in Bolton last October. With my wife observing over my shoulder a short trip up the M61 was hastily arranged for the following weekend. I had never really paid much attention to orchids before but rapidly realised the majority share a habitat with many epiphytic cacti. Orchid growers too are mad about compost. Various mixes are advocated for different genera and often different species within each genus but the basic ingredient of all orchid mixtures is chipped bark. Sometimes sphagnum moss is added to retain a little moisture and activated charcoal to keep the whole mixture sweet. Watering regimes consist of pouring about two litres of water through the mix once a week and allowing it to drain freely away. The reasoning behind this is that in nature the plant roots require a free run in loose compost of high organic content with little water retentive properties. This allows lots of air in contact with the roots whilst discouraging rot.



The following morning the obvious hit me like a sledge hammer. Why do we grow epiphytic cacti in standard cactus composts when in nature they grow like epiphytic orchids? Surely they should grow better in epiphytic compost?

After several weeks thought I took the plunge. Most of my rhipsalis have laid neglected under the staging for the last few years. As the first rhipsalis emerged, several bits fell off. I cleaned these up and placed one in standard orchid compost in a standard depth pot and subjected it to a weekly watering regime of one to two litres of water poured through the compost. Whether it was the shock of some attention or the lack of roots my poor rhipsalis cutting soon wilted significantly.

After further thought, reading and an amble around my local garden centre I took the plunge. I decided the plants needed more moisture around the roots. I mixed some rougher (and a lot cheaper) garden bark with some sphagnum moss and a little activated charcoal and planted up several plants in this mixture in hanging baskets. I secured some large mug hooks from B&Q into the wooden beams of my potting shed, which has a polycarbonate roof and hung the baskets from the hooks. They are watered most Sunday afternoons and misted 4-5 times a week around mid-day. Minimum temperature has been about 8 degrees Centigrade.

I have been rewarded in the last few days by flower buds appearing on 6 out of the seven species that I have moved to this compost and watering regime. Whether this is due to an increase in light or moisture or the compost I can only guess but the plants seem to like the regime better than being planted in standard compost in pots. At the very least it has kept me entertained,, occupied and my brain active through the late autumn and early Winter months!



Left- *Lepismium monacantha* in chipped bark, sphagnum moss and charcoal compost. Right- *Rhipsalis* cutting in 100% chipped bark.

## NEWS ITEMS

### Bradford Branch

Saturday 9<sup>th</sup> April 2005.

At Wilsden Village Hall

"60th Anniversary Event"

10am to 4:30pm.

Speakers will be Ray Stephenson and Graham Charles.

"1945 and all that", a talk by John Cox about the formation of our Branch,

plant sales, souvenir booklet and lunch.

Contact: Mr David E. Quail.

for more details.

### Warrington Cactus Mart.

Saturday April 2nd 2005 at Woolston Leisure Centre, Warrington. Open from 10.00 to 15.00. Admission £1.00. Refreshments available.

### Open Days

Hull Branch Open Day Sunday 7th August

York Branch Open Day 21st August.

Trips may be organised if enough people are interested

## **International Euphorbia Society**

We are delighted to announce the formation of the International Euphorbia Society, dedicated to the furtherance of knowledge of plants of the Euphorbiaceae and of their cultivation.

The society will produce a full colour A4 size journal three times a year, with fully illustrated articles on all aspects of this fascinating plant family, to appeal to beginners as well as specialists. The journal will be refereed by well known botanists including Susan Holmes, who is also our President. The language will be English.

Cost of membership is £15. If you want to subscribe there is an on-line facility for payment by credit card or alternatively you can write to our Treasurer, Philip J. Wilson, UK. Cheques should be payable to the International Euphorbia Society.

The officials of the society are as follows:

President: Susan Holmes

Vice-President: Daphne Pritchard

Chairman & Secretary: Alan Butler

Treasurer: Philip Wilson

Editor: Volker Buddensiek

Assistant Editor and Librarian: Pjotr Lawant

Publicity Officer and Membership Secretary: Frank Vincentz

Web Site: Ellen Van Veldhuisen

Non-Executive officials: Rikus Van Veldhuisen and Jaap Keijzer

For further information please contact Frank Vincentz.