

MAMMILLARIA THORNBERI

Espinas y Flores

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

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June, 1977.

JUNE MEETING DATE: Saturday, June 11th.

PROGRAM:

"CACTI HABITATS IN CENTRAL MEXICO"

By:
 Joan Johnson

This month's program, which encompasses the Johnsons' trips to Barranca de Venados and the Valle de Tehuacan, should provide an exciting and fascinating experience for all of us.

Joan has been growing succulents for 26 years, and cacti for 17. Her special interests are the Mexican globular cacti and caudiciforms. She has been a long-time member of the Mexican Cactus & Succulent Society, and we have been fortunate in having Joan as one of our members for the past 4 years.

CACTUS-OF-THE-MONTH

MEXICAN MONOTYPES.

SUCCULENT-OF-THE-MONTH

ANACAMPSEROS
 Family: PORTULACACEAE.

DEADLINE FOR JULY ISSUE: June 21st, 1977 - Please!

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CACTUS-OF-THE-MONTH

Mexican monotypes

George E. Radwin

These monotypic groups (the term refers to the presence of only a single species in each genus) all are found in northern or central Mexico. There has been considerable debate, in each case, as to their distinctness and also as to their affinities. Certainly they all show broadly similar stem morphology. Other species closely related to one or more of these genera are Ariocarpus, Lophophora, Pelecypora, and Normanbokea.

Aztekium ritteri is a strange looking plant native to the Sierra Madre Oriental, Nuevo Leon, Mexico. The small, green, wrinkled body bears tiny whitish flowers from its depressed apex during summer months. Culture of A. ritteri is notoriously difficult and this is not doubt related to the very specialized habitat to which the species has become adapted in the course of its evolution. It lives on crumbling limestone cliffs within steep canyons. In pot culture it benefits from the presence of gypsum in the soil mixture and must not be watered in the winter. It is generally thought to be most closely related to Strombocactus disciformis (similar seed structure, vegetative habit, and habitat).

Encephalocarpus strobiliformis is another singular species from northern and northeastern Mexico. The name is derived from Encephalocarpus (fruit in head, or apex), strobiliformis (formed like a pine cone). A native of the Mexican state of Tamaulipas, E. strobiliformis has a stem covered with numerous, incurved, scale-like tubercles, keeled on the back, scaly, and closely appressed to each other, thus forming a reasonable imitation of a pine cone. The two inch plant is grayish green and each tubercle is tipped with an areole containing wool and tiny spines. The inch broad violet flowers arise from the plant apex. Culture requires a light rich soil and considerable light and heat, as well as generous watering during the warmer months of the year.

Leuchtenbergia principis is an uncommon monotypic cactus species indigenous to a fairly large region of central Mexico (states of San Luis Potosi, Guanajuato, Zacatecas, and Coahuila). Although growing to rather large size in old age (up to 20 inches tall) it is generally smaller. The stem consists of a cylindrical core bearing numerous long, thin, three sided tubercles, each tipped by long, thin, papery spines. There is a simple or branched taproot. Flowers are comparatively large and yellow, and arise from areoles on young tubercles at the apex of the plant.

Obregonia denegrii is a monotype from the Mexican state of Tamaulipas. Its affinities continue to be discussed. Suggestions have related it to Ariocarpus, Strombocactus, and Lophophora. The stem is generally solitary and subglobose, with a flattened top and spirally arranged triangular tubercles, each with short, curly spines at its tip. Yellow, medium-sized blooms arise from the youngest apical tubercles. The roots are large and fusiform. Culture requires a soil rich in lime, and considerable heat, though not necessarily direct sunlight.

Strombocactus disciformis is the only true Strombocactus and is found in the extremely dry "badlands" area north of Cadareyta, Queretaro, Mexico. It lives on a substrate of low, deteriorating shale ridges and on the banks of dry washes. The stem is low, globose, and more or less flat and is generally spineless when mature. The blue or gray-green rhomboid tubercles are small and arranged in a spiral pattern. Flowers are white or whitish yellow and small and arise from the younger apical tubercles. Culture requires a light soil with a high calcium content.

(Cont'd.)

- References: Anderson, E.F., 1968, A systematic study of Obregonia. J. Cact. Succ. Soc. U.S. 40(3): 101-107.
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- Glass, G., 1964, Pelecypora-Encephalocarpus. J. Cact. Succ. Soc. U.S. 36(6): 159-161.
- _____, 1966, The monotypes, pt. I. J. Cact. Succ. Soc. U.S. 38(4): 111, 138-139.
- Marshall, W.T. & T.M. Bock, 1941, Cactaceae. Abbey Garden Press, Pasadena, CA., 220 pp.

SUCCULENT OF THE MONTH FOR JUNE.

Madelyn Lee

ANACAMPSEROS

Family: PORTULACACEAE.

The fifty-nine species of this interesting succulent family originate mainly in South West, Central, and East Africa. The species comes from Australia. The small plants grow in sand-filled depressions in limestone rocks, or in gravel 'pons' in bush country. A good part of the time they are covered with sand, and only when a branch elongates to flower can they be seen. The flowers are white, pink, or carmine red.

The genus is divided into four sections: AVIONA, ANACAMPSEROS, TUBEROSAE, and ROSULATAE.

The most species occur in the section ANACAMPSEROS. The plants have thickened roots and fat fleshy leaves. They are generally rosette shaped, and offset profusely to form mats. The leaves are often covered with fine hairs, or have bristly hairs in the leaf axils. Plants in this section like rich, sandy soil and good light, but not full sun. They should be kept moist in summer and a little dry in winter.

The plants in this section are not the easiest to grow. Keep them in as small a pot as possible. A very porous soil is necessary. Water lightly in summer, and just enough in winter so the roots don't die back. As much light as possible and greenhouse conditions are definitely recommended.

The section TUBEROSAE has only one species: A. AUSTRALIANA. As the name implies, this plant is from Australia. One of the few succulent plants from this country. It has a large subterranean tuber, and such small leaves they are almost invisible.

The last section, ROSULATAE, also has only one species, A. DIELSIANA. This small rosette shaped plant is usually covered with fine hair when young.

Let's see how many species of Anacampseros we have in the San Diego Club. Bring your plants to the next meeting.

THE INTERNATIONAL TRADE IN ENDANGERED
SPECIES OF WILD FAUNA AND FLORA

-- Dr. Ronald E. Monroe

In February and March of 1973, the Convention on International Trade in Endangered Species of Wildlife and Flora was signed in Washington, D. C. This was the culmination of almost ten years of effort, headed primarily by the International Union for Conservation of Nature and Natural Resources. On July 1, 1975, the Convention came into effect between the first ten parties which ratified it. Currently 34 countries are parties to the Convention.

The "proposed implementation" of the Convention was published in 1976 (Federal Register, Vol. 41, No. 117 -- Wednesday, June 16), and a complete list of endangered and threatened species of plants was published in the same issue under "Part IV." Hearings were held, and, finally, the implementation of the Convention was published in 1977 (Federal Register, Vol. 42, No. 35 -- Tuesday, February 22) and went into effect on May 23, 1977.

There are three appendices to the Convention: Appendix I contains the names of those species that are threatened with extinction; Appendix II contains species which, although not necessarily presently threatened with extinction, may become so, or if they are similar or "look like" an endangered species in Appendix I; Appendix III contains species that individual countries have identified as being subject to conservation regulation within its own jurisdiction.

According to the Register, 372 public comments were received in response to the proposed rulemaking. Of these comments, 239 concerned plants.

Specifically, these regulations do not effect the common collector at all unless he wishes to import or export succulent plants (most of these are on Appendix II). To import, export or re-export any species (or seed) listed on Appendix I, an import permit will be required as well as an export permit from the country of origin. Appendix II species (or seed) are under less strenuous rules with only an export permit required of the country of origin; in most cases the trade will require a certificate only. Appendix III species (or seed) requirements are similar to those of Appendix II species requirements. If the country of origin is not a member of the Convention, then the following is required: 1. A document from an official of the country responsible for authorizing the export of the plants, 2. Specify the species and give the numbers of plants (or seed) covered, and 3. Contain the following statement --

I, _____, hereby certify that
(Signing Official)
the shipment of plants covered by this document is in
accordance with the laws of _____, will not be
(Country)
detrimental to the survival of the species in the wild, and,
if living, will be transported in a manner which will minimize
the risk of injury, damage to health, or cruel treatment.

(Cont'd.)

Thus, most individual collectors who order plants will be under no particular duress -- the proof will be in the hands of the exporting party. However, any individual who desires to export a plant from the U. S. will need a permit or certificate, and this is obtained by sending for Form 3-200, and instructions, to the Department of the Interior, U. S. Fish and Wildlife Service, Federal Wildlife Permit Office, Washington, D. C. 20240.

The permit is easily understandable including the necessary attachments such as the species' scientific name, common name, number, activity, size, form (root, seedling, etc.), how transported, container type, origin of species, etc. Such permits may be good for six months and if there is to be an unusually high amount of trade of cultivated species, a "blanket permit" may be issued.

Where most collectors might be deeply involved is in regards to a law yet to come: an amendment to the Endangered Species Act of 1973 (Public Law 93-205; 93rd Congress, S. 1983). This Act is intended to regulate endangered and threatened species of plants in interstate trade. When the amendments are published in the Federal Register, the law will go into effect within 30 days (the members of this Society will be kept informed of the impact of this law when the information becomes available).

In summary, then, it would appear that the main burden will be on the "nursery" rather than the "individual." Hopefully, "fly-by-night" nurseries which make their living by direct import (or export) for immediate sale to the collector will go out of business. Serious nurserymen who import for propagation should be allowed to continue their operations as in the past -- these are the establishments which mean so much to the individual collector and which also mean so much to conservation: through cultivation they can protect rare and endangered plants from extinction.

THE SPRING PLANT SALE AT QUAIL
BOTANICAL GARDENS.

Audrey Johnson

This year's plant sale at the Gardens was as big a success as ever - perhaps more so, because we had just about perfect weather in which to enjoy the proceedings! (And they said: it might rain!!)

Heartiest thanks are due to all the members of the various Garden Clubs, and of San Diego and Palomar C. & S. Societies, for all the hard work and effort they put into making this day such a success. As for all our visitors, they dashed from plants to boutiques to delicious gourmet refreshments and foods with almost equal gusto! After all this (if they had any energy left over) they took a stroll through our beautiful Gardens.

We have recently learned that, from the proceeds of the sale, expenditures for the general upkeep of the Gardens is assured for the rest of this year, which makes it all worthwhile.

Once again, sincerest thanks to everyone who participated in any way in this worthy project. (Our next big plant sale will be the Christmas one, but you'll be hearing from me about that later.)

On a recent field trip of the California Native Plant Society, it was discovered that, during construction of "improvements" at Border Field State Park, a large portion of one of the populations of *Dudleya attenuata* ssp. *orcuttii* was "bulldozed" out of existence. *Dudleya attenuata* ssp. *orcuttii* is known in the U.S. only from two small populations, both of which are within the confines of Border Field State Park. This "accidental" bulldozing occurred despite previous efforts by local botanist, Mitch Beauchamp, to make park administrators aware of the plant's presence there, its rare and endangered status, and the botanical significance of the area as the type locality.

Although this act of destruction appears to have been unintentional on the part of State Park officials, their apologies are of little help after the fact. What remains to be done now is for our society (through Dr. Monroe and the Conservation Committee), together with other interested organizations like the Native Plant Society, to make the State Park administrators aware that this type of mismanagement can not be tolerated. If such botanical incompetence is not corrected, other rare and endangered species (i.e. *Agave shawii* and *Berberocactus emoryi*), occurring within the park boundaries, could suffer similar fates at the hands of their "protectors".

A further proposal has been suggested by Mr. Beauchamp that, rather than hydro-seeding the grounds around the new facilities, the area be landscaped with natives, including *Berberocactus*, *Agave shawii*, *Ferocactus viridescens*, and the remaining *Dudleya attenuata* ssp. *orcuttii* threatened by the construction. All of these plants (except the *Dudleya*) are readily available from nearby localities, outside of the park, slated for future development. With the support of the two societies, and a little volunteer effort, such a plan certainly sounds feasible, and worth pursuing.

Note from: Ye Lady Ed.

While typing your article, Jim, I was very much reminded of our own efforts, here in Escondido, to conserve the native plants of our hillsides. Very early on, I discovered the native dudleyas, and enthusiastically we managed to move a number of them to similar, but more protected, areas among our own boulders. They responded to their new treatment and locality beyond our wildest dreams, and quite quickly became beautiful silvery-white accents between the agaves and aloes in our natural cactus garden up on the hillside behind the house.

As many of you may know (from reading my articles), we too are threatened with (and fighting against) construction and development problems, and one day recently, just in case, Geoff and I made a further plant-searching trip to the area where they are threatening to build! This time we were very successful, and yet another 20 or so plants of *dudleya* were soon happy in their new homes. Quite apart from our desire to protect these plants from marauding bulldozers, children and other destructive elements, we are hoping to bring plants to the Club meetings for any interested member who might like to start a colony of his own in his particular area. This should ensure still further, we feel, their conservation and preservation!

(Cont'd.)

Is it possible, do you think, Jim, that there are other gardeners and conservationists, such as ourselves, who (in the locality of Border Field State Park) are growing and propagating *Dudleya attenuata* ssp. *orcuttii* in the same way, and for the same reasons? It might be worth trying to find out.

P.S. In my usual vague fashion, I have been referring to "our local dudleya" - the fact is (as you've probably guessed) we are not too sure of its true name. At the moment our plants are slightly past their most beautiful stage, but I think we'll have to "pot" one and bring it along to the meeting for Dr. Monroe's, and your own, identification - if you will be so kind! A.J.

THAT COLOURFUL SUCCULENT - THE GERANIUM. Audrey Johnson

With determination, Geoff and I managed to fit in a visit to the Geranium Show, in Balboa Park, last week, and we found it to be, as usual, a completely fascinating and beautiful display. In fact, after visiting with several old friends from Palomar and San Diego C. & S. Societies, and admiring their expertise in this new and different field, we returned to Escondido determined to extend the varieties and areas in our own collection of these good-natured and ever-blooming plants!

Like so many of my other landscapings of cacti and succulents, my plantings of geraniums (especially the vining varieties) are on a large scale on our hillside. It started with my planting, here and there, the various cuttings given to me by generous friends, and we have been most pleasantly surprised by the results over the past 4 years.

One particularly pretty, pink, vining geranium has been in constant bloom now for more than three years, with very little help from myself. It is true that I do clamber down once in awhile to pick off the dead flowers (for a little encouragement), but, just lately, owing to other commitments, somehow this doesn't happen very often.

As many of you may know, Geoff is even more vague than I on the technicalities of growing our very varied selection of plants, but, last year, he took a great fancy to the many colourful varieties of geraniums, with their easy growing habits. Later he began to tuck in a cutting, here and there, as he climbed over the rocks to weed and tidy up. The results, I must admit, have been most gratifying! We now have extremely colourful areas of geraniums all over the hillside which even rival our many varieties of ice plant in colour and performance.

Actually, I might say that, during these past dry years, our geraniums have flourished, grown and bloomed better than many of our varieties of ice plant. All of our geraniums have performed remarkably well, despite hot spells and very drying winds in all seasons. Some areas of ice plant, on the other hand, have recently looked slightly "tatty", even in Springtime and after help from the sprinklers. Surely this is the sign of a truly good succulent! And so I would say to those of you with areas such as ours, collect and plant all and any cuttings of geraniums upon which you can lay your hands, and then sit back and await glorious splashes of colour all year round. Despite very poor soil, and sometimes adverse conditions, we have done it, so I'm sure you will have equally good results, or better!:

THE MONTHLY TRIBULATIONS OF YOUR EDITORS!

Recently it struck me that it was about time that I publicly thanked my spouse and co-editor, Geoff, for his invaluable assistance in putting together "Espinass y Flores", and getting it out to you each month. Incidentally, we would both like to thank those of you who have been kind enough to encourage us in our efforts!

Quite honestly, by the time I have written my own pieces, gathered together the various articles of our contributors, sorted these out, and typed the whole thing, I am apt to be a little (?) discouraged!! It is then that Geoff nobly steps in - scissors, glue and correcting fluid (just in case) in hand, and meticulously proceeds to piece the whole thing together. Finally, at long last, we are ready for the printers - hooray!

Getting back those beautifully clean piles of printed matter is always a thrill - except that, then it is time to join together for the final phase, which, to me, is always the hardest work of the whole project...

Those beautiful piles of paper have to be:-

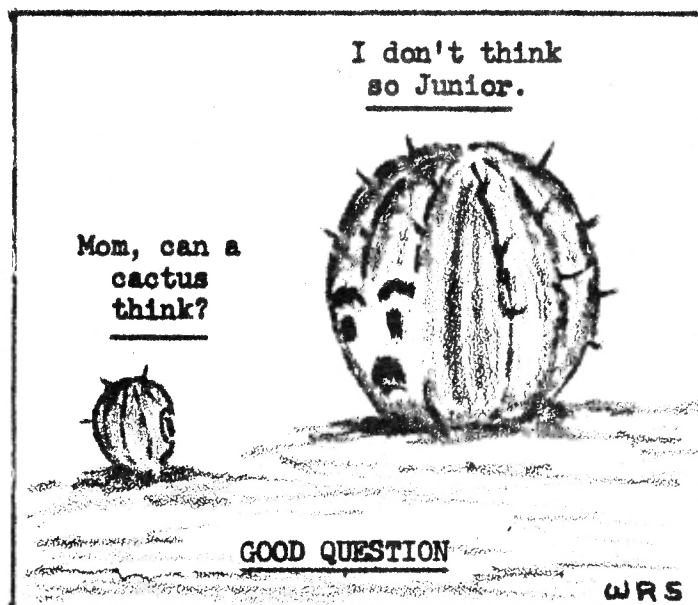
- (1) correlated and stapled together.
- (2) folded and stapled again.
- (3) stamped with my stamp.
- (4) stamped with the official stamp.
- (5) labelled with names and addresses. (With devoted help from Doris Rake (thanks a million, Doris) we are getting this problem licked, but there are always changes of address, new members and so forth, and it can be quite a hassle!)

The finished product is then sorted into: local (Escondido), out-of-town (the vast majority), and out-of-the-country (just a few). And so, it's: Off to the mail, thankfully! Each time, I, for one, breathe a fervent prayer that yet another fairly presentable copy of the bulletin is on its way to all of you.

Anyhow, we intend to do our best to keep up the good (we hope) work - with a little help from our friendly contributors, who, we trust, will get those articles in well on time, and keep them coming! You see, the working hours of our printing firm here in Escondido are not always quite as elastic as those of the Johnsons.....

T.T.F.N.

A.J. (Ye Lady Ed.)



CONVENTION EXPERIENCES

Julianne Rice

This, my dear friends, is a mere sampling of Convention experiences; the scientific part will come to you later!

Our special conclave is not only a getting together of old friends from all over the world, but a wonderful time of being brought up-to-date as to changes in classification, etc., slides and descriptive dissertation about new species, having the great pleasure of meeting the good people responsible for bringing some of their beautiful native flora to us in marvellous colour slide programs, and, of course, the privilege of visiting new, to us, nurseries with "impossible to resist" plants for sale!

I shall not list our members present in Tucson, but will ask them to wear identifying ribbons so that you may ask them how they enjoyed the Convention, etc. And, perhaps, be a wee bit envious because you didn't take time to go!

Personally, luck travelled with me in the nature of winning the centerpiece at Monday night banquet, which I shall fashion a display around for the Open House on June 4th and 5th. - Hope you have seen it!

Barbara Jeppe, who gave us a wonderful trip via slides to her native land, had a collection of her paintings on display and for sale, and one of my finest recollections of this Convention will always remain - that of Frank Harwood reverently holding an original plate of one of the aloes included in her marvellous book.

Plant People do have such SOUL!

And, I do thank each and every one of you who helped with the Open House. You are truly beautiful people, and I do love you all.

In due time there will be a fully written account of the Convention - we promise!

About: "THIS AND THAT..."

Ye Lady Ed.

This month "AND THE OTHER" seems to have divided itself into separate articles, which you will find throughout the bulletin. My "THIS AND THAT" is concerned mainly with thank-yous to the various Club members who have participated in refreshments and plant sales.

REGALEMENT

We would like to thank the following members who helped provide us with the usual delightful tea and coffee "break" last month:

Harriet Sopp
Dorothy Ronske
C.F. Benbow

Perlso Lewis
Mary Birchell
Verna M. Pasek

PLANT SALES

Our thanks are due to the following people for their contributions to the Plant Sales Table at the May meeting:

Joann Fleer

and

Perlso Lewis.

SAN DIEGO CACTUS & SUCCULENT SOCIETY OFFICERS

PRESIDENT: H. Warren Buckner, 1744 Engelwood Dr., Lemon Grove,
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 Two year term: Shirley Berry and Julianne Rice
 Three year term: Joan Johnson and Ricky Latimer

COMMITTEES FOR 1977

ACTIVITIES: Martin Mooney
 EDUCATION: Madelyn Lee - Succulents.
 Dr. George E Radwin - Cacti (Research).
 Tony D'Atillio - Cacti.

EXHIBITS:

Fair CACTI - Tom & Marcia Hamecher
 SUCCULENTS - Rick Latimer and Betty Athy.
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Open House Julianne Rice

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 PROGRAMS: Tom Hamecher
 PUBLICATION: Audrey and Geoff Johnson (Tel No. 745-5773)
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 REGALEMENT: May Andrews, Pat Elkinton, Nancy Hulshizer and
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 San Diego Floral Association - Verna Pasek
 Quail Botanical Gardens - Audrey Johnson
 San Diego Park Desert Garden -

MEMBERSHIP

The San Diego Cactus & Succulent Society is open to all persons interested in growing Cacti, Other Succulents, and Exotic Plants.

Dues: \$5.00 annually, due in December of each year.
 Single copy of Espinas y Flores: \$0.50.

MEETINGS:

The second Saturday of each month, 1.30 p.m., Room 101, Casa del Prado, Balboa Park, unless otherwise indicated. Board convenes after the general meeting.