British Cactus & Succulent Society

Southampton & District Branch Newsletter

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Editorial 1
Last Month's Meeting 1
Members' Evening - Short talks by our own members 1
Richard White - Botanic Gardens in Western Cape 1
Tom Radford - A trip to Tenerife 2
Cathryn Quick - Convergent Evolution 3
David Neville – Lanzarote 4
Ben Turner - Jardin Majorelle 5
Next Month's Meeting 6
Forthcoming Events 6

Editorial

We are now into February and the weather has remained mild apart from a couple of cold spells. There are many more signs of life in the gardens around here and some daffodils in sunny spots may even flower soon. Easter this year will relatively late – it will be in the second week of April.

Last Month's Meeting

Members' Evening - Short talks by our own members

January is the month when we invite our own members to speak at the branch meeting and we had 5 talks lined up for today. On the side table, Mark Jakins had brought along a rather impressive and realistic miniature greenhouse, made from Meccano. "Good ventilation" was one of the comments since no glass had been installed but perhaps due to the small scale, it would be suitable for raising seedlings?

At the moment, the branch doesn't own a digital projector (we have been using David Neville's personal unit most of the time) and of course some speakers bring their own kit. However, as we have seen over the past few years, the majority of speakers now use digital projectors. Ben Turner had a spare unit (a Sony) and we would using it today to evaluate it and see whether it was considered suitable for purchase by the branch. New projectors vary tremendously in price - there are many "no-name" units starting at £100 on sites like Amazon but most of these overstate their brightness or have excessive fan noise or poor focussing or uneven brightness. David's Epson projector is a few years old now, but it would cost around £550 if bought as a new unit. Most of the well known makes start at this sort of price. Professional units designed for business use can cost quite a bit more, depending on which features you need. Compared to a few years ago I had expected the price of projectors to come down quite a bit over the years (rather like with LCD TVs) but the sales of projectors is relatively modest and there seems to be no interest in slashing prices. What seems to be happening is that the manufacturers incorporate new features in the unit but don't drop the price. There have been improvements in lamp lifetime as well.

One other point to mention is that the display interface on a laptop needs to be compatible with the projector, and laptops have changed from the VGA D-sub connector to HDMI over the past decade (or more), and now almost every laptop will feature a HDMI connector instead of VGA. Therefore it's important to have HDMI connectivity. There is a new interface which is gaining popularity (USB-C DisplayPort Alt Mode) and this means that the USB-C connector can be used for multiple purposes (as a USB interface, for power delivery and for displaying digital data). This is the summary I read on a website: At the end of the day, HDMI is still the established video signal port on TVs, monitors, gaming consoles, projectors and others. Is USB-C the future? Yes. But is it going to replace HDMI anytime soon? No.

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Richard White - Botanic Gardens in Western Cape

Richard said he had taken some pictures while on holiday – and this was his first trip to South Africa (in 2006) – at the time he didn't know as much as he does now. The Western Cape is the South-western region of South Africa and we saw a map showing the areas he would be visiting.

Kirstenbosch Botanical Garden in Cape Town is famous, but there were two other botanical gardens within reach - the Karoo Desert National Botanical Garden in the outskirts of Worcester, and the Harold

Porter national botanical garden at Betty's Bay on the coast which comprises 10 hectares of cultivated fynbos garden and 190 hectares of natural fynbos shrubland vegetation. It doesn't have that many succulents, but Richard said he did find some other plants, for example Aloes on the roadside on the R319 - and he also visited the southern-most point of South Africa which is Cape Agulhas. We started in Cape Town - and we saw Table Mountain and the white cloud on top – "the table cloth". Richard said he was there for an international conference - a follow on from the Rio biodiversity conferences - an organisation in Copenhagen was holding annual meetings. We saw their party on a visit to a Stellenbosch winery, enjoying some of the local produce. To remind us of some of the realities, we saw a view of a shanty town on the outskirts of Cape Town, so not everyone lives in comfort - although they did at least appear to have electricity. He visited Kirstenbosch first and we saw *Aloe arborescens* with lovely red flowers.

At Kirstenbosch, you see a mixture of native plants and those that have been brought here from other parts of the country. *Acraea horta* was a butterfly with transparent wings. *Carpobrotus edulis* had flowers in shades of orange, pink and yellow *Aptenia cordifolia* is thought of as one of the more primitive mesembs - it has fleshy leaves. We also saw a glottiphyllum. Not everything is labelled. A pale yellow flower was probably a Delosperma - it had more compact leaves compared to the Aptenia. We saw *Malephora crocea* with orange/yellow flowers.

There's a very large glass house here, with effective ventilation in the roof - South Africa is closer to the equator than we are. We saw some Aloes, and Baobabs - Richard said he had tried to remove any bulbs from this talk. There was some attempt to represent the plants from the different regions of South Africa and we saw plants from the Knersvlakte such as Argyroderma and Oophytum, and another area represented the Little Karoo. We saw *Euphorbia virosa* and the sign for *Euphorbia pentagona* featured some writing in Afrikaans, perhaps this was a local name. We saw *Kalanchoe sexangularis* with toothed leaves. There was an example of a name change - with *Crassula falcata* now called *Crassula perfoliata* var. *minor* - this is strange since it's a very large plant. *Crassula rubricaulis* was 20cm high. To finish off the Kirtstenbosch trip, we saw a Southern double-collared Sunbird - they have to land on the plants to feed from the flower. Some bulbs have evolved special stems to allow the sun birds to perch on them.

The second botanical garden was the Karoo garden. It took him ages to work out what the first plant was – google image search thought it might be a Pachypodium but it was actually a young *Aloe dichotoma*, before it had started branching. We saw some older plants of this species which gave a more accurate representation of what the mature plants really look like. We saw an Euphorbia plant and the next one was labelled - it had bluish stems and it was *Euphorbia caerulescens* which makes huge stands of stems. A plant with lots of succulent stems looked like *Senecio anteuphorbium* but that only comes from North Africa - so it was more likely to be *Seencio longiflorus*. The former is supposed to be a cure for euphorbia poisoning. There was a nice *Crassula rupestris* with red edges to the leaves. A dead flower head might have been some sort of kalanchoe?

"Check your car" referred to a sign advising road users to check for tortoises under their car before setting off. Richard also showed a picture of an actual tortoise to show the intricate patterning on their shell. At a roadside, he saw *Aloe ferox* in flower and a branching plant of *Aloe arborescens* as well. At Cape Agulhas - there was *Aloe maculata* with some snail shells amongst the leaves - these plants were growing in a garden area near the lighthouse. This was labelled as a place where the Atlantic Ocean and Indian Ocean meet, so you could stand with one foot in each ocean. At the Harold Porter botanic gardens there were hardly any succulents there - a sign labelled the area as "Dune fynbos" and there were more fynbos and xerophythc plants and proteas etc. A large example of *Aloe plicatilis* was about 8 feet tall and 6 feet wide. Despite the name, *Aloe succotrina* does come from South Africa - it was not in flower, the flowers in the picture were from another plant. It was time to head back to the back to airport and the talk ended here.

Tom Radford - A trip to Tenerife

Tom said he had been to Tenerife in the Canaries a few times and the last time he was there, he saw a few interesting things. He showed a view of the centre of Tenerife which is a volcanic island. You can go up some of the hills in a cable car but it's too windy in February. The scenery is stunning. There are birds there but not the ones David would be interested in(!) We saw Berthelot's Pipit which is endemic to the Canaries and one of the rarest birds you are likely to see. The climate is good for walking and there are really nice footpaths and interesting vegetation. We saw some Aloes and Euphorbias. *Euphorbia canariensis* was large, about 30 feet across. With Aeoniums, many are endemic

to the Canaries and we saw *Aeonium canariensis*. Nearby was a peruvian daffodil which had somehow found it's way to the island. The next plant was an Opuntia covered in mealy bugs – cochineal insects are grown on these plants and then crushed to produce the red cochineal dye which is used as a food colouring - vegans and vegetarians should avoid this material.

Next was Palmetum - located in Santa Cruz, it is 12-hectare botanical garden that specialises in palm trees. The site was derelict in 1990 but the local municipality undertook to create a palmetarium and it was supported by the EU and also got funding from Santa Cruz and the Spanish government. The project was sponsored by Manuel Caballero and was supported by landscaper/artist César Manrique. The planting of a Jamaican palm at the opening ceremony in 2014 marked the opening. This was around 2 metres high initially. An overhead shot of the area taken in 2016 showed that things had settled in quite well. At that point they started to build a swimming pool and also an opera house. Next was *Scadoxus puniceus* which was a common South African bulb, and flowering in February. With *Ceropegia dichotoma*, large clumps were growing out in the wild. It was growing profusely here but Tom said he finds them difficult to grow in his greenhouse. Another aeonium was also an endemic - *Aeonium arboreum* ssp *holochrysum*. Crinum x *C. augustum* was a hybrid, and *Crinum asiaticum* hails from Asia and was two metres high - a close up view of the flower showed it was quite spectacular. *Didierea trollii* is a plant from the spiny forests of Madagascar. This one had vertical stems but Tom had also seem it growing along the ground - David Neville explained that when they become mature then they can grow the vertical stems. An *Aloe vaombe* (from Madagascar) had been included for Ben Turner - it is on the endangered list. *Typhonodorum lindleyanum* hails from Tanzania and Madagascar and it is an arum lily relative. It produces poisonous fruit and likes growing in water. *Ravenala madagascariensis* is also called the Traveller's Palm and it is related to strelitzia. We could see that the plant had two different forms of leaves on it and it grows quite tall, to a height of 10 metres to 20 metres - each leaf can hold 2 litres of water. *Plumeria pudica* is part of the Apocynaceae family. By 2003, they had put up the Auditorio de Tenerife, which was an answer to the Sydney Opera house and designed by architect Santiago Calatrava.

Tom said he spent half a day walking around the Palmetum - there are quite a lot of other smaller plants there and they also have planted some larger plants to fill the space, and things do grow quite grow fast due to the climate. A cactus *Dendrocereus undulosus* comes from the Carribean island of Hispaniola – there were a couple of specimens here - and it needs high temperatures and would be impossible here. It was about 2 metres tall. It didn't look particularly attractive due to the fact that it grows stems at random angles. The palm on the left is the one they had planted in 2014 - it had made good progress. Palms come from all over the world and they come in a variety of sizes, including some small ones.

Azadirachta indica is a palm from India and it is also known as the "Neem" plant - it is used as an insecticide and for various medical purposes. This was something Alice had tried using for a couple of years. We saw *Sansevieria stuckyi* and *Sansevieria ehrenbergii* – he had seen the former in Warren Withers's collection and it is related to asparagus apparently. Next was *Ficus religiosa* - the plant that the Buddha is reputed to have sat under when he gained enlightenment – it is well regarded by Buddhists in India, Tibet and Korea. Tom's wife was in the picture for scale. Some of the palms are impressive and we saw *Bismarckia nobilis*. He photographed a Hoopoe bird and he mentioned that he had once seen the same species in Romsey as well! A large bromeliad from Brazil was *Wittrockia gigantea leopardium*. Next was *Vanilla planifolia* - there are actually three types of vanilla (three different species) - but this is the one used for flavouring vanilla ice cream. *Encephalartos laurentianus* is one of the prehistoric plants belonging to the cycad family. Wes saw another bromeliad *Vriesea imperialis* and Ian Acton said this was the largest of all the bromeliads. We ended with *Opuntia galapageia*, which is from the Galapagos Islands.

Cathryn Quick - Convergent Evolution

Cathryn said she had no real experience and had only been in the hobby for about a year or two, but she wanted to talk about something that had grabbed her attention. So to start with - what exactly is convergent evolution? It occurs many times in nature - bats have wings and owls have wings but the two are not related. With eyes, both octopus and squid have complex eyes and can see better than us. Vertebrates have a similar structure - crocodiles and hippos have the same shaped face despite being quite different animals. Analogous traits refers to the fact that there are similar characteristics found in different groups of organisms that did NOT derive from a common ancestor - so these are characteristics which have evolved independently due to the same habitat and environment, and nature finding similar solutions for different species. Cacti and succulents are examples of this as well, despite

growing in different continents. With stem succulents, leaf succulents, and bulb succulents - water conservation has been the limiting factor. Another example is flowers in different continents being pollinated by different birds. Bromeliads, aloes and agaves all look rather similar - they have leaves arranged in rosettes because this form of growth provides certain advantages. With the next group we were asked to guess the analogous trait - and it was "windows" in the leaves - the plants were lithops, haworthia, and peperomia. The first two live almost underground but need a way of gathering light. Lithops grow out in the open, haworthias try and find shelter under other plants and peperomia also seek some shade probably. She mentioned that an Agave of hers sat in the corner and having been neglected with no water for a while, it had pulled itself down into soil due to lack of water - a haworthia will do the same - this is due to their contractile roots.

The next picture showed how cacti and succulents had come up with similar solutions - the cactus was a ceroid and the succulent was *Euphorbia horrida*? Ribs allow the plant body to expand and contract as it grows and goes through a dry spell. The spines protect the plants from being attacked by animals, also they also act as a point to collect water/condensation which can drip on to the base of the plant. The globular structure of a cactus (Frailea?) and *Euphorbia obesa* also shows similarities - the surface area to volume is the minimum for a sphere. Apparently, that's why Eskimos are plump people, said Adrian! Cathryn had also brought in some of the plants featured in her photos but since we were restricted for time, we didn't discuss those.

David Neville – Lanzarote

David said that he would show some pictures that he had taken in Lanzarote, which he had visited for the first time last year - he mentioned that people tended to go to Tenerife or Gran Canaria - since there's less to see in the other islands and Fuerteventura is rather barren if you want to see plants. The first image was a really attractive painting on a wall outside a cafe called "Suculenta" - but it was January and the cafe was closed at this time of the year. The image featured an echeveria and a strelitzia and a ceroid and an opuntia. In the hotel he was staying at, there were some big plants of *Euphorbia ingens/trigona* some 15 feet tall - and there were egrets perching on top of these plants.

This was seen walking along the street along a prom – a hotel had lots of cacti – it was *Cleistocactus strausii* in full flower, doing really well. This "metalocactus" was outside the cactus gardens – it was a big sculpture 15-20 foot tall. The Jardín de Cactus was designed by César Manrique and built in an old quarry which had been empty for some time. He had gone to the garden on a coach with around 40 people and there were a few other people there, but it wasn't very busy. You can see some of the larger growing plants in these gardens – including various ceroids. The walls are terraces and there are some plants growing there as well. David said the garden mentioned 2500 species which seemed somewhat optimistic (another online article mentions 1100) but there was still quite a lot to see. The longest the plants will have been here is around 30 years - the garden was established in 1991. *Euphorbia resinifera* is from Morocco and it was making a carpet over the wall and the steps.

We saw *Pachypodium lameri* and some Alluadias from the spiny forests of Madagascar. One of the unusual things about these is that the leaves are deciduous but they grow back quicky when the plants get moisture. They tend to produce the leaves along the top through to the bottom of the stems. *Agave macroacantha* comes from from Oaxaca and Pueblo in Southern Mexico - it is a temperature sensitive plant but it would be fine here, and this was a nice form. *Agave victoria reginae* comes from northern Mexico and it is a much tougher plant and frost hardy. Monadenium are now members of the Euphorbia family - they have distinct hooded flowers - M. magnificum has thin stems – but these are thicker stems but he couldn't remember the species name - it comes from West Africa and is temperature sensitive. (was it M. spectabile?) Next was *Sedum morganium*, growing between some bricks in a wall. If you have it in a small pot when you repot it, it's very brittle. The variety "burrito" is a cultivar with rounder and shorter leaves and slightly more robust.

Ferocactus stainsii had nice bright spines on the new growth. *Echinocactus grusonii* will flower when it is football sized. The crown can be filled with satiny golden yellow flowers. An Espostoa from Peru was developing a psuedocephalium (a flowering zone) down one side of the stem. Once this starts to develop, it grows with the plant and flowers can form on any part of the pseudo cephalium. An opuntia was best viewed from a distance - it had few central spines but was armed with many large brown glochids. *Agave attenuata* comes from southern Mexico - it is soft leaved and has no vicious teeth or spines. Agaves have two types of inflorescence - straight up with side branches, or a long drooping inflorescence and this had the latter. The flower is a terminal inflorescence so the plant will normally die after flowering.

Espostoa lanata had also formed a cephalium. Next was a Cephalocereus but it wasn't *senilis*. *Echinocactus platyacanthus* comes from central Mexico and can grow very tall in due course. Individual stems can grow taller than a person, but it is rare to see a flowering size plant in Europe. They always have a strange shaped crown and they are very woolly, and we could see the flattened and grooved ribs on this picture.

A sprawling Opuntia had lots of spines. Another plant - now called a Euphorbia - used to be called *Pedilanthus tithymaloides* - it is also commonly called devil's backbone in reference to the zigzag stems that purportedly resemble a spinal column. The cuddly teddy bear cholla - *Cylindropuntia bigelovii* - from Arizona is an absolutely vicious plant. Tree Euphorbias can become big plants and there were some big specimens here, they appeared to be more than 25 feet tall, given the size of some people in the image. Myrtillocactus was in flower and this was followed by a Cleistocactus and *Cephalocereus senilis* - the "Old Man" cactus from Tamaulipas in Mexico - it is very slow growing. We saw a short curved-spined form of *Echincocactus grusonii* "brevipsinus", which seemed to be offsetting at a smaller size than they normally would. A shot of the overall landscape showed there were not many people here. We saw *Pleiospilos nelli* from South Africa with a Fenestraria in the background and *Pachyphytum compactum* from Mexico in the foreground. *Kalanchoe thrysifolia* had nice colour to the leaves. *Aloe sinkatana* with yellow flowers comes from Sudan. Another Aloe plant with yellow flowers and red anthers was probably *Aloe marlothii*. We saw another flowering Aloe with nice coloured/patterned leaves and then a rare Argentinian cereus called *Neoraimondii*. We ended with an overall shot of the garden.

Ben Turner - Jardin Majorelle

Ben gave a talk on the Jardin Majorelle (Yves Saint Laurent Mansion) in Marrakesh, Morocco He mentioned that he did a version of this talk in January 2020, before the pandemic. A slide showed some background history to the gardens - Jacques Majorelle patented the colour Majorelle blue which Allen Titchmarsh has used in some of his gardens. The garden was established in 1923 by Jacques Majorelle, but it fell into disrepair from 1950s onwards. It was rediscovered and restored in 1980s by Yves Saint-Laurent and Pierre Berge, and following the death of Yves Saint-Laurent in 2008, it became part of the Foundation Jardin Majorelle.

There is a lot of blue everywhere in the garden and there are some fantastic plants and palms here. This is the mansion, a lovely combination of the modernist design along with the Moroccan / north African architecture. A Ceroid was followed by a Yucca and *Echinocactus grusonii* and Ferocactus, quite a few of these were planted around the garden. A Furcraea is closely related to Agaves. The light levels are good here and there's a bit of shade for plants which need it. *Kalanchoe beharensis* has felty leaves. Ben said if you break a leaf off and hang it upside down it can form new plantlets easily. We saw another Ferocactus and also a fountain in the garden. *Opuntia microdasys* was enjoying the climate. it does get cold in the Atlas mountains but Marrakesh is at a lower altitude and is several degrees warmer. *Aloe vera* featured yellow flowers against a blue wall. *Gasteria croucheri* was growing in a pot - it was probably getting too much light so there was a bit of leaf tip die back. An Epiphyllum was a large plant but it wasn't in flower – it's given the name orchid cactus due to the large spectacular flowers it can form. *Aloe marlothii* is from the Transvaal and it's similar to *Aloe ferox*. There was also *Aloe arborescans* in the background, and we saw a bird perhaps doing some pollination.

We saw a monstrose cereus. There was an adobe with gridwork clay/mud rendering. One site of the plants had an interesting sign trying to identify the plants, but what was on the sign and the plants that were actually there was rather different - perhaps some plants had died and had been replaced or had got bigger. We saw Opuntias and *Hylocereus undatus* - the dragon fruit. There were more Opuntias and *Agave macroacantha*. An agave in flower was one of the branching ones – it was *Agave vilmoriniana* which is one of the Octopus agaves. We saw *Yucca thompsoniana*, and *Pachycerus pri*ngliei was a large plant - it grows bigger than *Carnegiea gigantea*. *Ferocactus stainsii* had red spines. Some had nice fruits on them and there was also a Mammillaria growing there. *Ferocactus pilosus* is a plant which he has tried growing outside in this country we also saw *Ferocactus pottsii*. Two large Echinocactus plants were growing into each other and could perhaps be labelled Tweedledum and Tweedledee. Other Echinocactus had a lot of smaller offsets and this was perhaps due to some damage from the cold - they would look quite good after a few years. A monstrose Myrtillocactus had a chalky grey blue colour to the epidermis. A plant growing along the ground was an Echinocereus or a sprawling Trichocereus. There were a few agaves, including a couples of forms of *Agave parryi*, including a large one with a glaucous grey bloom to the leaf. *Agave chrysantha* from Arizona is supposed to be quite hardy.

Vinay Shah

Next Month's Meeting

Our next meeting will be held on Tuesday March 7th and it will feature a talk by our own member Tom Radford, who will be speaking about "The Asclepiadaceae - The Stapeliad Family". According to Wikipedia, there are 348 genera and 2900 species contained in this grouping, so it's a pretty large family of plants.

Forthcoming Events

Sat 11th Feb	Isle of Wight	Show and Tell. Bring along a plant and tell us all about it.
Sat 18th Feb	Portsmouth	Totally Potty About Succulents (Amelia Herbert)
Tue 7th Mar	Southampton	The Asclepiadaceae - The Stapeliad Family (Tom Radford)
Sat 11th Mar	Isle of Wight	Cactus and Succulent Quiz
Sat 18th Mar	Portsmouth	Madagascar Exposed (David Traish)

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