



Chairman's View - Robin Arnott

For some of us at a certain age, life is governed by a cycle of jags - vaccinations, boosters, flu... in some respects just like cacti in the greenhouse. They have a propensity to jag as well, but not with the same beneficial effect! We had hoped to have restarted our branch meetings by now but... so, since we will not be together in person let me wish you all a Merry Christmas, with a prayer that next year will be a return to something like normality.

My greenhouse has shown mixed results over the summer. Unlike last year when it was a blaze of colour during the summer, this year has been a bit more patchy but still with some lovely flowers appearing.



My *Echinocereus grandis* flowered (above), beautiful white flowers with a light pink stripe in the middle of the petals as did *Gymnocalycium baldianum* (below).



My *Astrophytums* are always regular flowerers and they did not disappoint. I did have a number of failures and lost a few plants that all seemed to have rotted at the base – not sure why, so if you have any answers, please let me know.



Astrophytum capricorne

Autumn is a favourite time for me in the greenhouse as the *Ariocarpus*, *Conophytums* and *Lithops* come into flower. *Ariocarpus* always remind me of prehistoric plants, plants that appear to have been there since the beginning of time. I bought my first *Ariocarpus* (*fissuratus*) nine years ago from Croston Cactus (now sadly, no longer). At that time it measured about 1.5cm in diameter; now it is about 2cm – talk about slow-growing? This year, two of my *A. kotschubeyanus* flowered, as did *A. confusus* and *A. furfuraceous*. Gritty soil and minimum water seem to do the trick.



Ariocarpus agavoides

The Conos have given some brilliant flowers; generally small plants that either have brilliant flowers like *C. tantillum* v. *ernianum* or rather insignificant ones like *C. minutum* 'scitullum'. I have found that they require a gritty, open compost with careful watering. I usually start watering early/mid-July about every two weeks; in October I reduce that to about every three weeks and in December to once a month. Watering stops around mid-March, with no water at all from then until mid-July. Bright light is a requirement during the growing period and shading during the summer, to prevent scorching, may be required. Re-potting is best done during the growing season.



Conophytum spectabile

Lithops are another member of the mesembryanthemum group that are very rewarding plants. My regime for them is gritty, open compost (in fact I tend to use the same compost mix for all my plants) with watering starting after the new 'leaves' have come through and the old ones completely dried up – usually sometime around mid-May to mid-June. Starting to water before that means the old leaves never fully dry up and you end up with multiple leaves from different growth years, which distorts the plant. Depending on the weather, I water about every two-three weeks until the end of September and then nothing until the following year. The only exception is *L. optica* 'Rubra' which can take water until December, as it is a late flowerer.

For those interested in Lithops there are two books which have been recently published. Desmond Cole's revised book on Lithops is, I believe, very good but difficult to get hold of – last time I came across it, it was selling (used copy) for £200 on eBay! Harald Janta who wrote "Wild Lithops" was also a contributor to one of the BCSS weekly (now

fortnightly) Zoom meetings and the other "Lithops in habitat and cultivation" by Roy Earle was only published a few months ago. Neither are at the cheaper end of the market; both are different and both very good. Persuade someone you need a Christmas present?

And on the mesembryanthemum front, I have just taken delivery of twenty Cheiridopsis seedlings – not having grown these before this will be another challenge to look forward to over the winter.

Crassula falcata

Known by most as *C. falcata* it is now allocated as a variety of *C. perfoliata*. Introduced in the early 1700s and appropriately with the descriptive common name of the Propeller or Airplane Plant it has to be one of the most distinctive of the Crassulas. Described by Vera Higgins in her book 'Crassulas in Cultivation' (Blandford Press 1964) as the most handsome of all the Crassulas, it is an attractive plant in its own right with recurved, sickle-shaped, vertically stacked overlapping grey-green leaves, it really comes in to its own when it produces masses of red flowers which can last for ages.



It is native to South Africa from the Cape of Good Hope (Eastern Cape Province).

The plants are relatively easy to grow with a normal succulent compost although being a Crassula they do need some water in our UK winter, a bit all year round is a good approximation.

Christmas Plant Puzzle

S	C	H	L	U	M	B	E	R	G	E	R	A	C	H	R
R	E	B	U	T	I	A	S	A	O	P	A	I	P	O	C
T	U	R	B	E	L	O	P	H	O	P	H	O	R	A	O
M	E	L	O	C	A	C	T	U	S	U	L	C	C	O	R
O	P	O	R	H	O	O	D	I	L	I	T	H	O	P	S
M	A	M	M	I	L	L	A	R	I	A	S	U	T	A	A
U	R	U	A	N	K	A	L	A	N	I	H	E	Y	C	S
T	O	I	T	O	R	O	Y	A	T	T	A	R	L	H	T
Y	D	N	U	P	S	E	L	E	N	N	W	N	E	Y	R
H	I	E	C	S	L	U	C	O	R	U	O	I	D	C	O
P	A	D	A	I	S	L	E	U	C	P	R	A	O	E	P
O	R	A	N	S	U	T	C	A	C	O	T	O	N	R	H
N	E	O	A	I	V	I	B	O	L	A	H	O	N	E	Y
O	S	R	L	S	U	P	R	A	C	O	I	R	A	U	T
C	C	A	O	T	S	O	P	S	E	V	A	G	S	S	U
E	F	F	E	R	O	C	A	C	T	U	S	E	D	U	M

There are 28 cacti and succulents in the grid; answers run horizontally, vertically and diagonally in both directions. Can you spot them? Answers on Page 7.

Photographing the Dark Side

I've always been in awe of the wonderful pictures contained within the various BCSS journals and publications. I have particularly been interested in the photos taken with dark backgrounds used to enhance light coloured spines or wool on some plants and it certainly makes a big difference to the image when a contrasting background is used.



Mammillaria hahniana

Brian McDonough - chairman of the Glasgow BCSS branch, gave an excellent presentation many years ago at one of our Fife branch meetings on how to photograph our plants. I still have a few notes from that meeting, however when Brian was looking for ideas for the recent monthly Glasgow zoom meetings, I asked if he might consider giving his photography presentation again, although this time concentrating on using dark backgrounds. Brian duly came up trumps and once again gave an excellent presentation and overview on how to take and enhance the photos of our wonderful cacti and succulents using different materials as a background.

It has to be noted that you don't need expensive cameras and equipment, you just need to know how to use the camera you have, and what items to use as backgrounds.

The camera I had been using until recently was a small Panasonic compact camera. Fairly basic however

still good enough if you know how to use it properly.



Oreocereus trollii

Text and photos by Bryan J Morris

A small tripod is essential to eliminate camera shake and also operator shake as in my case! A non-reflective background is also recommended to avoid unwanted reflections or to



prevent the actual texture or pattern of the material you are using showing in the background of the picture. Dark coloured velvet or velour is an option although I use an old interior car floor mat which is the only piece of material I have to hand which is big enough and has a texture able to minimise reflection. I don't have any specialised lighting, so I tend to use my photo set up in my small greenhouse which then maximises any available light. I also use an old piece of polystyrene board to provide extra shading or to direct light on to one side or the other of the plant when the photo is being taken. (See fig1)



Fig1 New camera and greenhouse set-up

Most small digital cameras allow you to alter the shutter speed and aperture if you know where to look and it's the aperture settings which are key to taking some splendid photographs where depth of field is important if you want to make sure that all of the plant is in focus or in some cases where you only want part of the plant in focus and prevent the background material showing through.

I have really enjoyed taking photos of my plants and seeing some of the pictures used in zoom lectures and presentations. So to take things further I have now upgraded to a new DSLR camera where I can now buy specialised macro lenses for close up shots and also being able to have a greater degree of control over the pictures I'm taking. The best part of using a digital camera is you can experiment and take as many photos as you want, as no film or development costs are involved.

My project for next year is to take some photos of my cacti and succulent collection worthy of publication in the BCSS journal.

Bryan J Morris (Fife BCSS)



Rebutia heliosa v cajasensis



Mammillaria Plumosa



Cereus Sp



Pleiospilos nelii

Cacti I Have Killed - Bill Christie

If the title was to be fully representative, I would need a book. When you are new to our hobby, it is easy to try too hard and over-water and over-fertilise to get results quickly to compete with more experienced growers. That is the best way to kill them. It really does pay to be patient and not try to rush growth if you want to grow healthy plants with the best spines. Once my greenhouse was full, space constraints meant that I was never tempted to over-pot so I killed very few each year. There remained three genera that gave me particular problems over the years, and it is these I want to write about here.



Ariocarpus_bravoanus_hintonii

The first genus on my list is Ariocarpus. The literature on the subject usually warns of the dangers of over watering and often recommends growing in a mineral based soil with no organic matter and very little nutrient. In my opinion, such precautions are not necessary, although I do use a grittier compost than I would use for most of my plants. The books usually say spray with water but avoid soaking the plants. Again, I have found this to be too cautious, and I water judiciously but do not stint. With this regime, I have grown from seed to flowering size in 10 years or so. It is only then that I kill them. Most tend to flower in early October – I have watched this many times with glee, then the following Spring noted that the plant had turned to mush. I believe that the problem lies with the late flowering in that the flower remains do not dry out properly so bacterial or fungal rot can set in over winter. Death comes not the roots but from the top, where some species have a dense wool covering that holds moisture. For two years, I brought my Ariocarpi (6 plants) indoors immediately after flowering so they dried out quickly then remained on top of a bookshelf until the Spring; they all survived. Then, I installed a high shelf in the greenhouse to give them maximum sunlight, and they flowering three weeks earlier than in the past and survived outdoors. Incidentally, if you want to try one Ariocarpus, I would recommend A. bravoanus v. hintonii, which flowers a month or so earlier than the rest (early September).

Fraileas are next on my hit list. I have grown any number over the years, and they tend to sit on the bench looking sorry for themselves until they die or I give up on them.

They throw out the occasional flower, which often does not open. I suspect that others have had the same problem, as I rarely see them offered these days. Over the years, I tried



Frailea_moseriana

every combination of compost, light, shade and watering without success. However, I had never treated them as bog plants. An article in the journal of a few years ago recommended very heavy watering, and I visited an enthusiast in Manchester who had many fine plants of this species with their feet in water in late October. Admittedly they were in a warm mini-conservatory not a cold greenhouse, so I did not have the courage to let them get too wet over winter, but a few years of much heavier watering of my two plants in summer certainly helped them to thrive and flower freely.



Austrocactus_species_DV2

There are not many plants in the genus Austrocactus, and they can be hard to come by. In my hands, they barely survived if they lasted at all and never grew well. If they were on the open bench, they scorched badly and lost their roots easily so had to be re-started from cuttings. If grown in light shade, they etiolated. Flowering was a rare occurrence. One experienced collector suggested that I grow them outdoors in the summer, as they come from the relatively cold regions of Patagonia, but that did not seem to help. Another article in an online Cactus magazine that suggested that the secret was to give them plenty of water in winter. Again, it didn't kill them, but they were no better, so I don't have the secret.

Tri-lobed *Lithops hallii* v. *hallii* C174 – Bryan J Morris (Fife BCSS)

Whilst preparing some plants to photograph for a recent Zoom presentation I noticed an oddity within a pot of my *Lithops hallii* seedlings grown at the start of this year – a tri-lobed *Lithop*! (Fig 1)

I wasn't too sure if this was a true tri-lobed plant or actually two plants fused at the base, however closer inspection of the pot proved that this was indeed a three leaved plant.



Austrocactus_species_DV2

On researching this phenomenon, Steven Hammers book – *Lithops Treasures of the veld 2nd edition*, states that it is indeed possible for this mutation to occur, although it is quite rare!

Several members on the BCSS forum, have also had this anomaly occur and have included a few pictures on the website as evidence. Some literature even has rare examples of multiple six leaved *Lithops*. Most of the information states that this is often temporary and it is apparently the case, that once next year's growth starts, the leaves will be reabsorbed and then revert back to the usual two leaf form.

None of the information researched explains exactly why this mutation occurs, although I suspect that as in all forms of plant life, certain anomalies and differences can happen due to DNA issues, cell damage or even in growth due to sudden changes in temperature, feeding or watering.

One theory is that inbreeding and regeneration from a single source of seed (such as C174) can eventually cause irregularities and changes to the plants structure. Incidentally the number after the plant name refers to the collectors number and in this case C174 refers to collector Desmond T Cole, and the plant/seed was originally collected 25 km South East of Prieska, South Africa.

As for my own plant - I will wait and see what happens next year and if a further tri-lobed *Lithops hallii* v. *hallii* plant emerges. Time will tell!

Answers to Christmas Plant Puzzle

Adenium	Crassula	Lobivia	Opuntia
Aloe	Echinopsis	Lophophora	Oroya
Ariocarpus	Euphorbia	Mammillaria	Pachycereus
Astrophytum	Ferocactus	Matucana	Parodia
Conophytum	Haworthia	Melocactus	Rebutia
Copiapoa	Huernia	Mila	Schlumbergera
Cotyledon	Lithops	Notocactus	Sedum

Another habitat shot from Mary Sellar's collection showing the spectacular world of *Trichocereus pasacana*. Pasacanas are cut down, dried, then sawn into planks and used for roof linings, boxes etc.



We hope that you have enjoyed this newsletter. With the current COVID situation, and the Cupar YMCA not yet taking bookings, it is still not clear when we might be able to resume our normal meetings and activities. Although last year we circulated the accounts and some other information by email in lieu of the Branch AGM, there has been no activity and no changes since then and the proposal is to delay any AGM until things improve. Any decision about a Show in May will be left until nearer the time. If the situation changes then we will let you know. Please let us know if there are any objections to these proposals.

In the meantime we have the twice-monthly Tuesday Zoom talks and remember that we have the Scottish Zoom meeting hosted by Glasgow Branch on the first Thursday of the month to keep in

Have a Merry Christmas and a Good New Year