



The Bulletin

Epiphyllum Society of America

Founded May 5, 1940

International Registration Authority



Hylocereeae Cultivar Group



‘Ulana Mauve Delight’

Hybridizer: Tony Hanson

Parentage: ‘Slightly Sassy’ x ‘Orange Julius’

Photograph: Michael Guillot

PUBLICATION INFORMATION: The Bulletin is published quarterly in Autumn, Winter, Spring & Summer, by the Epiphyllum Society of America.

COPYRIGHT of by-line articles belong to the authors. Other contents, © ESA, 2020. All rights reserved.

REPRINTS, QUOTES AND TRANSLATIONS of Bulletin articles are welcome, provided prior, written permission is obtained from the ESA Bulletin Editorial Board and/or author, and The Bulletin is cited as the original publisher and permission grantor. The courtesy of a free issue of publication with a reprint is requested for the ESA Library. E-mail requests or new material to the ESA Bulletin Editor at epinut01@juno.com or mail to the Membership Secretary.

SUBMISSION of news items, articles, slides, photographs or illustrations pertaining to epiphytic cacti, the ESA or other epi societies and their members are welcome. Query Editorial Board for lengthy articles. The Editorial Board reserves the right to reject or edit submitted materials, solicited or unsolicited. Items will be returned if requested in advance.

SUBMISSION DEADLINES: 15th of Feb., May, Aug. and Nov.

DISPLAY ADVERTISING RATE: Contact Editor for rates

DISCLAIMER: Opinions expressed are not necessarily those of the Society or Executive Board. Mention of products or services does not constitute an endorsement.

PURPOSE STATEMENT SUMMARY: The Epiphyllum Society of America was organized to: register and establish epithets and diagnostic descriptions of epiphytic cactus hybrids of the Tribe Hylocereeae, and publish the International Register (The Registry of Hybrids and Species), and periodic updates in accordance with the International Code of Nomenclature, fulfill the duties of International Registration Authority, publish a newsletter, promote interest in epiphytic cacti hybrids, species, and related genera, conduct programs of interest to members; facilitate communication among members; and sponsor annual Flower Shows.

SUBSCRIBERS receive for one year's dues, four issues of the quarterly Bulletin, a yearly Addendum to The Registry, and a discount of \$15 off The Registry price.

ANNUAL DUES: For electronic world-wide delivery of The Bulletin: \$20 payable by check or money-order made out to the Epiphyllum Society of America, in US currency, drawn on a US bank. Mail payment to: ESA Membership, Geneva Coats 12558 Telephone Road., Chino, CA 91710-5080 USA. All new Memberships or renewals due Jan 1. Annual Dues are applied to the following year if paid from September 1 to December 31. Members may also pay online via our Square Market page: <https://squareup.com/market/epiphyllum-society-of-america>. Renewal receipts are not issued.

FOR INQUIRIES: Send an email to genevacoats@aol.com.

ROSTER CHANGES or other membership issues: send them to the Membership Secretary.

MEETINGS: In person meetings have been temporarily halted due to the pandemic. When it is deemed safe the ESA will go back to the previous form where meetings began at 7:30 p.m., on the first Tuesday of each month (except January, December and US national holidays). Admission and parking are free. Refreshments are served. Members and guests attending their first meeting receive a free potted epi. Regular meetings are held in Lecture Hall B, Arboretum of Los Angeles County, 301 North Baldwin Avenue, Arcadia, CA, USA. Take the Foothill Freeway (I-210) to the Baldwin Ave. exit, south. Follow the signs to the Arboretum. The December meeting is the Holiday Banquet. Paid dinner reservations are required.

BULLETIN STAFF EDITOR: Keith Ballard 310-670-8148, epinut01@juno.com

LAYOUT & DESIGN: Charleen Ballard Rice

COPYWRITER: Kat Crawford

SOCIETY OFFICERS AND DIRECTORS

President..... Jeff Bates
909-576-0321, jeffbates@gmail.com

Membership Chairman..... Geneva Coats
909-438-8242, genevacoats@aol.com

Treasurer..... Geneva Coats
909-438-8242, genevacoats@aol.com

Recording Secretary..... Gumbii Garcia
562-450-7549, Santogumbii@gmail.com

Corresponding Secretary Michal McKee
Director..... Keith Ballard
310-670-8148, epinut01@juno.com

Director..... Gumbii Garcia
562-450-7549, Santogumbii@gmail.com

Director..... Ken Hanke
818-239-6479

Director..... Janet Lai
909-229-0453, Speedy4Us@aol.com

Director..... Jim Nones
818-284-1199, jjan21@hotmail.com

Director..... Eddie Huey
eddiehuey@gmail.com

COMMITTEES & CHAIRPERSONS

CSSA Affiliate Representative

Ken Hanke 818-239-6479

ESA Pentico Collection

Curator:: Ken Hanke 818-239-6479

Co-Curator: Gumbii Garcia 562-450-7549
Santogumbii@gmail.com

International Epi Registration and Research Committee

Co Registrar: Eddie Huey eddiehuey@gmail.com

Co Registrar: Beth Jackson 858-692--0314

Jeff Bates 909-576-03 jeffbates@gmail.com

Jim Nones 818-284-1199 jjan21@hotmail.com

International Schlumbergera Registration Committee

Registrar: Mark Ogilve electroptic@gmail.com

Janet Lai 909-229-0453 Speedy4Us@aol.com

Jim Nones 818-284-1199 jjan21@hotmail.com

Volunteer Coordinator

Ken Hanke 818-239-6479

Display Coordinator Flower Show & Sale

Geneva Coats 909-438-8242 genevacoats@aol.com

Librarian

Jim Nones 818-284-1199 jjan21@hotmail.com

Program Chairperson

Jim Nones 818-284-1199 jjan21@hotmail.com

Refreshments Coordinator

Ken Hanke 818-239-6479

The Board meets monthly, on the last Tuesday of the month at 6:00 P.M. currently via a Zoom call. Please contact one of the Board Members if you wish to attend.

Contents

Happy 100th Birthday to Ed Beardsley	25
Epi Sale in June !	25
Hybridizing Epiphyllums.....	26
More About Wressey Cocke's Hybrids.....	27
Recent ESA General Meeting Highlights	27-30
Culture Calendar for Winter.....	31-32
Spotlight on Species.....	32-33
Optimum pH for Epi Growing and Flowering Epies.....	34
Why I Switched to Cactus Mix.....	35
News from New Zealand	35-36
Around the World in Epi Days.....	37-38
A Few Selections of New 2020 Registrations.....	39
Color Flower Picture Pages	40-41

Happy 100th Birthday to Ed Beardsley

Ed Beardsley turned 100 years young on March 11th, 2021. He has had such a full life and looking forward to much more. He had a career as a music teacher as well as being a professional musician. He has always been active in his church. One of his great loves has always been gardening. He loved being a part of the Epiphyllum Society. He enjoyed all the wonderful people and events. He was active for many years and served as president for four years. In 2010 he received the Founders Award. He worked as a volunteer at the Arboretum for many years and was instrumental in getting them to grant the Society an Epiphyllum garden section with a fountain that he picked out. He really misses everyone and has many wonderful memories of his time spent at the Epiphyllum Society. He is grateful for all those years and sends his best wishes to all.

Epi Sale in June!

Due to the pandemic, we have not been able to convene for meetings or hold our Annual Show and Sale to raise funds, so the ESA will be holding the first ever online sale. There will be many varieties of cuttings from the Pentico Collection as well as some new introductions from local hybridizers. The sale will take place June 19th to the 27th. A preview will be offered to current ESA members before opening up to the general public. Details can be found on the ESA website - <https://www.epiphyllums.org> .

Hybridizing Epiphyllums

by **Wressey Cocke, *ESA Cultural Notes***
Fall, 1980

This article is a slightly updated from the Bulletin, Vol. 36, Issue 2 Nov-Dec 1980. As such it is 41 years old and some of the nomenclature and format of the genera (i.e. species of cactus) are out of date and are incorrect. The author, Wressey Cocke (now deceased), was one of the most influential and prolific hybridizers of the late 20th century. This is the only written material by Wressey that I have for Wressey. KCB

Hybridizing epiphyllums can be a very rewarding experience.

What is hybridizing or crossing? Hybridizing or crossing is transferring pollen from one variety to another with the objective of producing a brand new variety. Hybrid seedlings do not “come true” and can only be propagated by cuttings to produce a like plant and flowers, they may look like either of their parents, a combination of both or neither of their parents. Epies have been crossed, intercrossed and cross-intercrossed so often that no one could prophesy, with any accuracy, what is likely to turn up. It is possible, for instance, to cross two reds and get many colors as well as red, such as pink, white, orange, purple and even yellow. It is this unexpectedness in results that makes the hobby so fascinating. It is best to cross two completely different colors to get several different colors. Two similar colors will produce more of that same color.

By selecting parents which have certain characteristics, these parents have a better capacity than others for passing on these characteristics to their offspring. Some characteristics such as growing habits, flower size, scent, form or pattern can be determined to a certain degree.

Reproduction process of Epiphyllums: Epies are bisexual, having both pollen bearing stamens (male) and carpel (female). The carpel contains pollen-catching stigmas and ovule, (plant eggs) which are enclosed in an ovary in the lower part of the flower. Each stamen consists of a long stalk called a filament, bearing at its end a little sack called an anther. These anthers contain the pollen. Production of seed depends on the transference of live pollen from the stamens to the stigmas. The pollen germinates and fertilizes- the ovule which then develop into seed.

Being bisexual, epies often become self-fertilized. In roses, the anthers are removed so that the stigmas will not become fertilized. In epies, this is not necessary.

The pollen is best taken from a flower with a small brush when the flower first opens, or at least within a few days. The pollen should be applied to a flower as soon after it opens as possible. If you get there before the bees' and the wind, you will have very little self-fertilization.

If the pollen “takes”, the ovary remains green and attached to the plant after the flower fades. If there is no “take”, the entire flower fades and ultimately drops off.

The time taken for the fruit to ripen is variable. It may take from five months to one year. When the fruit is ripe it is red or sometimes yellow. On some plants the fruit remains green and takes longer to ripen. A ripe fruit may be recognized by its color and it will become soft to the touch. If left on the plant too long, the fruit will decay and perhaps sprout in the pod. When the ripe seed pod is cut open, the black, shiny seeds are seen embedded in a soft, light green, pink or dark red-pulp. Each seed is covered with a sticky jelly.

Seeds may be picked out and put in a pan or aluminum foil, to which they will adhere. If there are only a few seeds to be planted later, the foil is best because the seeds' information (number of the cross, date crossed, date from pod, etc) be written on the foil. The seed may remain on the foil until ready to plant.

Another method of removing the seed is to put seed and pulp in a jar of water and gently shake not to injure the tiny seeds. The pulp is lighter than the fertile seeds and with care can be floated off. The seed may then be dried and planted within one year. The seeds that float are infertile and can be discarded with the pulp.

The number of seeds varies widely from a few to many.



Wressey Cocke seedling

More About Wressey Cocke's Hybrids

By Keith Ballard

Wressey Clem Cocke was born in 1905. His first registration of a hybrid epiphyllum was for 'Amazement' in 1970, which would have been for him, the traditional year for retirement at age 65. The next registration started the flood of his registrations in 1976 that lasted till 1991. Wressey's total number of new hybrid epi plants, that have been registered is 588. This number includes only epies from Wressey Cocke seed. Wressey registered a total for 49 himself. The rest were given to a number of others, such as Ethel Hurst and other epi nurseries to sell, or otherwise distribute, to get named, registered and enjoyed.

Wressey died in 1993. His article, 'Hybridizing Epiphyllums', which is included in this Bulletin, was originally published in Nov-Dec, 1980.

As a side note, Wressey and I both worked for the Hughes Tool Company during 1956 to about 1959. We did not work on the same projects at any time. Wressey was a stress analyst, and worked the *Flying Boat* and I worked on maintenance for the F106 Fighter. This was years before I got into epies. I met him once.



Wressey & Marjorie Cocke

Highlights of Recent General Zoom Meetings

By Keith Ballard, Charleen Ballard Rice
and Jeff Bates

February 2021

The February General Meeting was held on Saturday Feb. 14, hosted by President Jeff Bates and conducted as a Zoom meeting. The program was of 155 photographs of epi flowers by Don Crain. If you don't recognize the name, Don Crain is a SDES member who uses (and carries) a camera tripod while taking pictures at some of our Annual Shows. And being a Zoom presentation, the pictures here are actually from the face of my computer monitor. There are 6 sample pictures from the presentation in this Bulletin.

President Jeff gave, for each picture, a running dialogue of: the flower originator, whether he had it, some characteristics, whether he liked it, etc.

March 2021

The March General meeting was held on Saturday Mar 13th, The program was on the work of Heinz Peter Mohrdiek. His bio was presented by President Jeff Bates and is as follows. Heinz Peter Mohrdiek was born in 1950 in Seester/Schleswig-Holstein, Germany. He has been married to Christa Mohrdiek for 47 years and the two have two children and two grandchildren.

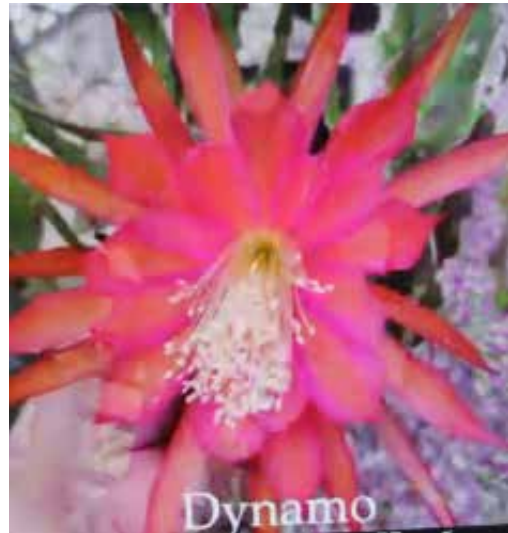
He started his life in agriculture with a Master's degree and for a while managed his own farm. Then, he segwayed into 20 years working in semiconductor manufacturing, and agriculture became very much a secondary priority. He was laid off from that work and is now retired.

In his own words, now "We do what we enjoy and what we feel like doing." In the fall of 2010 he built a polytunnel greenhouse in which to grow epiphyllums year round. He built it to allow for insulation from the elements and to protect from too much sun. He also made in so that he can enter it from either side. He even has to heat it during the winter. He has his epies on shelves with multiple rows, and most of them stay in the polytunnel even during the summer.

This started because 12 years ago he received 15 unnamed plants, which quickly flowered profusely. Like many of us, this led to a fascination with these amazing flowers, called "Episucht" there. He has a

(continued on page 29)

Some of the photos taken by Don Crain, shown at the Feb. Zoom meeting



Recent Meeting Highlights

(continued from page 27)

large selection of German hybrids, as well as some American hybrids.

He and his wife have been members of EPIG for years and currently his collection has over 1200 epicacti, around 200 Thanksgiving / Christmas cacti, about 100 cold hardy Opuntia, 25 other Opuntia, about 100 succulents and quite a few other cacti. They have an Ebay store in which they sell cuttings and seedlings in Europe.

As for his own hybridizing work, he does not plan but instead uses exclusively ex Nat crosses, where only the seed parent is known.

We are proud to have been able to show pictures of his collection to our members during our March meeting.



(Heinz Peter in his greenhouse)



'Ballerina'



'Prairie Sunset'

The April ESA General Meeting was held on Saturday April 10th. Chris Welcher took us on a virtual tour of his nursery using his cell phone.

He has about 3500 potted epies for sale. The tour was so early in the year that only a single epi was blooming.

Here is his narrative as he walked through the nursery: "Basically when you come here, the first thing you see to find me is the "haunted shack: which I keep up year round now as it is too hard to rebuild every year. Of course we grow plumerias and Don Burnett keeps sending me dragon fruit even though I have absolutely no room to grow them. So now I grow in the plumerias area, as that is the only place I can figure out where to grow them.

The first stock area we go to is basically off to the side here. So you can see I have everything alphabetized so these are your A's B's C's and D's. You can see my soil containers which I am going to have to mix a whole new batch of soil in the next three weeks. While I am mixing soil I usually mix between 5 and 8 cubic yards at a time so that is a little back breaking work.

One of the few blooms open today is 'Ben Hawks'. Now we will walk you around to the side here. One thing I can show you is that I don't hand water anything anymore. Everything is on essentially on a drip system. Last year my wife got sick and I had to come in real quick and basically put the whole entire nursery on automatic watering".

Jeff's comment: "Probably better anyway as I feel with manual watering I miss stuff".

Chris again: "The one thing I have figured out is if you just do a drip system, it doesn't work well. These right here are spray nozzles so they are 180 degrees fan spray inside the pot. It will cover the whole area inside the pot. At first I was just doing drip nozzles, and I was finding out that it would wet the center the pot and just go straight through and the outer edges of the pot would not get wet. So I had to change the design a little bit.



Chris presenting at the meeting (continued on page 30)

Recent Meeting Highlights

(continued from page 29)

There is a 'Primary Ignition' blooming around here. Usually someone has one at those at our South Coast Plaza and it gets the blooming season going really well".

The pictures on this page and the previous one show Chris and a couple of places in the nursery. To visit the Pacific Epiphyllum Nursery, you need to make an appointment with Chris on Facebook or via the nurset web page

May 2021

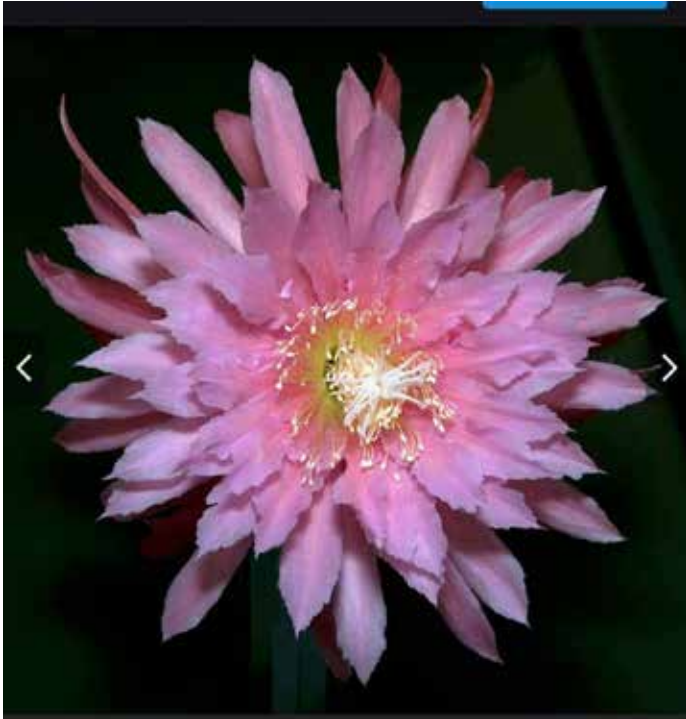
The May meeting on Saturday May 15th was a tour of the ESA's Pentico Epiphyllum garden. The meeting was a **Zoom** style meeting. The meeting was organized by Gumbii and presented by Ken Hanke. Gumbii was the photographer, videographer and editor of the presentation. You can view this meeting and the previous ones on YouTube from the ESA website at <http://www.epiphyllumsociety.org>



Another Part of the Nursery



View of Part of the Nursery



'Pink Plumes', photo taken by Don Crain

Culture Calendar for Winter

By Keith Ballard

Reprint from ESA The Bulletin, Vol. 60. No 2, Winter 2005. We always include a Culture Calendar to help new epi growers. The purpose is to help reduce learning by the hard way, that is, by making mistakes. KCB

In winter the epi collector must be very aware of what to expect in the way of weather, and to provide the necessary protection that will safely see his or her epies collection through the season. However, remember cold weather is a good thing as it allows for a rest period, or dormancy, necessary for encouraging bountiful blooms the next spring.

Temperature. Epies can stand near freezing temperature for a fairly long period without visible damage. However, if there is frost, there may be damage especially to the soft new terminal growth. To safeguard an outdoor collection a white plastic covering or wrapping is usually sufficient for milder areas, especially when the minimum temperatures last a relatively short time. More protection is added with the heaviest clear mil plastic available as a covering over the growing area. The thermodynamics of the situation is that the plants lose heat by both conduction to the surrounding air, and by radiating heat to their surroundings, including the sky. Under clear conditions, the heat lost to the sky can be significant. On a clear night, the sky is at the temperature of outer space which is near absolute zero, or minus 460 degrees F. The heat lost is proportional to the fourth power of the temperature difference. Clouds or anything that blocks the view of the sky lowers the temperature difference and cuts the heat lost significantly. Older California residents may remember the old agricultural "Smudge Pots", which were oil burners in the orange groves. The purpose was not to heat the groves, but to cause clouds in order to decrease the heat lost to radiation. Such clouds we now call "smog" and the burners are outlawed. Any covering or wrapping should be well secured against winter winds. An emergency short time protection is provided by watering the epies' surrounding area well, NOT the epies themselves. The time that an epi will tolerate exposure to freezing temperatures is reduced if the root ball is saturated with water. Epies resist cold better if on the dryer side. If prolonged freezing temperatures are to be expected, the safest plan is to take the plants indoors where the temperature

can be maintained above freezing. Temperatures between 40 and 45 degrees are ideal for the plants to "rest", and produce optimum flowers next Spring. The typical. epi will do fine if night time low temperatures do not drop below 45°F, with an occasional dip toward freezing, assuming it doesn't last more than a few hours. But, if the day time temperatures do not rise to at least 50°F on most days, your epies will need more warmth. A time controlled string of old fashion Christmas tree lights under the covering is an ideal heat source. If the root ball freezes solid it will kill the roots and they will rot. Then you will have to deal with the familiar situation of a plant without roots. Epies with minimum light and water hibernate.

Water. Watering in winter is even more of a balancing act than for the rest of the year. As discussed above, you need to favor the dry side especially if it is cold. However as usual, the root ball cannot be allowed to completely dry out. If there is sufficient rain, no added water will be necessary, sometimes for many weeks. Epies love rain water, if there is sufficient drainage. Rain has the significant beneficial effect of leaching out salts left by the tap water or other sources. Unfortunately, it also leaches out fertilizer, especially liquid fertilizer. It is unfortunate that the epies in the harshest climates that require covering, will miss the benefits of the cleansing seasonal rains. If the rain is not sufficient the epies have to be carefully watched for drying out, especially if the humidity is low. If the humidity is high, they will stay moist longer.

However, if there is a lot of rain, and the root balls are soggy for an extended period there is the usual danger of root rot. This might be an additional reason to cover your epies. This covering, depending on the timing of the excess rain, might be for only part of the season.

Fertilization. Epies can show signs of buds as early as December. But many growers, to avoid interrupting the dormant period, forgo winter fertilization at least till midwinter, say around Ground Hog Day. Some then start the seasonal fertilization cycle with an application of 0-10-10 or 2-10-10. Early blooming is especially found with the smaller varieties, which have a tendency to start to bloom as early as March in the milder climates. If trying to maximize growth, such as for plants too young to bloom or for propagation, fertilization could continue all year.

Grooming Continue to groom and trim your collection, especially if you didn't finish the job

(continued on page 32)

Culture Calendar

(continued from page 31)

in the fall. Mushy (the result of excessive water), blackened or branches with mostly dead areoles should come off. The plants generally “tell” you what branches to remove. If you get frost damage, move the plant to a more protected place or otherwise protect it more and see what develops. No matter how bad the foliage mass is, if the root structure is healthy, the plant will probably eventually recover. If you have hail damage, remember it is entirely cosmetic. If you are not interested in the seeds, remove any seed pods. If you are interested in the seeds, you can find more culture information below.

Planting and Repotting. Except for the mildest of climates, the winter months are the least appropriate for planting cuttings or repotting. Generally, planting cuttings or repotting at this time of year is considered an emergency situation. Examples might be a plant that has fallen and broken its root ball, or a plant that suffers from a water logged root system due to poor drainage or excessive rain or watering. With the latter you need to remove the rotted and mushy roots completely, and treat the plant as a cutting.

Pests. Be on guard for pests. Snails and slugs still find epies an irresistible feast. Malathion or insecticidal soaps will still deal with insect pests. However, we may have created a new problem for our collections. When we cover our epies with plastic, we have not only insulated our epies, we have just protected any epi loving vermin from its’ natural predators. Now might be the time for poisoned baits or traps that we would avoid for pets or other considerations in the warmer times of the year.

Seed Pods Many of the epi cultivars seed pods will cling to the plant until the following spring before ripening. If you are interested in the seeds, the pods need to be protected from frost and pests. Protective coverings of the seed pods of paper bags or wire mesh will usually discourage any four legged raider.

If you are interested in doing some hybridization Wressey Cooke’s article in this Bulletin is a start. There also is an excellent more detailed newer article by Don Burnett: “*Growing Epiphyllums from Seed*” starting in *Bulletin* Vol. 58, No. 3, Spring 2003.

Spotlight on Species

Featuring various species of epiphytic cacti

Schlumbergera lutea

by Geneva Coats

Along with other *Schlumbergera* which originate from the coastal Atlantic rainforest of southeastern Brazil comes this little gem. Known formerly as *Hatiora epiphyллоides*, *Pseudozygocactus epiphyллоides*, or *Rhipsalis epiphyллоides*, this plant has was first described and named in 1935, but has recently been reclassified after molecular DNA phylogenetic analysis into the *Schlumbergera* genus. Since there was already a species named ‘*Schlumbergera epiphyллоides*,’ in 2011 this species was renamed “*Schlumbergera lutea*” for it’s lovely soft yellow flowers.

Schlumbergera lutea has the stout, flattened stems typical of other plants in the genus, as well as a compact vegetative body and spineless areoles. New, somewhat triangular growth emerges in an acrotonic manner from the branch tips to form fan-like waves with the characteristic yellow flowers emerging from the branch tips. Individual stem segments vary in length depending on variety but in general are tiny, from about 1/2” up to an inch on more mature segments. The branches are a medium to deep green color, but with sun exposure the epidermis turns a burgundy red color. Typical of other epiphytic cacti, adventitious roots are often present. There are several subspecies identified by differing length of the stem segments. It is suspected that these ‘subspecies’ are actually just normal variants within the same species, as would occur with seedlings.

Schlumbergera lutea is relatively rare in cultivation and considered endangered due to deforestation in its native habitat. It also has a reputation of being difficult to maintain in cultivation. *S. lutea* is a shade-loving epiphyte, growing naturally under a rainforest canopy. It prefers a loose, well-drained substrate. High humidity and still air is desirable, and considering the plants diminutive size, it makes an ideal subject for a terrarium-like environment. *S. lutea* prefers relatively cool growing conditions and can tolerate near-freezing weather for brief periods. Temps between 32-77F (0-25 C) are preferred.

Photos can be found on the next page.

(continued on page 33)

Spotlight on Species

((continued fom page 32))



S lutea photo courtesy of Desert Plants, Netherlands



S lutea photo courtesy of Geneva Coats



S lutea photo courtesy of Jorge Quinonez



S lutea photo courtesy of Jorge Quinonez

Optimum pH for Epi Growing and Flowering Epies

By Keith Ballard

If you ask most epi growers what the optimum range of pH is for growing and flowering epiphyllums they will probably answer 5.5 to 6.5. And, if you ask what is the pH range in their epi garden. Most will reply effectively: "I don't know". If they are not doing anything to control the pH, their garden is at a pH as close to 7 as the water supplier is willing to make it.

In chemistry, pH denotes the potential of hydrogen or power of hydrogen and is a scale used to specify the acidity or basicity of an aqueous solution. Acidic solutions (solutions with higher concentrations of hydrogen ions) are measured to have lower pH values than will a basic alkaline solution.

The pH scale is logarithmic and inversely indicates the concentration of hydrogen ions in a water solution. Each value is 10 times change to the next higher or lower value.

At 25 degrees C (77 degrees F) , solutions with a pH less than 7 are acidic, and solutions with a pH greater than 7 are basic. Solutions with a pH of 7 at this temperature are neutral (e.g. pure water). The neutral value of the pH depends on the temperature, being lower than 7 if the temperature increases. The pH value can be less than 0 for very strong acids, or greater than 14 for very strong bases

The pH scale is standardized to a set of standard solutions whose pH is established by international agreement. The pH of aqueous solutions can be measured by a pH meter, or a color-changing indicator. Measurements of pH are important in chemistry, agronomy, medicine, water treatment, and many other applications.

The term "pH" was first described by Danish biochemist Søren Peter Lauritz Sørensen in 1909. pH is an abbreviation for "power of hydrogen", where "p" is short for the German word for power, *potenz* and "H" is the element symbol for hydrogen. The H is capitalized because it is standard to capitalize element symbols. The abbreviation also works in French, with *pouvoir* translating as "the power of hydrogen"

The U.S. Environmental Protection Agency is in charge of monitoring public drinking water quality across the United States. pH isn't a quality that falls under EPA regulation because it's considered

an aesthetic quality of water. However, the agency recommends that municipal drinking water suppliers keep their water supply at a pH of 6.5 to 8.5.

I don't think the West Los Angeles water, where I live, ever gets near to a pH of 8.5. I think that if it did my epies would all die, or at least would not bloom. I have measured the pH of the going in and coming out water of a couple of my epies, that have been repotted with the new cactus mix. My low cost pH meter measures the pH of water going into my epies at 7 and a little bit more. And it reads 7 and a noticeable amount higher from the water coming out of the pots than the going in value. What does that mean? Does the epi mix absorb some of the boosted acid in the cactus mix or the *Care* fertilizer, or both. Or maybe my pH meter is no good.

Two of my epi plants, 'Guiding Star' and 'Professor H.S. Irwin' have each had 9 buds so far this year. 'Guiding Star' was repotted earlier this year with the new cactus mix and *Care* fertilizer. Also, remember that' it is partly in the exhaust hot air of the clothes driver. 'Professor H.S. Irwin' was not repotted this year and has completed flowering.

At this point I have data on just 2 plants, not enough data to insure good choices. So I'm going to stop most experimenting for the moment, and just enjoy at least part of the blooming season. I will fertilize with 0-10-10 to enhance blooming as usual around Feb 1. However, for the group of around 20 plants on Platform 9, they got *Care* fertilizer. We will see what the impact of that is on flowering. Also, I may try something else on a small scale later.



'Montecito', photo taken by Don Crain'

Why I Switched to Cactus Mix

By Keith Ballard

Some time ago I got to wondering if cactus mix would be a better medium for epies than the mix I have been using for years. After all cactus mix is also slightly acidic, and epies are actually "acid loving".

So, I designed the following experiment. I took two, as identical as I could make them, cuttings from a 'Young Nun' plant. I planted one cutting in my then regular mix: 1 part LGM potting soil, 1 part leaf mold, 1 part orchid bark, 1 part Perlite and 1 teaspoon of my mix fertilizer. And the other cutting was in 2 parts cactus mix, 1 part orchid bark and 1 part Perlite and 1 teaspoon of *Care*. 'Care' is a fertilizer for acid loving plants, such as an Azalea or Gardenia. When I checked the next season the epi cutting in the cactus mix had grown significantly more than it's counterpart. In fact it had grown a new branch.

Then, I bought some cactus mix and started repotting with it. By then it was fairly late in the repotting season so I didn't get too many epi plants repotted with cactus mix.

So, lets go to the blooming of the 2020 season. I had hoped that with the new more suited mix, there would be more flowers. For the 122 epies, whose blooms were counted, there were a total of 458 blooms. That's an average of 3.75 blooms per plant. One of problems I had during the 2020 was my computer's "hard drive" failed and all data on it was lost. I had a lot of the epi data "backed up", but the average blooms per plant wasn't one of the things saved.

However, there were a couple of remarkable results. One was that a number of the plants increased the size of their blooms, where the normal large sized blooms jumped to 10 inches. The other is the number of off season blooms had increased. I have had many cases of off season blooms of at least 1 bloom per plant, and some cases of more than one bloom per plant, every month since May. This article was written in early November, and two plants have bloomed this February.

As Pat and I enjoyed the 2020 flower season alone, I repotted the epies whose repot time had come. However, with the Pandemic, everything takes more time to do, so I did not get as many epies repotted as normal. And in addition I started late. So, that's it. We will see this Spring how the 110 repotted epies, with cactus mix, fare against the rest of the collection.

News from New Zealand

By: Eddie M. Huey

Grant Maurice Bayley Passes

It is with deep regret that we bring news of the passing of Grant Bayley, New Zealand hybridizer, on Dec 20, 2020.

Grant Maurice Bayley was born August 30, 1953. Gone to join his parents George and Doreen and friend Ray. Grant is leaving a huge gap in our family and will be greatly missed. Loved by many; a passionate plant man whose Serenity Garden was featured in the 2020 Garden and Art Festival. A celebration of Grant's life was held at Te Puna Quarry Park on Dec 23, 2020.

Grant started collecting around 1997 after attending the Wellington Epiphyllum and Hoya Society's convention. He was captivated by the cascading and floriferous blooms of small hybrids he saw. 'Lilliput' (Beahm), 'Pink Snowflake' (Buchanan) and 'Cheerfulness' (Cocke). He returned back to Auckland with many cuttings in hand.

Grant Maurice Bayley



Photos: 'Raspberry Swirl', 'Little Fire', 'NewsFlash' (un-registered) © Kat Crawford

Grant interacted with Gerry Mattijetz from stateside, who convinced him to try hybridizing. In doing so, he registered 10 hybrids with the ESA Registry, with his first being 'Raspberry Swirl', a medium cross between 'Dr. John T. Cox' and 'Petal

(continued on page 36)

News from New Zealand

(continued from page 35)

Pusher'. A majority of his other hybrids were small bloomers, a result of using 'Lollipop' and 'Light-N-Bright' as parents. The hybrids include 'Curly', 'Flash of Passion', 'I'm Here', 'Jolly Jaffa', 'Little Fire', 'Moments to Treasure', 'Pixie Pearl', 'Sheer Radiance' and 'Sweetness and Light'.

Grant was also an editor for the Auckland Epiphyllum and Hoya Society newsletter. Our condolences go out to his family.

RIP Grant

Carol Rogerson (South Pacific Epiphyllum)

Carol Rogerson (SPE) is a hybridizer of compact plants with small blooms. Not only did she register her own hybrids with the ESA as a hybridizer, Carol was the registrant for some of Grant Bayley's hybrids, who she was friends with. Her registered hybrids include: 'Alyssa', 'Bright Spark', 'Charmed', 'Golden Opportunity', 'Hot Wheels', 'Jewel of Happiness', 'Princess Kate', and 'Sunny Honey'. But she also has many hybrids she has never registered.

She caught an illness 4 years ago in Vanuata that attacked her brain and still continues to suffer long term effects from it. From that, a stroke occurred affecting her memory, so she is unable to remember many of the names of her epies. She is now retired and no longer collects epies. She had donated her collection of hybrids to a local disabled community in Auckland. She also sent her hybrids across Singapore, Malaysia, Australia and the US. Mildred and Gerry Mikas of SDES had the opportunity to visit Carol and her shadehouses in 2012.

We wish her well and good health.

Yvonne and Andrew Brunton (Craigmyle Epiphyllum)

The Bruntons introduced many new and wonderful hybrids in 2020. Over the past few years, several groups from Germany and the US have been placing orders importing many of their hybrids from New Zealand, which has allowed a good number of Kiwi hybrids to get into circulation. The latest orders (once a year) were recently shipped out to all customers in April, but with it came a heavy price.

They are not sure about offering future shipments. With increasing costs and freight delays, the process for exportation has become stressful for them. They

are hobbyists at heart, but the popularity of their hybrids has become overwhelming for them. They are not able to supply enough plant material to meet the worldwide demand. I'm sure they want to enjoy their plants and don't wish to cut their plants back heavily to fulfill sales orders. What started as a hobby to create their own hybrids, due to the lack of access to hybrids from overseas, has now turned the tables where collectors outside of New Zealand are looking to them, seeking their cultivars. The irony.

Covid has also added uncertainties with the exportation of plant material overseas. Limited delivery services with no alternative shipping solutions is affecting couriers worldwide. The increased business will also put them in a different bracket system where other authorities get involved, resulting in increased fees, declarations, insurances, etc. It sounds like they have become a victim of their own success. We wish them the best, as they navigate these decisions in the coming months, and hope to continue seeing new registrations.



Photos of unregistered hybrids: 'Spirit of Spring', 'Party Parasol', 'Magical Mango', 'Candy Crush', 'Magical Rosette', 'Nikola Marie' © Kat Crawford, Liz Eastwood

Around the World in Epi Days

By: **Eddie M. Huey**

In this series of articles, I will bring you stories and interviews from areas where people collect and grow epi hybrids outside of the more commonly known epi countries of USA, Germany and Australia. We will travel from the tropical areas of Malaysia and Indonesia to the cold Northern Lights of Norway, down to the tip of Argentina.

For this first article of the series, I headed down to the Southern Hemisphere to South Africa, home to the .za domain and where *Rhipsalis baccifera* is found growing naturally, outside of the American continents. No one knows how it got there, and it is Africa's only indigenous cactus <https://www.atlasobscura.com/articles/cactus-america-travel-mystery>. Along with *baccifera*, South Africa has an abundance of indigenous succulents so it was natural that the epi hobby would eventually make its way there. The peak blooming season for epies happens around the 2nd week of October each year.

I first spoke with Denise Wilshire who explained how the history of epies in South Africa started through a farmer named Tolmay in the Warmbaths area (now called Bela-Bela). A man by the name of Nick Smith, who was an airline pilot for South African Airways, purchased their operations, named Little Falls Nursery, as a way to occupy himself during retirement, but he was called back to the airlines. Through his travels, Nick made many friends, including Raymond Eden, former ESA president and The Bulletin editor, over in the United States. Eventually, Nick and his wife June would go on to start Little Falls Epi Nursery, in 1985. It was around that time that he introduced Denise to her collection. Nick would eventually retire and sell his nursery stock in 2000 to a couple, Sylvia and Harry Healey, and Dave Wylie of *schlumbergera* fame, specifically, Nick's *aprocactus* collection.

Sylvia first came across Little Falls Epi Nursery through an article in a gardening magazine. She contacted Nick, visited a few times to buy plants, and became close friends. Upon discovering they were having to sell, she made an offer for the nursery. Sylvia continued the Little Falls Epi Nursery name, but moved the operation down to Sundowner, Randburg, just outside of Johannesburg. They expanded the nursery offerings through the importation of cuttings from Gray/Davis Epiphyllums in San Diego, CA. They were mostly a mail order business with an online

website developed by their son. But after Sylvia had a back injury, they were no longer physically capable of handling many of the duties and decided to move on and retire in a town called White River.

At one of the local clivia (a plant popular and native to South Africa) shows in Rooihuiskraal, Pretoria SA, Sylvia Healey and Dave Wylie each had separate booths selling plants and, by chance, they met a woman named Helena van Zyl, who was a teacher of 32 years' experience. Helena purchased three epi plants from Sylvia and one zygocactus (*schlumbergera*) from Dave and, as they say, "the rest is history".



Helena Van Zyl

Within a few months, Helena found herself with a growing collection of epies and zygocacti, and now Helena currently runs Green Echo Nursery, which offers aporophyllum, epi hybrids, *Hoyas*, *Rhipsalis*, *Rhipsalidopsis*, and zygocacti. I reached out to Helena for an interview:

"In 2005 we decided to buy a small holding outside Krugersdorp, Gauteng West. I first started off with a herd of 31 milk goats and a small pig outlet of 9 large white sows and a boar. We did very well with the animals and started selling piglets weighing approximately 50kg. In 2010 we had a huge setback. While at school, our herd of milk goats got stolen. I managed to start small again with some Pedi sheep and also sold year old rams to Chamdor Meat Packers. In 2014 our sheep got stolen again. This was the last straw. With my enthusiasm and farming spirit broken, I decided to sell the rest of my animals. I am a very energetic person with a lot of skill and passion,

(continued on page 38)

Around the World

(continued from page 38)

but this left me with an empty void, so I started my nursery informally in 2016, mainly growing a variety of herbs, ornamentals, vegetable seedlings, clivias and, my old favorite, Amaryllis. It went very well and soon I found myself doing small markets twice a year. Soon, our country faced a terrible drought. This was the turning point in our production of plants. Cacti and succulent “fever” started growing rapidly in SA because of the lack of rain and water restrictions. I started a small collection of common succulents when my sister cut back two bushes of epiphyllums from my mom, who had them for over 50 years, and provided me with some of the cuttings, a red and a white hybrid. She came with this big box full of cuttings and asked if I wanted them. I planted them and very soon I was quite impressed by the progress and growth from the cuttings.



‘Sanbunani’

Nursery display



“In 2018 Dave contacted me to see if I would be interested in buying his collection of epies and *Aporocactus*. I agreed and it gave me a very good starting point. Ever since then, I have been purchasing small amounts of cuttings from California, USA and Germany.

“We are an online nursery (due to my full-time teaching profession), mainly sending via a courier company to our clients. We have expanded our markets to huge events like the biannual succulent show hosted by the Johannesburg Succulent Society at the Botanical Gardens in Pretoria, and other smaller markets.

I have a few hybrid crossings of my own and I am planning to cultivate them for distribution. I take into consideration the color, shape and growing style of the epi when deciding on a name, each of which relates to my own country of heritage:

Sanbunani: “Good morning” (a greeting in one of our African Languages)

Ashanti’s Gold: (named after a gold mine outside Carltonville in Gauteng West.

Racheltjie de Beer: A historical story we grew up with of a girl who gave her own life to save that of her brother.”

See you at the next stop. “H’epi” growing!

A Small Selection of All the New Registrations in 2020

by *Eddie M. Huey*

2020 was another incredible year for hybrids. Addendum 43 was released and we added 130 new hybrids and 4 new hybridizers to the Registry. They were Tony Hanson out of Australia, Marco Doussoulin of Chile, Michael J Viray and Jack Phelps out of the United States. While Tony Hanson isn't a new hybridizer, his hybrids were never registered, so through the efforts of a local group in Australia, Michael Guillot was the assigned registrant for Hanson's Ulana hybrids. Michael has said that there are hundreds waiting to be listed over the next few years.



'Clarity's Crown of Lights'



'Kiwi Jazzamatazz'



'Kiwi Luna Echo'



'Cecilla B. Viray'



'Ulana Mauve Delight'



'Rudolph's Puschelstern'

Photos by Registrants

Picture Pages



'Bob Grimshaw'



'Bos'n Harford'



'Circus Circus'



'Epi Society'



'Epi Con VIII'



'Fiesta de Flores'

Photos provided by Keith Ballard



'Arizona Sunrise'



'American Sweetheart'



'Arlene'



'Beach Party'



'Bisco'



'Bill Andree'

Photos provided by Keith Ballard