

British Cactus & Succulent Society

Southampton & District Branch Newsletter

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Editorial

Despite the relative lack of sunshine over the last month, several more cacti have bloomed over the past few weeks and the list of genera with flowers has expanded to include *Gymnocalycium*, *Neoperteria*, *Echinopsis* and *Notocactus*. There was even a freak example of a Christmas Cactus flowering (indoors)! Amongst the succulents, the *Haworthias* are starting to green up nicely after having received a few waterings.

Announcements

Thanks are due to Mark and Rebecca Jakins for holding an "Open Day" last month. The weather on the day was pleasant – sunny without being too hot – and several members visited their collection and enjoyed a slice of cake too.

Tony Grech will be opening his collection for an **Open Day** on Saturday 14th June. He lives in Bitterne (within a couple of miles of our meeting hall) and maps are available from the front table. Visitors will be welcome between 2pm and 5pm, and refreshments will be provided.

Portsmouth Branch will be holding their **Summer Show** at Wickham this coming Saturday (June 7th).

The **Branch Dinner** will be held on the evening of Friday July 11th, at the same location as last year (the Luzborough House, situated between Romsey

and North Baddesley). Please let David Neville know if you plan to attend.

Margaret has received raffle tickets which are intended to raise funds for the National Show. The tickets cost 20p each and there are several cash prizes, ranging from £25 to £200.

Later this month, we will be staging a display with a plant sales table at the **Sir Harold Hillier Gardens** (Jermyn Lane, Ampfield) on 21st-22nd June. Although we will have enough volunteers to man the display and sales table, please do drop in if you are passing by during that weekend.

Last Month's Meeting

Plants of Interest

There was only one *Plant of Interest* at the May meeting, and this had been brought in by Jim Roskilly. He mentioned he had got it from either David Neville or Margaret Corina last year. It was a *Bulbine frutescens* and it was in flower – the spikes were 18 inches tall and bore a series of orange blooms.

Grafting – Practical and Slides

Stuart Riley started his talk by mentioning that these were going to be his first grafts of the year. At one time, more than 50% of the plants he sold were grafted, but these days he tends to sell more succulents than cacti, and hence there's less need to graft plants. During the first half he would talk about grafting and then later on he would show us some slides.

He stated that some people don't like grafted cacti, but when you think about plants sold at garden centres, many trees and shrubs such as *Wisterias* or *Roses* or *Acers* tend to be grafted.

Grafting involves growing one plant on a different plant and it is done for a number of reasons. It can be used to propagate plants. The results may be functional and not necessarily pretty, although if appearance is important, then the lower section of

the graft (the *stock*) can be hidden from view and buried under the soil. The top section of the graft is called the *scion*. Grafting can also be used to increase the strength of the plant being grafted – if it does not grow well on its own roots, then the graft may allow the plant to grow more vigorously.

Sometimes seedlings of a plant will develop with variegation or no chlorophyll (he illustrated this with a plant of *Gymnocalycium ragonesei*) and the plant may be weak or unviable on its own roots. A graft could help supply the plant with the nourishment it needs, allowing it to develop to maturity.

Grafts are not performed just with cacti. Euphorbias can be grafted on each other and he also had a variegated Plumeria on a graft. It is not possible to graft succulents onto cacti or vice versa. Within succulents one has to use stock and scion from the same family. Some genera (e.g. aloes) cannot to be grafted. Stuart mentioned that grafts should be done for a reason – there was no reason to graft a plant which grows easily anyway.

He then started to describe the mixed collection of grafted plants he had brought along. One of the plants was a red *Gymnocalycium mihanovichii* on Hylocereus stock. He mentioned that Hylocereus was tender and it was hard to keep it through the winter but these days the stock seems to be more tougher. Trichocereus also makes a good stock – it is tough and almost impossible to kill. He used to propagate Trichocereus for use as the stock but now just buys it in from Holland early in the spring

The first time he saw *Geohintonia mexicana* and *Aztekium hintonii*, they were grafted onto Pereskopsis. But he has since grown it on Echinopsis stock with good results. One problem which he illustrated with one of his plants is that the Echinopsis base can form offsets and these need to be knocked off. Fortunately each areole can only produce one offset. One option is to cut off the areoles on the stock. Last year he was somewhat surprised to see plants propagated on *Ferocactus glaucescens*. This is quite a good plant to use since it does not offset and it is also tough. However the spines do need to be removed!

Grafting can be used to save plants too. If a plant starts to rot, one can remove the diseased tissue and try and propagate it from the remaining piece. Grafting can be performed at any time of the year but the ideal time is early May when the plants have emerged from the winter rest and are about to commence growth. This also gives the grafted plant

the whole growing season to establish itself.

Another point to note with grafting is that it can change the appearance of the scion. An Ariocarpus growing on its own roots compared to the same species growing on a graft can look very different. The type of stock can also make a difference – if Ariocarpus is grafted on to Echinopsis, it forms single heads and grows steadily. However, on a Hylocereus, the Ariocarpus would likely offset in all directions. Grown on a Ferocactus it also tends to produce a single head. Pereskiosis has thin stems and is not a pretty plant to use for grafting, but its small size means it is good for small scions or seedlings which are only a few days old. The graft grows 20-30 times faster than a normal seedling. John Miller from the North had flowered an Ariocarpus in just 18 weeks by grafting a seedling.

Another reason to use grafting is to propagate plants. Stuart had an example of the unusual *Astrophytum* cv. Lotusland which is a monstrose form of *A. myriostigma*. One can take off the small offsets and graft them to get instant plants. Some Opuntias are also ideal for grafting. The knife he uses for grafting is an 18mm snap-off blade knife with a extendible blade. Normally the blade has several segments and you just snap off a piece when the tip goes blunt to expose a new sharp tip. However for grafting, he uses the entire length of the blade to slice through the stock and scion. Each blade tends to last around 100 grafts and he mentioned it was also useful thing to carry when visiting someone's collection! Some people insist on sterilising the blade with antiseptic or alcohol after every use but he admitted he just wiped the blade on an old t-shirt and hadn't suffered any undue problems.

Another plant which wouldn't grow on its own roots was a variegated Ariocarpus from Czechoslovakia – it had no chlorophyll and was a reddish colour. He mentioned that it offset quite well. A cristate Strombocactus was growing on a *Stenocereus victoriensis*. The stock had formed an offset but this could be removed and grown on for use as extra grafting stock. Strombocactus grafted onto an Echinocereus tends to grow quite well with no die-back. He had a nice specimen of *Echinocereus davisii* and he decided to create more plants by just chopping off the top. The top section could be grafted and in the meantime, the bottom section can also start to offset. Indeed, without grafting, some plants just wouldn't be available in reasonable quantities. *Mammillaria goldii* is a small growing plant with big flowers and is very popular. Grafting allows it to be propagated much more quickly.

Aztekium in habitat tend to grow as flattened discs but the plants were quite different and much better when grown on Myrtillocactus. This stock is used on the Continent for grafting since it is spineless and easy to cut, but it doesn't like low temperatures. At this point Stuart mentioned that it's not often that one gets to look inside a plant, but when an Aztekium is cut, the inside tissue is a wonderful raspberry red when you cut them. Several other species also have red or magenta flesh, and *Mammillaria bocasana* is another example with a colourful inside. The inside of *Pediocactus bradyi* is also coloured red/magenta.

Cristates are also often grown and propagated by grafting. Indeed, without grafting, it would be quite difficult to have access to the range and type of cristates that we see these days. He had brought along a cristate *Echinocereus pectinatus* which had been grafted last year and which was showing signs of nice new red growth.

Opuntia pachypus could be grafted and one could have plants ready for sale within just a few weeks. *Echinopsis kermesina* is a good stock but worthy as a plant on its own thanks to its red-purple flowers.

Stuart then went on to demonstrate the art of grafting. Slicing through a stem, he mentioned that every cactus will have a vascular bundle, so when examine the cut stem, you will see two regions separated by a circle. When grafting, the scion and the stock do not have to be the same diameter, but it is important that some part of both the inner ring and the other ring make contact with each other. As the cut surface dries, the hard outer skin of the cactus will tend to make the cut go concave, so one needs to chamfer off the edges of the stock (and also the scion). The surfaces to be joined need to be nice and smooth surface so he took off a final thin slice with a single cut.

He repeated the process with a cristate *Opuntia* and slid this piece onto the top of the stock to push out any air between the surfaces. Once the scion had been placed, he used a couple of rubber bands (size 18 or 32 – 3 inches in diameter) to hold the two pieces together. It is hard to have a rubber band stay put on a round pot so he placed the round pot inside a square pot which allowed the bands to be put on more easily, This takes a bit of practice but it's easy enough. Once the graft has been made, it should be kept out of the sun and should also not be watered for a while, until the cut surfaces callous over. The cut flesh can be an attraction to pests such as slugs so do watch out!

He performed another graft using *Ferocactus glaucescens* as the stock. This needs more preparation than the traditional columnar material. After slicing off the head, the spine clusters also need to be removed. He mentioned that when he was in Holland, he saw traysful of these plants being exported to a Polish grower. At ELK, he saw plants of the newly discovered *Digitostigma caput-medusae* (renamed as *Astrophytum caput-medusae* by Hunt) grafted onto *Ferocactus*. With stock such as *Ferocactus*, if you don't cut far enough into them, then the growing plant can be left and this can cause problems if it starts growing and pushes up into the scion. On the whole, *Ferocactus* are good for the stock since they don't make things look too bloated.

While completing the graft, he mentioned that he used to be able to graft a plant every couple of minutes. Around 24 plants can be placed in a tray and within a couple of weeks you can start treating them normally and growing them with other things. He also stated that grafted plants can be quite robust - plants of *Euphorbia lactea* grafted in China are sent over to Europe by sea – it's a 8 week journey in the dark and the plants still look OK when they arrive.

When cut, cristates tend to need a little bit more care in lining up the vascular bundles with the stock. Another method of grafting is something called slab grafting which he saw practised by Miles Anderson in the USA. One example where this was done was when the ISI wanted to distribute a rare *Jaminocereus* from the Galapagos. They needed hundreds of plants and cut little pieces from the side of the parent plant. These sections contained 3-4 areoles and they were grafted onto the side of a host. Eventually the grafted piece throws out offsets from the areoles. The vascular bundle does go to each areole.

After describing some more grafts including a hybrid *Ariocarpus kotschubeyanus* x *retusus*, he cut into an Aztekium to show us the magenta colour inside.

After the break Stuart switched to showing us some slides. He mentioned that in July he was due to travel to the USA and would have to give a digital talk, and that he hoped that his daughters would help him learn how to use Microsoft Powerpoint before then!

A view of his collection showed many cristates growing on their own roots. He mentioned that with grafting you can produce so much more material. A *Cintia* was misspelled as "Cynthia". It forms yellow

flowers and is easily split by overwatering. Some of his pictures were taken in the US and we saw grafted plants of *Ariocarpus trigonus* and a cristate *Ariocarpus retusus* which was reverting to normal. We also saw a cristate *Discocactus horstii* with the growing point forming a cephalium. This was growing on a *Stenocereus*. We also saw *Discocactus* growing on its own roots. The plant produces white flowers and it is amazing how a group of this species tends to flower on the same night.

Stuart mentioned that he tends to see Miles Anderson in Tucson every couple of years. Miles used to work at a nursery which catered for the tourist trade where they prepared several thousand grafts each year. He now has his own setup called 'Miles to Go'. We saw several hundred plants of *Pediocactus bradyi* and Stuart remarked how it was strange to see wooden benches in Tucson compared to the shiny aluminium ones at the Dutch growers. In the US, *Myrtillocactus* is used as stock. We also saw a red cristate *Gymnocalycium mihanovichii*.

We also saw *Pachypodium brevicale* grafted onto the faster growing *Pachypodium lameri*. An Aztekium was growing on *Eriocereus jusberti* and we also saw a cristate Aztekium with a crest *Echinocereus papillosus* has nice white/red flowers – he grafted it but it failed to survive. We also saw a crested *Astrophytum asterias* from growers in Thailand, and small heads of monstrose *Notocactus scopa* and *Blossfeldia liliputana*. We also saw two examples of stocks forming offsets and attempting to knock off the scion. We also saw a cristate *Buiningiana* which he had grafted while travelling, and *Pilosocereus tillianus* from Venezuela. We also saw an *Ariocarpus* on *Echinopsis* stock and *Polaskia chichipe* which sometimes forms a nice crest.

A grafted all-yellow *Gymnocalycium* had got sun burnt and was being rescued. We also saw a pink-flowered *Pelecypora* on a graft in a 2¾" pot. An *Uebelmannia* with red seed pods was being grown purely for seed. We also saw *Astrophytum myriostigma* cv. 'Lotusland' with its weird tubercles. Stuart mentioned that one plant he has not managed to grow on a graft is *Copiapoa laui*. We saw a shot taken in Holland with benches packed full of red, yellow and white grafted plants of *Gymnocalycium* and *Chamaecereus*, and ended with a drawing done by his children when they must have been a lot younger!

At the end, Stuart spent a few minutes talking about some of the table show plants. He was impressed by *Haworthia maughanii* and mentioned that he once had a plant of this which used to grow a few leaves

and lose just as many each year. Finally he got a good clone which is getting bigger. He also remarked on *Haworthia* cv. 'Sugar Plum' which can achieve good purple colouring.

Vinay Shah

Table Show Results

There were 18 entries in the table show at the May meeting.

	Cacti – Opuntia Group	Succulents – Haworthia & Gasteria Groups
Open	(1) B Beckerleg <i>Opuntia invicta</i>	(1) B Beckerleg <i>Gasteria liliputana</i>
	(2) J Roskilly <i>Opuntia</i> sp.	(2) J Burnay <i>Haworthia limifoila</i>
	(3) J Roskilly <i>Opuntia microdasys</i> v. <i>rufida</i>	(3) -
Intermediate	(1) J Burnay <i>Pterocactus tuberosus</i>	(1) B Beckerleg <i>Haworthia maughanii</i>
	(2) B Beckerleg <i>Tephrocactus molinensis</i>	(2) J Roskilly <i>Haworthia fasciata</i> cv. 'Big Band'
	(3) T Grech <i>Opuntia</i> sp.	(3) J Roskilly <i>Gasteria batesiana</i>

Ivor Biddlecombe

Committee Meeting

A committee meeting was held on the 19th of May.

The cheque for £350 received as payment towards the costs of our participation at the Spring Garden Show in Romsey at Easter bounced – it appears that the organisers have encountered in financial difficulties. Of course the poor weather at the time of the event reduced attendances and didn't help matters. Apart from the financial loss suffered this year, this event has in the past been a significant source of income for us, so we will need to find an alternative event if it is not held again.

We had received an offer from Terry Smale to buy up the stock of BEF pots stored in Margaret's loft. It was decided that branch members would be given a chance to buy these if they wish to do, so a list of the available sizes will be published in the newsletter. (see snippets section)

Thanks were expressed to Mark and Rebecca Jakins for holding an Open Day for branch members.

A new web page highlighting the Zone 11 programme of events has been created at :
<http://www.southampton.bcss.org.uk/Zone11.html>

Preparations for our display at the Sir Hillier Gardens on 21st-22nd June were discussed. We will be part of a craft show which is being held that weekend, so we are hoping to see a higher number of visitors.

Vinay Shah

Snippets

BEF Pots / Sundries

At one of the committee meetings held last year, it was decided that the branch would sell off the stocks of sundries that are currently stored in Margaret's loft since we did not have volunteers to take on the post of Pots & Sundries officer. (If anyone out there does fancy this job, please let one of the committee know!)

One of the main items we have in stock are BEF pots which are very long lasting and quite hard to find these days. If you want to purchase any of the items listed below, please let Margaret Corina know.

2" inch square BEF pot (black)	8p
2¾" square BEF pot (black)	15p
3½" square BEF pot (black)	25p
4" square BEF pot (black)	45p
8½" BEF pan (terracotta)	150p
Label marking pens	120p

Vinay Shah

[Thanks are due to Jim Roskilly for finding the following newspaper article.]

Thieves threaten plant that survived the dinosaurs

The ancient and slow-growing plants are some of the longest-lived and most exotically beautiful in the world. They are also among the rarest. Now, in response to a spate of thefts by traffickers, South Africa's nature conservation officials are turning to modern microchip and DNA technology to safeguard the primitive cycads in their care.

With their tall stems and palm-like leaves, cycads - which evolved about 300 million years ago, even before the dinosaurs - are the oldest seed plants on earth. Of South Africa's 38 species of cycad, three are extinct in the wild and the remainder have been pushed close to the brink by thieves.

Collectors in America and the Far East are prepared to pay up to £6,000 for a large specimen of a rare species, encouraging a flourishing but illegal trade in these plants - either plucked from the wild, or taken from nature reserves and botanical gardens. To help counter this, conservation officials have begun implanting microchip transponders into the trunks of plants in the national collections, in an attempt to identify stolen specimens and trace their owners. They are also planning to spray the plants with a coded DNA "paint", where each batch contains a unique identifying feature.

Last month, tougher regulations were introduced against owning, cultivating or trading in cycads without an official permit. "There is huge snob value to having a rare, long-stemmed cycad in your garden," said Andrew Hankey, a horticulturalist at the Walter Sisulu National Botanical Garden near Johannesburg, where traffickers regularly attempt to steal some of collection's 350 plants. "They grow in hot and arid environments and they grow slowly, so to get a long stem it might have taken 400 or even 800 years. As a result, their price goes through the roof."

Some cycads grow up to 40 feet, while others measure barely more than the size of a football. Thieves will take anything from a tiny seedling to a grown specimen, but the plant's extensive root system makes them difficult to lift intact from the ground. "There is high mortality rate but the thieves consider that a risk worth taking," added Mr Hankey. Dr John Donaldson, chairman of the World Conservation Union's cycad specialist group, said: "In South Africa and Swaziland, 60 per cent of the decline in populations of cycads could be attributed to trade in wild-collected plants." They were vulnerable not only because they were slow growing, he added, but also because they needed to be close to other cycads to pollinate.

The first use of microchips is already proving successful. This month, police and conservation officials in Gauteng province raided a garden in a town near Johannesburg where they discovered 210 cycad plants, valued at more than £30,000. Four were chipped, indicating they had been stolen. Each microchip has a serial code which can be read with a scanner. The DNA paint is being developed to

overcome efforts by some criminals to find and dispose of microchip transponders. Each batch of the paint has a unique code which can be scanned from even a microscopic piece of the plant.

In the most extreme cases, thieves have dug up entire populations of a particular species of cycad. In January, 103 rare cycads valued at more than £600,000 were stolen from the Lilly Cycad Reserve, in the Selati nature reserve in Limpopo.

Dr Donaldson said: "We are on the cusp of extinctions. We have a lot of rare plants that are down to fewer than 100 individuals in the wild."

Stephen Bevan, The Telegraph, March 16 2008

Next Month's Meeting

The next meeting will be held on the 1st of July and will feature Stirling Baker who will be talking to us about "unusual cacti".

The July Table Show will consist of the **Echinopsis** group (cacti) and the **Aloe** group (succulents). Please note that members are allowed to submit more than one entry in any of the classes, and that points will be earned for each placed entry.

The Echinopsis group contains *Echinopsis*, *Lobivia*, *Acanthocalycium*, *Acantholobivia*, *Chamaecereus*, *Helianthocereus*, *Hymenorebutia*, *Leucosteles*, *Mila*, *Neolobivia*, *Pseudoechinopsis*, *Pseudolobivia*, *Pygmaecereus*, *Reicheocactus*, *Setiechinopsis*, *Soehrensia* and *Trichocereus*.

The Aloe group contains *Aloe*, *Bulbine*, *Chamaealoe*, *Guillauminia* and *Lomatophyllum*.

Forthcoming Events

Sat	7 th	Jun	Portsmouth	Portsmouth & District Summer Show, Wickham Community Hall
Fri	20 th	Jun	Isle of Wight	"Bonsai" – Terry Evans
Sat	21 st	Jun	Portsmouth	"South West USA" – Ian Woolnough
Sat	21 st	Jun	Reading	"Parodia" – Peter Down
Sat	21 st	Jun-	Ampfield	Display/Plant Sales @ Sir Harold Hillier Garden, Jermyn Lane,
Sun	22 nd	Jun		Ampfield, Near Romsey.
Tue	1 st	Jul	Southampton	"Unusual Cacti" – Stirling Baker
Fri	11 th	Jul	Southampton	Branch Dinner – The Luzborough House
Fri	18 th	Jul	Isle of Wight	"What I Did Last Winter" – Paul Klaassen
Sat	19 th	Jul	Portsmouth	"Lophophoras" – John Watmough
Mon	21 st	Jul	Southampton	Branch Committee Meeting
Sat	26 th	Jul-	Titchfield	Display/Plant Sales @ Solent Fuchsia Show, Titchfield Comm. Centre
Sun	27 th	Jul		
Tue	29 th	Jul-	New Forest	Display/Plant Sales @ New Forest Show, New Park, Brockenhurst
Thu	31 st	Jul		
Tue	5 th	Aug	Southampton	"South African Miscellany" – Ian Acton

Branch website: <http://www.southampton.bcsc.org.uk>