

British Cactus & Succulent Society

Southampton & District Branch Newsletter

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Editorial

After a long dry spell, we did finally receive some rain in recent weeks and the plants out in the garden are looking quite a bit happier.

In my conservatory a few cacti are producing a sporadic second flush of flowers. Some Aloes are also flowering, and the odd mesemb - such as *Frithia* - is also in flower

Announcements

Apparently the New Forest Show (held last week) went successfully for us, with good sales of plants. We also received a Silver Medal for our display. Alice's open day the prior weekend also went well, with the rain just about holding off.

Over the next three weekends, there are three events to look forward to, Firstly, **Bruce Beckerleg's open day** will be held this coming Sunday. A printed map is available on the front table. Forms for car-sharing to attend the **Oxford Show** and the **Southern Area Mart** (Sevenoaks) are also on the front table - please write your names on these if you would like to attend the events and need a lift - or if you plan on going and can give others a lift. This is your last chance to sign up for these!

Last Month's Meeting

Gymnocalycium in Person

Graham Evans said we were going to take a look *Gymnocalycium* as a genus. The first two-thirds of the talk would be covered using the 70+ live plants which Graham had brought along, and at the end we would see some slides, covering some history and people associated with the genus, along with some

plants in flower. Graham said the plants on the front table represented each of the accepted species, and he had brought all of the species except *G. pflanzii* - his plant was too large to bring along. He had also prepared and brought along a handout listing all the species, using the "New Cactus Lexicon" (David Hunt) and Graham Charles' book "Gymnocalycium in Habitat and Culture" (2009) as his references. He mentioned the latter is one of the best books ever produced on any genus.

Gymnocalycium is split into 5 sub-genera, based on seed structure and these are macrosemineum, gymnocalycium, microsemineum, trichomosemineum, and muscosemineum.

The first group is macrosemineum which means large seeds. It contains a small number of members, recognised by their morphology and most of these tend to have bright green bodies, they have fewer and more open ribs and they are also not particularly spiny. These plants are found in Uruguay, Paraguay, Brazil and Argentina so they actually cover a wider area than the other sub-genera. The first plant he showed was *G. horstii* - ssp. *buenekeri* which some people accept as a species. *G. horstii* has a glossy epidermis, whereas *buenekeri* has a matt epidermis. Give them plenty of shade - too much sun causes them to go purple and they can also scorch. Grown under the staging they grow well and will still flower just as well as in full sun. Similar to it is *G. denudatum* - this is also quite a low growing and flat plant - it has lovely large off-white flowers. The cultivar 'Jan Suba' has bright pink flowers - people aren't sure if it's a legitimate variety or a hybrid with *G. baldianum*. Next were three plants which the Lexicon calls *G. uruguayense* or *G. netrelianum* and which Graham Charles calls *G. hyptiacanthum* with 2 subspecies. The plant he held up matched the description of *G. uruguayense* - it is reasonably heavily spined, dark green in colour and it offsets profusely. What Graham Charles calls *G. hyptiacanthum* is smaller growing, it does offset in time, has more ribs and is less spiny. It's still a very attractive plant. His favourite of the three is *G. netrelianum* - this is a lovely low growing plant with dense yellow spines, it has pale lemon yellow flowers. At the smaller end of the scale - *G. mesopotamicum* is a small growing clumping plant -

it is very floriferous and easy to grow. The one which is rare and almost extinct in habitat is *G. angelae* - it was named 20 years ago by an Italian Massimo Meregalli - this plant was sent to him by Graham Charles a couple of years ago. It is light green in colour and has large (for the size of plant) white flowers.

The second group is the type group and is a subgenus called *Gymnocalycium*. It contains a number of plants that are widely grown and easy to recognise. The type species is *G. gibbosum*. It is also the most southerly growing of all the *Gymnocalycium*s and it hails from southern Argentina, almost into Patagonia. It can therefore handle low temperatures. Varieties *nobile* or *ferox* are more spiny than the type. It is easy to grow and is free flowering. Subspecies *borthii* is squatter and has shorter, thicker spines. *G. paraguayense* is from Paraguay, and all the Paraguayan ones tend to be a little trickier to grow. Paraguay is a land locked country and it doesn't have the same climate as the other countries and it also tends to be more humid. It has a nice light green body colour has big flowers and fairly sharp ribs. *G. fleischerianum* is similar but has less well-defined ribs. *G. bruchii* is one of the few that clumps profusely. It flowers early in the season - late March to April. It was made famous by the bad print in Lamb's book which suggested it had "blue" flowers. *G. strigianum* is a dark bodied plant. If grown in sun, it is very dark - darker than olive green. The flowers are pure white so this is a good contrast when the flowers open. It is slow growing - he had bought this plant 20 years ago and it was still in a 4" pot. Another favourite of his for its body colour is *G. tanningaense* - the coppery green colour to the body gave it an annealed affect. It is easy to grow. Although many *Gymnos* are happy growing under the bench or in half shade, you only get the better spination and body colours if you do grow them in full sun.

Gymnocalycium baldianum has bright blood red flowers. *Gymnocalycium sanguiniflorum* is the same thing. It is very floriferous and easy to grow. Closely related to *G. bruchii* is *G. carolinense* - it remains small, and is prolific with flowers and it flowers early. The nearest relative is *G. calochlorum* - which comes in various spine colours from pale reddish brown through straw to almost white. It is easy to grow and is free flowering.

You don't encounter *G. schroederianum* very often -. He saw a very nice one in a show - it was in a 4¼" pot and was very flat, only half as tall as his plant. It has an upcurved central spine and is very handsome. It has a ssp. *boessi* (or *G. erolesii*), without the central spine. One of the biggest flowers in the

genus is on *G. reductum*, which is an open bodied plant. It forms strong spines if grown in sun. A form called *G. schlatzlianum* has pink flowers and it's a glorious plant if you can find it. *Gymnocalycium leeanum* is now placed under *G. reductum* - but it's less spiny than *reductum*. It has lovely lemon yellow flowers.

G. kroenleinii is named after a former director of the Jardin Exotique in Monaco, Marcel Kroenlein. It is quite a spiny *Gymnocalycium*, with red brown spines on a low growing flat body and has glossy white flowers with a red centre. If you like differences in flower colour, then *Gymnocalycium andreae* is worth seeking out. It is small growing clumping plant and will get into a 4¼ inch pot after 10 years. It has glossy buttercup yellow flowers and should be in every collection. A newish plant, *G. amerhauseri* was described 15-20 years ago. It is a fairly ordinary looking plant with large white flowers. It is in the Lexicon and Graham's book so seems to be a valid species. It looks similar to a *G. bruchii* on steroids. Another fairly recent discovery is *G. berchtii* - a pretty, dark bodied plant. A 10 year plant was in a 2½ inch pot. The flowers are large in relation to the size of the plant. It has a large tap root and is named after Dutch explorer Ludwig Bercht.

The next two species are separated by Graham Charles - *G. capillaense* is pale green bodied and has yellow or straw spines. *G. fischeri* is much darker bodied and tuberculate and has darker spines. According to Graham, the two don't hybridize. In his collection, *G. capillense* grows as well as any other *Gymno*, but *G.* without problems but *G. fisheri* scorches easily and also tends to lose its roots. *G. erianaceum* has oppressed spines against the body or can have more outstanding spines. It has quite a few ribs - and flowers readily. The spines have multicoloured bands and it's an attractive feature, in his opinion. *G. neuhuberi* is a pretty plant and is a recent discovery. It is not difficult to grow but it is heavily spined and the spines are quite sharp. It is unusual with its pinkish purple flowers, which are produced in June. It is slow, taking 15 years to get to a 4 inch pot.

G. kieslingii comes in 2 forms. The true form is olive green in colour and the form *castaneum* is purple greeny bronze in colour. The supination is similar on the two plants and the flowers on the two types are white with red centre. It has been suggested that *Gymnocalycium baldianum* "albiflorum" might actually be a *G. kieslingii* form. Another favourite of his is *Gymnocalycium uebelmannianum* - it is a very small growing plant - had it for a number of years and it was still in 6 cm pot after many years. It's a lovely small growing

plant - with off-white vanilla coloured flowers. *Gymnocalycium robustum* was left to last and it is one of the most controversial taxa in the cactus family - it grows near *G. quehlianum* and it can't be distinguished by appearance in habitat, but it does have different seeds. You don't see it very often in cultivation and he obtained his plant from Haage in Germany. In cultivation it opens up more than in habitat, and it's more open and tuberculate.

The third group is microsemineum - which means small seeds. It contain the 2 giants of the genus. *G. pflanzii* form *marquezii* has apricot flowers - the normal *pflanzii* has whiteish flowers, sometimes with a maroon throat. *G. pflanzii* can get large enough to fill a 12 inch pot. *Pflanzii* has 2 subspecies: *zegarrae* is identical except that the fruit splits and it's a bluish glaucous colour, and *argentinense* which was in flower today and is a smaller growing plant. As the name suggests, it's a native of Argentina. *G. rhodantherum* is an attractive heavily spined plant which had taken 10 years to get into a 4 inch pot. It is fairly slow - the name is due to it having fleshy reddish anther stems. At the Croydon show - there was the most magnificent specimen of *G. monvillei* - this is the usual plant in a 5 inch pot - it is bright green yellow spined plant and it produces masses of yellowish white flowers in the spring. It is sometimes called *G. multiflorum*. Related to it and sunk underneath it in the Lexicon is *Gymnocalycium horridispinum* - the spiniest of all the gymnos and with spines like sharp needles. It has purple flowers which makes it very distinctive. The ssp. *achirasense* has shorter spines and fewer ribs and the flowers are smaller and lighter in colour. *G. pugionacanthum* is quite attractive and quite spiny, the body is olive green in colour. The type has pink flowers - and there is a variety with white flowers as well. The pink one is the one to seek out.

G. saglionis is another giant plant - if you can carry it into a show you're probably not going to win a prize, since it's probably not big enough. It is very handsome and easy to grow. Much more likely to win you a prize is *Gymnocalycium spegazzinii* - it is quite variable in the number of spines and also how the spines are oppressed. It is prone to marking so a well grown plant is something that judges will look for. Sunk under it is *G. cardenasianum* - with much longer less oppressed spines and also less ribs. The form called *armatum* has even longer spines. *G. oenanthemum* has deep red flowers (means wine coloured). Another name for it is *G. carminanthum* - but *oenanthemum* is the older name and takes precedence. *G. ambatoense* is the white flowered form of it but go for the red flowered forms - with the deep red flowers and lovely spines. *G.*

ritterianum is a rarely encountered species but it's a nice low growing symmetrical attractively spined plant with large off white flowers. *G. bayerianum* was popular a few years ago - it's a slow growing and a very heavily armoured spiny plant.

The only thing in this group which is difficult to grow is *G. glaucum* and its subspecies *G. ferrarii*. *G. glaucum* is glaucous and heavily spined - it is tap rooted and very slow growing. It is prone to rot and prone to marking and is one of the few gymnos that is difficult to grow. The ssp. *ferrarii* is light in colour, slightly smaller, and is faster growing and slightly less troublesome. A plant which he's fond of is *G. nigriareolatum* - the name implies black areoles - but as you can see that's not the case with this plant - it has fluffy straw coloured areoles. Well in habitat, it gets infected with a fungal growth which causes the areoles to go black, but this doesn't happen in cultivation. Another plant that gets quite large is *G. mostii* - if forms a quite large plate-shaped plant in time. Subspecies *valnicekianum* has more angular ribs and two central spines whereas this only has radials. It will make a large plant and is very floriferous. *G. albiareolatum* has a tap root which in this case was pushing it out of the pot. It has white areoles and is fairly slow growing.

Hugely variable is *G. castellanosii* - this one has long spines which are quite tangled. Subspecies *ferocious* is thicker spined and it has two distinct central spines which are very sharp. A large plant of it is usually very handsome. *G. fossii* is another quite fast growing heavily spined plant with pinkish-white flowers. Three plants are sunk under *chiquitanum* - these are Paraguayan plants - they can mark up quite easily but can grow well in full sun. It has white flowered or pink flowers, bright green coloured body and straw to maroon spines. *G. chacoense* is a lovely pale green coloured plant with bristly yellow spines and white to pink flowers. And *G. paediophilum* is effectively named twice for the same feature of no hairs/spines on the calyx - it is a more heavily spined and it's more short and cylindrical. It forms buds but they always abort on his plant. The last plant is *G. esperanzae* - the newest *Gymnocalycium* here. It was named in 2011 by 2 Czech botanists Řepka and Kulhánek. It is tap rooted and glaucous. It is not showing up much in cultivation as yet. It flowers well and is worth seeking out.

Continuing after the mid-meeting break, the fourth group is Trichomosemineum - it's a small subgroup containing just 5 species. First was the hugely variable *G. bodenbenderianum*. This is the form sometimes called *G. occultum* which is dark bodied

and low growing, with dark heavy spines. It has large flowers and is slow growing. There are forms with much lighter spines e.g. *paucispinum* with lighter spines, and *triacanthum* with 3 oppressed spines. *G. piltziorum* is very slow growing but heavier less oppressed spines. Also very variable is the *G. ochoterena* group. The plant Graham had brought along matched the type, with 5 radial spines, it is a flat bodied low growing plant, with large white flowers. The form everyone seeks out is *G. vatteri* – it has fewer ribs, is flat growing and the ribs are very pronounced. The best forms have a single downward pointing spine. *G. ragonesei* is a plant you occasionally see on the show bench in 4¼ inch pots - but these have a depressed crown - and he thinks they are wrongly labelled. In practice it's a very small growing plant with a huge tap root and you would never expect to see a genuine one out of a 2½" pot. It is always dome shaped, he's never seen one with a depressed crown. In the winter it shrinks horribly into the pot and you think you've killed it, but it does come back. The remaining plant is the well known *G. quehlianum* – it can be found with a large variety of spine colours - from yellow (*flavinispinum*) white (*albispinum*) to black (*zantleriae*).

The last group is muscosemineum, and Graham called this the awkward squad. Most *Gymnocalycium*s are easy to grow and can take varying amounts of light and don't mind peat or loam compost, most like a decent amount of water and grow well in standard cactus mix (which should be free draining). And most will take temps down to 3 degrees although *gibbosum* can take lower. However, this group needs a lighter hand with watering and slightly warmer winter temps in order not to mark. They are Paraguayan hence the need for extra care. *G. schickendantzii* is a purple bodied plant with variable spination. *G. pungens* is close relative with longer thinner spines. Subspecies *delaetii* is very similar, but it is quite short spined. The biggest difference between them is that *schickendantzii* flowers from just outside the crown and *delaetii* flowers from the shoulder. Two very closely related species are *G. mihanovichii* and *G. stenopleurum*. *G. mihanovichii* has brown-green flowers and *G. stenopleurum* has pink/white flowers. Ordinarily, they are difficult to tell apart, but *G. mihanovichii* tends to remain slightly flatter whereas *G. stenopleurum* will become columnar with age. These both need more warmth in winter to avoid marking. In the past, *G. stenopleurum* used to be called *G. mihanovichii* v. *friedrichii*.

Another pair of plants which are quite similar are *G. anistsii* and *G. damsii* - they might be same thing - they have small flowers in white / pink colours. The

penultimate group is the *G. marsoneri* complex. The type has oppressed spines and these are amongst the most difficult ones to grow. They are prone to shrivel up in the winter if too cold and if you overwater they will lose roots in the summer. He gives them extra warmth and grows them in the same conditions as his Discocacti. It has 2 subspecies - *G. megatae* and *G. matoense*. The last plant was *G. eurypleurum* – it was Graham's favourite from this final group. It is bigger growing and less troublesome than some of the others. It has the most spectacular flowers with a very large number of anthers.

This concluded the introduction to all of the species as recognised by David Hunt and Graham Charles. We moved on to some slides covering the history of the genus and some pictures of the plants in flower. *Gymnocalycium* is an entirely South American genus, and we saw a couple of maps of South America - most plants come from the central area of Northern Argentina, Uruguay, Paraguay and Southern Brazil, with a couple from Bolivia.

The first *Gymnocalycium* was described in 1812 as *Echinocactus gibbosus* by Adrian Haworth. In 1843, a German scientist Pfeiffer created the name *Gymnocalycium* based on the naked flower buds, and at this time, just 3 species were recognised, including the present day *G. denudatum* and *G. gibbosum*, with the latter being the type species. When Britten and Rose published the final volume of "The Cactaceae" in 1922, they recognised 23 species of *Gymnocalycium*. In 1966, Curt Backeberg's Lexicon listed 83 species. In Graham Charles book (2009), he recognises 73 species and subspecies. Following on from the New Cactus Lexicon, David Hunt's revised checklist in 2013 lists 71 species. The Austrians seem to recognise 200 and Graham said he was currently sorting through their lists to try and match up with the other publications. The latest publication "Taxonomy of the Cactaceae" by Joel Lode (2015) lists 78 species and subspecies of *Gymnocalycium* – it was published in Spanish but has been translated into English by Ray Stevenson.

We now took a look at some of the plants. *G. amerhauseri* has pink flowers. *G. andreae* has glorious glossy yellow flowers. *G. anistsii* has pink flowers and a dark body. We saw a couple of examples of *G. baldianum*, with glossy red flowers, including *G. sangiuniflorum* which has a deeper shade to the flowers. *G. berchtii* was lovely small plant in a 2.5 inch pot, and the flower was larger than the plant. *G. bodenbenderianum* was dark bodied, with a white flower containing shades of other colours. *G. bodenbenderianum triacanthum*

has 3 radial spines. *G. denudatum* was quite a small plant with a few ribs and a green body, and white flowers. *G. euryleurum* has a very large number of anthers and had recurved petals - it needs full sun for that effect, it won't do that if grown under the staging. *G. horridispinum* was very heavily spined, with a large flower with lovely purple/mauve colours. *G. horstii* ssp. *beunekeri* has off white to yellow to pale pink flowers. There are also varieties with deep pink flowers but those may be cultivars.

The flowers of *G. mihanovichii* have a long tubular shape and they are brown-green in colour. The closely related *G. stenopleurum* has pink flowers which are a more conventional shape and it is the more attractive of the two. He has one strange plant of it that every once in a while flowers from the base of the plant, and a side view showed flowers emerging almost at soil level. John Pilbeam offered a possible explanation for this - the plant may be trying to offset but it changes its mind and produces a flower bud. Ivor mentioned he has a Gymno where the offsets seem to burst through the plant's epidermis. *G. monvillei* produces masses of delicate off-white to pink flowers. *G. neuhuberi* has smaller flowers than *G. horridispinum* but they are a nice pink colour. *G. nigriareolatum* in cultivation has lovely fluffy white areoles. *G. vatteri* has a "blousy" white flower which is very attractive. *G. oenantheum* v. *ambatoense* has white flowers - the type has wine coloured flowers. *G. pflanzii* has white flowers with red throats. *G. reductum schlatzianum* / *leanum* have attractive pale yellow flowers. *G. rhodantherum* has distinctive pink anther stems. *G. fischeri* has a white flower and a large number of anthers. *G. quehlianum* (along with *G. baldianum*) is one of the more popular in the genus - and it also happens to be one of the more floriferous ones. *G. uruguayense* / *G. netrelianum* are heavily spined and have an attractive yellow flower.

Vinay Shah

Table Show Results

There were 12 entries in the July table show, and 7 entries for "Plants in Flower".

	Cacti – Gymnocalycium	Succulents – Stapelia
Open	(1) I Biddlecombe <i>G. saglionis</i>	(1) B Beckerleg <i>Huernia primulina</i>
	(2) I Biddlecombe <i>G. saglionis</i>	(2) T Smith <i>Stapelia hirsuta</i>
	(3) B Beckerleg <i>Gymnocalycium</i> sp.	(3) M Stevenson <i>Huernia</i> sp.
Intermediate	(1) B Beckerleg <i>G. occultum</i>	(1) B Beckerleg <i>Trichocaulon flavum</i>
	(2) I Biddlecombe <i>G. baldianum</i> v. <i>albiflora</i>	(2) -
	(3) T Smith <i>G. ambatoense</i>	(3) -

Cacti/Succulent in Flower
(1) C Weston <i>Aeonium arboreum</i>
(2) T Smith <i>Graptopetalum bellum</i>
(3) M Fox-Rousell <i>Melocactus</i> sp.

Ivor Biddlecombe

Next Month's Meeting

Our next meeting will be held on September 5th and it will be a talk by David Traish from North Surrey branch, on "The Beauty of our Plants". David is affiliated to the Royal Photographic Society and so I expect this talk will discuss how to capture some good images of the plants we grow.

The September Table Show will consist of **Echinopsis Group** (cacti) and **Mesembs (excluding Lithops) Group** (succulents), along with "plant in flower". Please note that members can submit more than one entry in any of the classes, and that points will be earned for each placed entry.

The table show classes use the classifications from the *Guide to Shows 10th Edition* (contact me if you don't have a copy of this).

The *Echinopsis* group includes *Acanthocalycium*, *Chamaecereus*, *Denmoza*, *Echinopsis*, *Helianthocereus*, *Hymenorebutia*, *Leucosteles*, *Lobivia*, *Pseudolobivia*, *Pygmaecereus*, *Soehrensia* and *Trichocereus*.

Mesembryanthemum is a large grouping covers dozens of genera from *Argyroderma* Subgroup, *Cheiridopsis* Subgroup, *Conophytum* Subgroup, *Faucaria* Subgroup, *Nananthus* Subgroup and *Othonna* Group. Note that that the *Lithops* subgroup is excluded in September since it will features in October - hence *Dinteranthus*, *Lapidaria* and *Lithops* are excluded.

Forthcoming Events

Sun	6 th	Aug	Southampton	Open Day @ Bruce Beckerleg 2pm-5pm (see leaflet)
Sat	12 th	Aug	Isle of Wight	Open Evening at Robin & Joan Goodredge (Members only)
Sat	12 th	Aug	Southampton	Branch visit to Oxford Branch Show - Old Mill Hall, Grove, Wantage
Sat	19 th	Aug	Portsmouth	No meeting
Sat	19 th	Aug	Southampton	Branch visit to Southern Area Cactus & Succulent Mart, Sevenoaks
Tue	5 th	Sep	Southampton	The Beauty of our Plants (David Traish)
Sat	9 th	Sep	Isle of Wight	Garden Snowdrops (Helen Mount)
Sat	9 th	Sep	Southampton	Display / Plant Sales @ Romsey Show
Sat	16 rd	Sep	Portsmouth	South West USA 2016 (Ian Woolnough)
Sat	30 th	Sep	Portsmouth	Portsmouth Autumn Show, Christ Church Hall, Widley, PO7 5AU
Tue	3 rd	Oct	Southampton	Cacti of the Big Bend, Texas (Hazel Taylor)
Fri	6 th	Oct	Southampton	Annual Branch Dinner (venue & details to be confirmed)
Sat	14 th	Oct	Isle of Wight	Southern Namibia (Rodney Sims)
Sat	21 st	Oct	Portsmouth	Asclepiadaceae (Tom Radford)

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

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