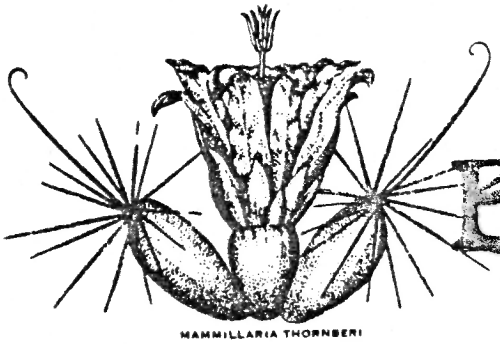

Espinas y Flores

BULLETIN OF THE SAN DIEGO CACTUS AND SUCCULENT SOCIETY
Affiliate of the Cactus and Succulent Society of America, Inc.

Vol. XV, No. 8. August, 1980

August Meeting

Saturday, August 9th, 1980
1:30 pm
Casa del Prado, Room 101, Balboa Park

"Chilean Cacti" in the Atacama Desert

by Ed and Betty Gay

The featured program for this month is a presentation, with slides, by Ed and Betty Gay on the "Chilean Cacti" of the Atacama Desert. The Gays have taken extensive collecting trips into Mexico, and they also wrote the article High Center and a travelog (1969) of Baja California for the CSSA Journal. Last year,at the CSSA Annual Meeting, they gave an excellent presentation on their trip to the Galapagos Islands. The Gays are past Chairpersons of several CSSA Conventions, and Ed is past President and past Board Member of CSSA. Living in Tarzana, California, they own Cactus Ranchito where one of the largest collections of Echinocereus is housed.

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Cactus-of-the-Month

Tephrocactus Lemaire

F. C. Thrombley

Tephrocactus (tĕf-rō-kăk-tŭs)
Sub Genus Sphaeropuntia
Opuntia Group (See January 1980 Cactus-of-the-Month, by Dr. Ronald E. Monroe, for the history of the Genus Opuntia)

A sub-genus of South American opuntias having short oblong or globose joints. The name of August's Cactus-of-the-Month is derived from the Greek meaning "Ashes" and "Cactus". They are mostly of a dull glaucous or ashy green color, hence the name tephrocactus or ashy cactus.

Tephrocactus are the alpines of the opuntia world. Like many high altitude plants, they are smaller versions of their relatives of the plains. Members of this genus are by far the most numerous of the sub-family opuntioideae in South America. They range from central Peru on both sides of the Andes, to the Argentinean foothills and far southward, growing at altitudes up to 4500 meters. The flower colors range from white, various shades of yellow, pink, orange and red. The seeds are circular and in one case the fruits have glochids inside. The spines show great variety from ribbon-like papery spines to acicular or stoutly subulate. Alternatively the spines may be completely absent or only short and some are hair-like or bristle-like. Too, the spines do not have the sheaths that their North American relatives have. In general, tephrocactus all form clumps of mounds in their habitat.

Britton and Rose described 17 species in their 1937 publication. Borg described 41 species in his 1959 publication and mentioned 6 new species he did not describe. Backeberg described 83 species in his 1977 publication. This, of course, is the result of explorations by the plantsman and botanist in South America during this century. Primarily after World War II.

Cultivation of this genus should not be very difficult. One should remember that they are plants from the high altitudes of the Andes and require excellent light conditions. They also are opuntias, which require little water. Inge Hoffman, in her article "Argentina", published in the Cactus and Succulent Journal, Vol. 51, describes a super-dry area at Molinos, a town at the 8000 ft. level in the Andean foothills where tephrocactus Molinensis and Weberi grow in abundance. I would suggest, therefore, that potted tephrocactus be planted in a well drained gritty soil and watered sparingly.

Dr. Monroe, in his article in January, on opuntia, described the difficulty in germinating seed from this genus. In their natural surroundings the seeds of tephrocactus undergo violent climatic changes from extreme cold to great heat. Further, when eaten by small animals they are excreted unchanged except that the hard outer coats have been softened by digestive processes. E. W. Putnam, a British author, writes articles for the National Cactus and Succulent Journal in Great Britain. In the March 1979 issue he

wrote an article about the difficulties of germinating seeds from tephrocactus. He soaked them in water, froze them at minus 18 degrees celsius, treated them with dilute hydrocloric acid and rubbed them on sandpaper before sowing. After 18 months he had not been successful. In the June 1979 issue he wrote another article describing the experiences that Lois Glass, a well known linguist and cactophile, had in germinating tephrocactus seed. Her own success came in the third year from sowing of about 20 seeds. Eighteen seedlings were produced after many iterations of watering, freezing, drying, etc.

Conversely, cuttings do not present problems in rooting for the majority of those who try. Roy Clemance wrote an article for the March 1979 issue of the National Cactus and Succulent Journal titled, "The Flowering of Opuntia Molinensis". In this article he related his experiences with a plant he acquired with 14 joints. In three years it lost 22 joints, all of which were successfully propagated. Most were knocked off the plant accidently. The Grigsby Cactus Gardens 1980 wish book or catalog lists eight tephrocactus species of rooted and unrooted cuttings. I purchased three types and they arrived via parcel post in very good shape and as described. I would certainly recommend propagating by cuttings.

For those who wish to grow opuntias but do not have the space, tephrocactus are excellent plants to raise. Most of them can be grown in 3 to 4 inch half pots. They will withstand low temperatures if kept dry. The joints of many of these tephrocactus are very loosely attached and should be kept in a place where they will not be bumped or jarred. A place also with excellent light.

References used:

Backeberg, Curt. 1977. Cactus Lexicon. Blandford Press, England

Borg, J. 1976. Blandford Press, England

Britton and Rose. 1937. The Cactaceae. Dover Publications, New York City

Martin, Chapman and Auger. 1971. Cacti and Their Cultivation
Charles Scribners & Sons, New York

Cactus and Succulent Journal, Vol. 51, July-August 1979 Issue

The National Cactus and Succulent Journal, Vol. 34, March 1979 Issue

ASCLEPIADS III

by Rick Latimer

My favorite book on succulents is Gordon Rowley's The Illustrated Encyclopedia of Succulents. Everything is included--beautiful color pictures (black and white pictures are nearly worthless in the colorful world of succulents), relevant commentary, etc., and the added bonus--the emphasis on the relationships (or nonrelationships) of the various succulent families, genera, and/or species. Not only are we given a diagram of the "family tree" (family bush?) of the higher plants showing the development and affinity of one plant order to another, but also each important family with succulent members is broken down into tribes. Had I been able to have produced this book myself, I would like to believe that I could have done it exactly as it is.

For example, our succulent-of-the-month family is broken down into six tribes. The sixth (and most advanced) is the Stapelieae (with its numerous genera), which we did here a year ago and which Dr. Barad spoke about last March. The fifth is the Ceropegieae, which we did here two years ago and Leo Pickoff spoke about in November 1978. Included are two succulent genera with the "bird cage flowers" as opposed to the "starfish" flowers of the Stapelieae, namely Ceropegia and Brachystelma.

The fourth tribe is called the Marsdenieae. Included in it is the genus Fockea. Fockea species are native to an area ranging from Angola to the Karroo. Species have a turnip shaped caudex with warty skin, twining stems and tiny dioecious flowers. In the Schoenbrunn garden near Vienna, Austria, there is what may be the oldest potted plant in Europe. Cultivated since 1799, a F. crispa plant was thought to be the rarest plant on Earth, since none others were found for many years. In 1905, the plant had a circumference of 41 cm.. The flowers of this species are grey green with small brown spots. F. edulis is said to be edible. Like the Stapeliads, Fockeas should be kept dry in our winter.

The third tribe, the Cynancheae, contains the succulent genera Cynanchum and Sarcostemma. The name Cynanchum is Greek for "to strangle a dog", due to poisons in at least one species. It seems that who ever named this genus could have been more creative. Species are native to southern and tropical Africa and Madagascar. Plants are usually straggly vines, but my favorite is C. marnieranum with its purple crab leg stems. The flowers unwind from birdcages to being free tipped. Most species' flowers are small open stars, such as C. rossii. The genus Sarcostemma is widely distributed in the tropics and subtropics of both the old and new worlds. Species with vestigal leaves are frequently found in southern and eastern Africa. The best known and commonest species is S. viminale. This plant was described to me as being the plant anyone could grow. Mine would not grow until I gave it some shade. I have never seen any flowers, but the

pictures of them look like Hoya flowers. This plant was confused with Euphorbia pendula in decades past. Len Newton related to us all that this plant was once voted "the most boring succulent" in Britian.

The second tribe is not specifically listed in Rowley's book. Perhaps it includes the genera Asclepias, Hoya and Dischidia. This first genus has some succulent members in the North American deserts. The genus Hoya was named for Thomas Hoy--and this is appropriate since Hoya means "jewel" in Spanish. The flowers are indeed jewels. Although H. bella, with its kaolin china white petals and pomegranate seed centers, is definitely not succulent; perhaps some of the more fleshy leafed species such as H. obovata are. Hoyas are native to India, China, Malaysia, Indonesia and Australia. Dischidias have a similar range, but are quite obscure, probably due to the fact that the flowers are small urns that never open much. Nellie Kennett has aptly described them as "not much". Two interesting species are D. rafflesiana and D.-pectinoides (with vermillion-red flowers) which have an epiphytic habit and bloated leaves. The twining stems have the roots hidden below the leaves, which absorb both water and nutrients into the leaves. D. bengalense has small succulent leaves and white flowers.

The genus Folotsia is homeless in another sense. It may have been absorbed into another genus, but who knows? Nonetheless it has been described as being indigenous to Madagascar. F. aculeata is a white flowered species with slender trailing, segmented branches covered with a silver powder. Plants eventually get bushy.

The first tribe is the Periploceae. The Milkweed family is distinguished by its flowers which have united filiments and pollen masses formed into pollinia (remember Dr. Barad's program?). The genus Raphionacme has flower filiments that are free and granular pollen (like other plants). Len Newton pointed out to us last April that this genus has been removed from this family due to this distinction. Whether one considers this genus a primitive member of this family or a "not quite made it" does not matter since we are including it today. Species are native to southern and eastern Africa. R. hirsuta has purple flowers. Mike Buckner had a R. flanaganii on his table exhibit at our last open house. It had a caudex and small flowers that looked like green passion flowers. He also had an unnamed Mexican Asclepiad, but who knows where it fits in!

REFERENCES:

Bryan R. Adams & R. W. K. Holland, "The Genus Sarcostemma in East Africa", CSSA Journal, (50), p. 107-111.

Clive Innes, The Complete Book of Cacti & Succulents.

Hermann Jacobsen, A Handbook of Succulent Plants, V. I & II.

Leo J. Pickoff, "From the Family Asclepiadeceae:Hoyas & Cero pegias", CSSA Journal, (52), p. 136-140.

Gordon Rowley, The Illustrated Encyclopedia of Succulents.

A. W. Smith, A Gardener's Dictionary of Plant Names.

Member Interviews: Madelyn R. Lee

by Marcia Monroe

Madelyn was born in Martinez, California, and ten years later the family moved to Bellingham, Washington. It is here that she received most of her formal education graduating from West Washington College. Subsequently, she was an administrator for Bank of America in Los Angeles for 15 years, and at the present time she is living in Vista (with her father) managing the Grigsby Cactus Gardens.

While on a trip to the Paiutes, she virtually "fell into the hobby" when she became entangled with Cylindropuntia. This necessitated a visit to the local hospital to have a doctor pull out several spines (spines were still attached to the stems) from her lower extremities. She later tried to kill the pieces by throwing them on a compost heap, but they kept growing. She became more curious visited the nearest library where she checked out The Book of Cacti and Other Succulents by Claude Chidamian (for beginners, the author gives an enthusiastic coverage of the hobby). This stimulated her interest and she became an active collector.

For eleven years she has been a serious collector and she has gone on collecting trips in California, Baja California and Mexico.

Madelyn has been a member of several Affiliate Societies, and during her membership in our Society she has held these positions: Treasurer and Education Committee (Plant of the Month). For CSSA she was a member of the Board of Directors and a member of the Conservation Committee, and with her past experience as a judge, Madelyn is now on the Judge's Qualification Committee.

One of her major projects was the compilation of a Fifty Year Index (1929 through 1979) for the Cactus & Succulent Journal, Published by CSSA.

Studying and researching euphorbias, and learning how to propagate and how to acquire them is Madelyn's speciality, and at the present time she is compiling a checklist of succulent euphorbias with a list of 1700 proven names.

The plant that Madelyn is viewing at the moment is the one she enjoys most, but she is also interested in growing ferocacti, haworthias, pelargoniums, pachypodiums etc. In her greenhouse there are various microclimates that allow her to grow such lovely succulents and cacti: Euphorbia francoisii, E. baioensis n.n., E. stellata, E. capsaintmariensis, Othonna euphorbioides, Haworthia maughanii, Discocactus horstii, Drimiopsis kirkii, Astrophytum ornatum var. and Pachypodium namaquanum.

The right soil mix is the secret for growing plants successfully, and Madelyn adapts the soil in the different pots to her way of watering. She uses a basic soil mix (with more or less drainage to suit the plant). She waters her euphorbias once a week and she treats all her other plants the same. Weekly, during the growing season, she feeds her plants ¼ strength fertilizer (10-10-5). In addition, Liqua-Nox®, a wetting agent, is used to make the water wetter.

Since 1970, Madelyn has been taking three or four trips a year to Joshua National Park where she can observe growth changes in plants on a certain plot of land. Too, she is concerned with the decreasing number of California poppies in habitat and she reseeds whenever possible.

CSSA Notes

The CSSA Convention is to be held in Albuquerque, New Mexico, May 31 through June 5, 1981, at the University of New Mexico Campus. Registration fee will be $25.00 per person and approximate cost per person (baring inflation) for the Convention (minus transportation) is 150.00 dollars.

President Kitty Sabo appointed Henry Varney to be chairperson of the CSSA Show for 1981.

Beverly Kirkegaard, a member of the San Diego Cactus & Succulent Society, was appointed to fill the vacancy of CSSA Recording Secretary.

The CSSA Nominating Committee has chosen the following slate of officiers and board members for the upcoming election:

President	Kitty Sabo (incumbent)
Vice President	Dr. Leroy Phelps (Incumbent)
Recording Secretary	Beverly Kirkegaard (SDCSS)
Treasurer	Virginia Shambeau (Incumbent)
Directors	Dr. Lyman Benson (Incumbent)
	W. Hubert Earle (Incumbent)
	Gary Lyons (Incumbent)

Two additional nominations (Seymour Linden, President of Sunset Cactus & Succulent Society and Michael Hearst, President of Orange County Cactus & Succulent Society) were made from the floor for Director.

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Special Announcements

San Diego Wild Animal Park '1980 Green Thumb Show' schedule.

August 23-24 San Diego County Dahlia Society

Zoological Society of San Diego 1980 'Botanical Members Night' at the Wild Animal Park.

September 3 & 10, 1980, Fall Botanical Tour - Jim Gibbons

SUCCULENT SAFARI

SUCCULENTS

EVERYWHERE

BLOOMING SUCCULENTS

So many attired, gorgeously, in raiment of gray to purple which is poignantly reminiscent of our beloved desert with its wealth of unusual flora.

Some green ones, too; perhaps due, in part, to type of culture, area of growing, controlled climatic condition, etc.

Recently, I had the soul-filling pleasure of gardening for one whole day. That a rare treat these days with a total change of life-style for lil ole JR.

Weed pulling was really the main objective-at least for one small while-. However, as is the case in many projects, it turned out to be only a mild side effect. Of course you have already guessed. Those perfectly adorable small blooming things soon took all the pain out of that totally uninteresting chore.

Like the so called belly flowers of the desert areas, the small succulents, to be fully appreciated, need more than a casual glance from five or six- or more-feet above their placement whether in pots or in the garden plot.

Can you not visualize that groaning knee position with one grubby fist full of nasty old weeds, the other doing-perhaps not too gracefully; the old balancing act due no doubt to over-zealous reaching when, suddenly, ones nose is within three inches of the very best Morgan's Pink one has ever been able to grow? One source of reference says it is Crassula mesembryantheopsis x C. falcata, but who other than the expert's expert cares beyond those lovely gray, somewhat triangular leaves wedged so tightly and the fragrant rosy-salmon flowers with their delicate yellow anthers????

While foliage is, many times over, sufficient in plants peculiar to that sort of fine array, the blooming small ones create a lilting song in the heart of the beholder and bring a thankful tear to the eye. And especially so if the beholder is also the grower.

You are, I'M sure, quite well acquainted with that perky little "calico hearts" Adromischus maculatus-help, fellows, I'm not recalling the Botanical-which literally blooms its head off for weeks and weeks and weeks. Weathers the elements well, too, continuing to bloom.

Then, there is C. orbicularis, that graceful captivator, making like an angel with its delicate white flowers, filling a basket so pleasingly. Ever so light fragrance from flowers, too.

And those-so-close-to-my-heart aloes. Some, large and handsomely marked; others, like A. descoingsii barely 1½ inches in diameter waving its etheral wand of tiny whitish flowerets in a gentle breeze. If you havn't this darling, go right out and fabricate a reason for the purchase of same.
It really doesn't hurt to have two birthdays each year.

If you are not so well acquainted with the aloes you might peruse the delightful books which are a part of our library in the ever so capable hands of Edith Werner and her lovely assistants.

A personal favorite in the small blooming range is C. barbata with its white -fringed green leaves which form clustering rosettes totally pleasing to the eye. This precious is from the dry Karroo, and is Monocarpic which means that after enjoying its lovely bloom stock, you will have the double reward of watching the new growth around the base mature easily into new plants with subsequent blooming again. This is always welcome to those of us who enjoy growing from seed and tiny offsets.

The kalanchoes are still holding forth with such variety of color and shape of floweret. My Kalanchoe fedtschenkoi is exactly like the sunset around Mt. Signal when we have one of those mauve to rose end of the day spectaculars. One of our native artists, Myrl Hoytt of Holtville captures these shadings in her Desert Scenes.

From down Mexico way we have some very beautiful as well as very different succulents which are all showing their colorful array of bloom, too. The echeverias seem intent on outdoing each other with their generous display; some varieties offer a veritable bouquet of an inflorescence which is, indeed, a joy to behold.

And the pachyphytums are running a good race, too, with the bell-shaped flowers always providing a special surprise to those who take the time to observe them closely.

Because of an unfortunate mix-up at the U.S. Post Office Succulent Safari, written by Julianne "Granny Annie" Rice, could not be entered into the March 1974, issue of Espinas y Flores.

At one time she was one of our more active members (writing articles and helping at the Del Mar Plant Show).

And, occaisonally, she would plant cacti in her old discarded gardening shoes.

On July 26, 1978, Julianne vanished from a friend's San Diego apartment, and recently she was to have received a sizable legacy. Private investigators, police and psychics have been called in on the search but they have failed to find any trace of her (Golden, 1980).

Reference cited

Golden, Arthur W. May 4, 1980. Where's Grannie Annie. The San Diego Union, Page B-1,16 and 17.

There is Reason Behind it All

Dr. Ronald E. Monroe

Many years ago, a group of scientists set the framework for the harmonious use of scientific nomenclature. Today, we know these rules as the International Rules for Botanical Nomenclature (the zoologists have their rules, too).

Because common names are useless, scientific binomial nomenclature using either two dead languages is required -- Latin or ancient Greek prefixes or suffixes or by "Latinizing" a popular name, term or location.

According to the rules, all generic names must be capitalized while species, subspecies, variety or form names must not be capitalized. Too, they must be underscored or italicized to set them apart from regular text.

Other scientific names such as orders, classes or families must be capitalized, but not underscored or italicized. Onc common error is the belief that if a plant is named after some person, the species is capitalized. This, of course, is not true. For example, the correct way to depict one cactus is as follows:

Parodia maasii v. carmargensis f. castanea

Another point of importance is to give credit to the person(s) who originally described the organism. Thus, the name of the person responsible follows the scientific name:

Parodia maasii v. carmargensis f. castanea (Ritter) Krainz

The above information tells us that Ritter first named the plant, but he put it into the wrong genus or the wrong variety or form; thus, his name goes between parentheses. The last name, Krainz, indicates that he recognized Ritter's error and formed a novo combinatium (= he made a change).

However, the way systematists change names at the drop of a hat would imply that there could be a huge number of names between the parentheses, and, of course, such has occurred. Unfortunately, taxonomy is not a very exact science. Frequent name changes may reflect on new well-founded morphological or physiological data or they may reflect on no more than ignorant, stubborn belief (sans reasoning).

Therefore, it's a real pity that well-meaning scientists set down excellent rules for the harmonious use of scientific nomenclature, but could do nothing for the science itself. For that reason, we will always be plagued with name changes, and we must in all fairness to the Rules, take such changes as normal and in stride and with a grain or two of aspirin, and it may even drive one to drink! For example:

Several years ago, A. Lau sent some rebutias to Europe and two of these plants were identified with his field numbers, LAU-401 and LAU-405. These plants were then distributed in the United States as Rebutia narvaecense. Later, John Donald changed the name to Rebutia albopectinata based upon a black and white photo of the type plant by W. Rausch. Dr. Donald soon realized his error and decided to change the name again by using a provisional

name, Rebutia pseudoheliosa nom. prov. Some years later, he changed the names again:

LAU-401 to Rebutia heliosa v. condorensis
LAU-405 to Rebutia heliosa v. cajasensis

Too, another plant, widely distributed by K. Knize as Rebutia solisioides (KK-852) is identical to Rebutia heliosa v. condorensis.

Because the above plant was not the true Rebutia narvaecense, Lloyd Brinson brought a cutting of the "true" R. narvaecense from England (LAU-329A), mass produced it and ISI widely distributed it, beautiful pink flower and all! Later, K. Knize exported a beautiful plant to the U.S. as Rebutia espinosae (KK-1518). Dr. Donald immediately realized that this plant was the "true" Rebutia narvaecense, and he renamed the other as Rebutia perplexa -- and that's exactly what it all is, perplexing!

But, our sanity aside, there is some reason behind the changes, and they were all made according to the Rules!

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News of Interest

We welcome this month the following new members:

Gail Clarke, San Diego
Sandy Kimmons, San Diego
Randy W. Light, San Diego
Lynne M. DeGooyer, La Jolla
Nancy Kelly, Imperial Beach
James Dreher, Imperial Beach
Karl-Heinz Zanker, San Diego
Eleanor Brown, El Paso, Texas

A reminder that the following members have signed up to provide refreshments for the August meeting:

Jackie Warne, Elizabeth Glover, Naomi Ray Lange, Wilna Johnson, Trudy Hart, Helen Brinkley, Joan Fleer, John C. Ronske, Amna Cornett, Del Cover, John Pasek, and Harriet Sopp.

Several of our members recieved awards at the Fifteenth Annual Show, "Cactusphere", presented by the Cactus and Succulent Society of America, Inc., and below is a partial listing of awards presented at that exhibit:

Michael Buckner	Best Commercial Exhibit
"	CSSA Journal's Award for Excellence
"	Best Succulent in Show
Henry Varney	Best Echeveria in Show

A lovely three bedroom and two bath house on 3/4 th acre (landscaped with numerous cacti and succulents) is for sale in prestigious La Mesa. Interested persons should contact Mrs. Anne Whitman (Ph. 465-1053).

----------Deadline for the next issue is August 27----------

San Diego Cactus & Succulent Society

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S.D. Botanical Garden Foundation -
S.D. Floral Association - Verna Pasek

The San Diego Cactus & Succulent Society is open to all persons interested in growing cacti, other succulents, and exotic plants. Meetings are held the second Saturday of each month at 1:30 pm in Room 101, Casa del Prado, Balboa Park. Board of Directors meetings are held after the general meetings. Annual dues are $7.00 per family. Single copies of Espinas y Flores are 60¢.

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