

# Espinas y Flores

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

## February Meeting

Saturday, February 13, 1982

1:30 pm

Casa del Prado, Room 101, Balboa Park

Rick Latimer will give a slide program titled:

"Some Succulent Collections in Southern Germany"

Rick spent a month in autumn of 1981 traveling through Europe. His pictures will also cover a travelogue of his trip in Germany. Come and enjoy Heidelberg Gardens with a few other surprises.

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NEWS OF INTEREST

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There are two new members for this month-- California Epi Center- Vista, California  
Paul and Lottie Shraer - San Diego

Bragging Table Winners for January were:

- 1st - Floyd Gable for his Crassula argentea
- 2nd - Barbara Jolly for her Euphorbia decaryi
- 3rd - Bob Kent for his Euphorbia suzannae crest

NOTES FROM THE BOARD:

Board approved having our picnic on July 10 at Live Oak Park in Fallbrook.  
 New book purchase approved - Succulents and Flora of Southern Africa by  
 Doreen Court

NOTICE - - Those members who did not turn in an "Interest Finder" distributed at our January meeting, please fill one out at the February meeting and turn it in. The results are tabulated and given out at our March meeting. We need your input.  
 Shirley Berry

Commencing 30 January, each Saturday from 10:30 till noon there will be a gardening class held free in Casa Del Prado, Room 104. Come learn more about gardening.

On 29 and 30 May, Botanical is holding a flower sale. They suggest you plant anything that grows now and have it ready to donate for the sale.

Feb. 6 & 7 San Diego Camellia Society Show Sat: 1:pm - 5pm Sun: 10am to 5 pm  
 Feb 27 & 28 San Diego Orchid "Mini" Show Sat: 12 pm - 5 pm Sun: 10 am to 5 pm  
 E.B. Glover

Those members who have signed up to bring refreshments for February are:

Ralph M. Katz	Joan Fleer	Gail Clarke
Janie Miller	Susan Clements	Rudy Lime
Charles & Joanne Clark	Diane Stolze	Jennie Wisley
Jean Parks	Mary Aubuchon	Linda Erickson

Also special thanks to Nita Cotten who always helps in the kitchen

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Deadline for articles for the March Issue - - March 1, 1982

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Some articles - One Page - Observations, poems, recipes containing Cactus or Succulents - Anything concerning our hobby - for our news letter \*\*\*\*\*

## Cactus-of-the-Month

### Sclerocacti

Mark Donnell, M.D.

Sclerocactus - does the name sound familiar? If not, don't feel bad. With the exception of several recent articles in the Cactus and Succulent Journal, very little has been written about this rare genus. Most members of this family are on the endangered species list, they exist in remote and often inaccessible areas of the Southwest, and as a result, very few people have ever seen a Sclerocactus in its native habitat.

There are two primary species, Sclerocactus polyancistrus from our own Mojave Desert, and Sclerocactus whipplei from Northern Arizona/Utah/Southeastern Colorado. The former has no varieties or other species which live in the same vicinity, yet the latter exists in an area which contains multiple forms and varieties. Backeberg lists seven different Sclerocacti, and other authors have identified at least four more species, but many of these undoubtedly represent varieties rather than true species. For example, Backeberg's Sclerocactus havasupaiensis, found only in the Havasupai Canyon area of the Grand Canyon, is almost undoubtedly a variety of the Sclerocacti which grow along the banks of the Green and Colorado Rivers in Utah. Some authors have chosen to identify species primarily on the basis of flower color, yet in certain areas of Canyonlands National Park I have seen Sclerocacti in bloom with red, yellow, and white flowers, all within 1000 feet of each other.

Sclerocacti are rarely found in private collections because they almost always die when transplanted, and because they have been difficult to grow from seed. They are very attractive plants, round to cylindrical in shape, three to ten inches in diameter, with a characteristic long hooked central spine. The flowers are large and born at the apex, varying in color from yellow to white to red to purple. Sclerocacti bloom between April and July, depending on the climate, and are often very difficult to spot when not in bloom because they blend in so well with their environment. The plants form seed pods containing twenty to fifty large black kidney-shaped seeds which mature six to eight weeks after blooming. Sclerocacti grow at altitudes ranging from 2400 to 8000 feet, often in areas receiving heavy winter snowfall.

All in all, Sclerocacti are a fascinating and beautiful group of plants which provide quite a challenge to cultivate outside their native habitat.

**T**he tragedy of life  
is not so much what men suffer,  
but rather what they miss.

THOMAS CARLYLE

From Espinas y Flores - November Issue 1973

# SUCCULENT-OF-THE-MONTH

## Conophytum and Lithops

or

"cone plant" and "stone face"

by

Rick Latimer

Along with the Cactus, Stapelia, and Crassula family; the Mesembryanthemaceae make up the four major succulent families. The majority of the Mesembs are examples of leaf succulents, the only exceptions being the genera Brownanthus and Psilocaulon. The leaves on these plants are so small and weak, that they can not be considered storage organs for water. These genera are then considered to be only stem succulents. Some of the Mesembs are both leaf and stem succulents, such as the genera Hydrodea and Mesembryanthemum. Those species that are leaf succulents may have in their leaves a water content that can amount to more than 95% of their volume. Temperatures of over 160 °F on the surface of the soil, which would be fatal to most plants, are not uncommon in the habitats of many Mesemb species. Plants that give off alot of water would be protected against this deadly heat by the air conditioning arising from transpiration. The one catch is that there has to be a continuous water supply - a factor that is not present in most of the western half of the southern tip of Africa. The Mesembs store their water, so they have devices (some found in other succulent families as well) of their own for protection against the heat: bead-like water storage "crystals" to reflect away the light such as in Delosperma, waxy coverings to inhibit heat absorption such as in Dinteranthus, insulating hairs as with Trichodiadema, or even glands which secrete a sticky fluid which catches the sand blown on the skin as with Psammophora. The two genera Conophytum and Lithops employ their own methods for surviving the heat and drought (yearly or for years!).

The Mesembryanthemum family is first divided into two sub-families: Ruschioideae and Aptenioideae (the difference involves fruit structure). The Ruschioideae is divided into three tribes: Ruschieae, Apatesieae, and Carpobroteae. The Ruschieae is then divided into twenty-one sub-tribes. Two closely related sub-tribes are Lithopinae which includes Lithops, Schwantesia, Lapidaria, and Dinteranthus; and Conophytinae which includes Herreanthus, Oophytum, Berrisfordia, Conophytum, and Ophthalmophyllum. The genus Lithops is native to the southern portion of Africa, (but not near the east coast) especially near the Orange River. The genus Conophytum is native to the general area that the Lithops are, but only below (south) of the Orange River. Some species, particularly those which originate from the Transvaal and Orange Free State, grow in areas that have a relatively high annual rainfall (as much as 30 inches a year) such as L. lesliei; while other species such as L. otzeniana from Bushmanland, often receive less than 5 inches a year and are very sensitive to ex-

cess water.

The genus Conophytum consists of plants that are tiny spheres, dwarf cones, or slightly larger pear-shaped plants with the ends of the two united leaves having free tips. The surface of the skin may be beautifully pattered with dots or lines on some species or without markings on others. One group has a pale chalky coloring, while most are pale green with darker green ornamentation. Flowers may be any of the warm colors, from white through purple. The genus Lithops consists of plants with a narrower range of shapes: generally only conical, from short and flat to tall and thin. The tops of the leaves have a wide range of patterns: windowed (L. optica), windowed but bordered with teeth-like patterns (L. otzeniana), veined (L. lesliei), or even dotted (L. fulviceps). Plants bodies (tops and sides) are very colorful, mainly earthy colors such as umber, sienna, and ochre; but other colors as well such as moonstone (L. ruschiorum), tan (L. dorotheae), sepia (L. aucampiae "Karman"), slate (L. verruculosa), olive (L. helmutii), rust (L. karasmontana), magenta (L. optica f. rubra), or even violet (L. divergens v. amethystina). Lithops flowers are only white or yellow or white and yellow.

Both of these genera have plants (or heads if they clump) that largely consist of only two leaves (making them an unlikely candidate for grafting). The roots are important, of course, but they are usually dead during the dormant period. In the case of Lithops, the top surface of the leaves are windowed one way or another. The chlorophyll containing cells line the inner part of the leaves and thus for the most part are actually below ground level, (rather like mine shafts!). During drought, the plants shrink, are often pulled down into the soil, and then covered by the local soil. Lithops are easily grown provided their life cycle is understood. The old leaves begin to shrivel in the winter after the fall flowering. During this time they are not dormant. The inner new leaves are drawing their life from the old ones. No water is given until the old leaves are completely dried up in the spring. Plants may be watered until after they bloom in the fall, especially if they show signs of shrivelling. The Conophytums also bloom in the fall, but this is the beginning of their watering season, so they are the flip side of the same coin! The time to stop watering them is in the spring when the old leaves die, but remain in place, protecting the future generation of leaves through the drought. Since the plants look dead at this time, enthusiasts have to be careful not to throw them out! There are of course exceptions to the rules. Plant life cycles of both genera differ from plant to plant of a few weeks to months, so each plant has to be treated individually. Both genera prefer a soil mix consisting of coarse sand and gravel with only a small amount of humus. Most Lithops prefer a lot of light, while in general, the Conophytums prefer a small amount of shade.

#### REFERENCES:

Brian Fearn, Lithops.

Walther Haage, Cacti and Succulents.

H. Herre, The Genera of the Mesembryanthemaceae.

Hermann Jacobsen, A Handbook of Succulent Plants, V. III.

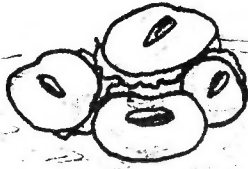
G. N. Nel, Lithops.

J. Riha & R. Subik, The Illustrated Encyclopedia of Cacti & Other Succulents.

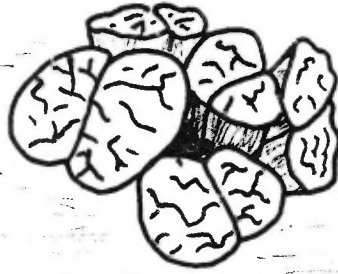
G. Schwantes, Flowering Stones and Mid-Day Flowers, (Dr. Schwantes devoted one fourth of his book to Conophytums!)

David L. Sprechman, Lithops.

Ed Storms, Growing the Mesembs.



Conophytum



Lithops

REMINDER!!! 1982 Dues - Please send/Hand Pre-Printed Check for \$7.00 to Joan Johnson



From Espinas y Flores - November Issue 1973

The Mojave Yucca, Yucca schidigera

by Larry W. Mitich

University of California, Davis

The genus Yucca (name of Indian origin, early misapplied; in reality belonging to Manihot or Cassava) consists of about 40 species native to the southeastern United States, Mexico and the West Indies. Four species are found in California, of which Y. brevifolia (Joshua Tree) is a grotesque and well known tree.

Yucca schidigera (from Latin for shaving or splinter, and used here in reference to the curled or shaving-like marginal fibers of the leaves) was described as new in 1871 by Ortgies who credited it to Roezl, an European collector, who had found it near San Diego in 1869. This name was long overlooked. Plants of this species seen by early botanical explorers were long thought to be a form of Y. baccata, a very different species. In 1896, C. S. Sargent (a famous director of the Arnold Arboretum) proposed the name Y. mohavensis, which has been generally used for this plant. However, Susan McKelvey (Yuccas of the Southwestern United States, Part I, pages 92-104, 1938) has clearly shown that Y. schidigera has to be accepted because it has priority.

The Mojave Yucca is an evergreen shrub 5 to 8 or occasionally to 15 ft. high; trunks one to several, often nearly 1 ft. in diameter, with lower portion devoid of old, dead, deflexed leaves; roots cord-like, usually less than 1/2 in. in diameter; offshoots common, thus some large colonies are in reality one plant. Leaves olive or yellow-green, rarely blue-glaucous, 2 to 3 ft. long, 1 to 2 in. wide, nearly straight, at first erect, later spreading or deflexed, tipped with a sharp spine, margins with thread-like or stringy fibers. Inflorescence a large terminal panicle often over 2 ft. long, by 1 ft. broad and containing

several hundred showy flowers. Flowers on pedicels up to 2 in. long; greenish-brown outside and creamy inside. Pollination is performed by the yucca moth which also lays its eggs in the ovary. The fruits are at first green and smooth, but at maturity are dull brown or tan and wrinkled, 2 1/2 to 3 1/2 in. long. Mature fruits have a slightly sweet flesh, which along with the seeds, is eaten by animals. Flowers from March to April; fruits mature in September, but may remain on the plants for several months. In germination the single cotyledon remains within the seed coat and a thread-like growth about 3/4 in. long is produced, at the end of which the fleshy primary root and several flattened leaves 1 to 2 in. long are soon formed.

Y. schidigera is found in abundance from southern Nevada and northwestern Arizona westward across the Mojave Desert and southward in the central and western portions of the Colorado Desert to northern Baja California. It is also in the cismontane portions of southern California from the vicinity of San Bernardino southward, and reaches the immediate coast from Oceanside southward in San Diego County. Over much of the Mojave Desert it is one of the most abundant woody plants at elevations of 3000 to 5000 ft., usually in association with Larrea divaricata (creosote bush), and is confined to well-drained slopes or flats in sandy to rocky situations. Probably because of the low average rainfall and the many seasons of great drough over much of its range, the Mojave Yucca does not bloom or set fruit excepting at intervals of several years. However, near the coast it flowers and fruits rather regularly.

On the Mojave Desert the plants of Y. schidigera ordinarily have olive-green or yellow-green leaves, particularly after a long dry period; near the coast the leaves are much greener. In Morongo Valley and westward to San Gorgonio Pass there is a geographic strain or subspecies with glaucous-blue



leaves scarcely distinguishable from those of Y. baccata, and which breeds true to color from seed.

Propagation and cultivation of the Mojave Yucca is easy if certain conditions are met. Seeds germinate readily when planted in sandy loam in outside seed beds or in flats in the fall or spring. Transplanting is not necessary until the end of the first season. Ordinarily the seedlings should be transferred to containers for a second year in the nursery and then planted out in their permanent places. In order to establish the plants, watering is essential the first season, but thereafter little or no irrigation is necessary. In cultivation plants sometimes die from a heart rot, apparently from overhead irrigation during the summer months, a practice to be avoided. There are no reports on transplanting the suckers or offshoots but it should be as successful as with Y. baccata which can be transplanted safely.

During World War II, the Bureau of Plant Industry investigated Y. schidigera along with other yuccas of the Southwest as a possible source of fiber but commercial production was not considered feasible.

#### WHO WILL SAVE THE CACTI ?????

SAYS G. L. Lucas -- Kew Gardens: "There's no doubt that all cactus species in the wild are endangered. Species disappear before we even know about them."

SAYS Elizabeth Lane -- Audubon Magazine: "Mercilessly uprooted by collectors, their habitat destroyed by proliferating subdivisions and by range clearing, many North American cacti have become severely depleted, and others are thought to be extinct. Conservationists have been slow in recognizing the threat. . .plants are not included in federal endangered species legislation-- and only now is the government taking a first step by compiling lists of threatened plants, including cacti. Only Arizona attempts full protection of its cacti.

"Shockingly remiss in facing up to the crisis is the 3,000 member Cactus & Succulent Society of America, recently chastised by the new Chairman of its Conservation Committee for having swept the conservation issue under the rug for the past forty years. The prevailing attitude has been that conservation is a good thing for everyone but the serious cactus collector."

From Espinas y Flores - November Issue 1973

## Cultural Information on Succulent Plants

Shirley Berry

Members of the Club have frequently asked if cultural requirements of the plants they buy at our Club could be made available to them. As you may well imagine this would take a tremendous amount of time (and therefore, money) on the part of the professional growers who supply our plants, the amateur grower who contribute plants for sale, and for the people who now give so much of their time (at the Dices's and Pasek's) for the benefit of the Club members.

I would like to explain what I do to learn more about the plants I buy in hopes it may benefit some who have problems in this direction. When I bring my new plants home they never get "put away" until I repot them in my own soil mix. Otherwise how could I use my watering regime on a soil with unknown porosity?

Then I start the research using my own library. One of the great problems is knowing when a plant is dormant. I find Edgar and Brian Lamb's five volume series of books entitled "Cacti and Other Succulents" of great help. The winter climate in Britain where the Lambs grow their plants, even considering their use of greenhouses, permits very few mistakes in culture without disastrous results. I refer to volume 5 first as it contains a complete index of all plants described in all of the five volumes. If I am not successful in finding the plant description there, I use the 50 year cumulative index to the American "Cactus and Succulent Journal". Since I do not own a complete set of the Journals, the references earlier than the last twenty five years are of no use to me. However, that still leaves plenty of information to work with.

Another excellent source, which was my first purchased book on the subject, rightly named "Succulents for the Amateur", edited by Scott Haselton, is a very slim book packed with information on succulents other than cacti. Still another excellent reference is "Cacti and Succulents" by Walther Haage, good for general cultural requirements and containing an interesting table showing the various flowering times of cacti throughout the year.

A book solely on cacti which I still enjoy using is "Cacti" by John Borg. His personal comments on the plants give you more than a scientific viewpoint at times.

The three volume set of Hermann Jacobsen on succulents is invaluable in its cultural directions, scope of materials, and hundreds of photographs of the plants other than cacti (better reference for culture than his newer "Lexicon").

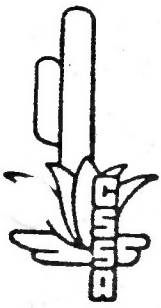
All of these books and far more are available in our wonderful Club library and they can be checked out by members. Do a little digging for information and more learning will result than if someone handed you the cultural directions on a piece of paper. Our Club provides the plants for you to buy and the books for you to read. Don't you think you should be able to carry on from there?

### From the San Diego Union - - Book Review

#### PRICKLY PEAR BREAD

1½ cups unbleached white flour	¼ cup butter	¼ cup prickly pear juice
1½ cups whole wheat flour	¼ cup honey	¼ cup orange juice
3 tsps baking powder	1 egg	½ cup milk
½ tsp salt	2 T grated orange rind	¼ tsp vanilla
1/8 tsp mace	3/4 cup prickly pear fruit peeled, seeded and cut up	1 cup peans

Mix flours, baking powder, salt and mace. In separate bowl, cream butter with honey, beat in egg. Add orange rind, prickly pear fruit and juice, orange juice, milk and vanilla. Add to dry ingredients, stirring only until blended. Fold in nuts. Place in greased 9-by-5 - inch loaf pan. Bake at 350 degrees for 1 hour or until done. FRUITS OF THE DESERT By Sandal English; Arizona daily Star; 175 pages \$8.



## WHAT THE CACTUS & SUCCULENT JOURNAL IS AND DOES FOR ITS SUBSCRIBING MEMBERS

The Journal, published since 1929, is the most important and finest magazine dealing with cactus and succulents in America, if not the whole world. As a subscribing member you will receive this fine bi-monthly Journal with world renown contributors featuring articles for the beginner, the connoisseur, as well as the scientific botanist. Such articles cover information on conservation, culture, identification of plants and descriptions of new species. As a service to the subscriber, information is included on where to buy plants from outstanding nurseries, as well as many other things of interest to the hobbyists.

Only subscribers to the Journal and their spouses are eligible to become active and associate members of the Cactus & Succulent Society of America, Inc. (CSSA)

## WHAT THE CACTUS & SUCCULENT SOCIETY OF AMERICA, INC., IS AND DOES FOR ITS ACTIVE MEMBERS.

CSSA began in 1929 as an association of amateur growers and nurserymen. Today it still publishes the Journal and has Affiliates in almost every state. As an active member of CSSA you will become associated with some of the top authorities in the world of cactus and succulents, people you have read about will be your fellow CSSA members. Each of you will have a membership card that will set you aside from those who are not active members. Only active members will receive a ballot for the annual election of Officers and Directors, and they will also receive the CSSA Newsletter telling of regular meetings and programs, exhibits, annual shows and biennial conventions. Information on all the doings of the CSSA Board as well as their annual financial statements will appear. News of the many fine affiliated clubs or societies is a regular feature of this newsletter, including their shows, programs, field trips, etc. Fellows of CSSA and Life members are automatically active CSSA members and will receive all the rights and privileges. Affiliated clubs and other applicants will receive their membership cards after verification of their subscription to the Journal. Memberships start as of January 1st, '82 and will run from January 1st to January 1st. New active members starting after July 1st should only send half the prescribed fee.

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( ) One year - \$21.00 Other Foreign

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I have subscribed to the Cactus & Succulent Journal and wish to become an active member of the Cactus & Succulent Society of America, Inc.

- ( ) One year - \$ 6.00 United States, Canada and Mexico
- ( ) One year - \$ 7.00 Other Foreign
- ( ) Associate member (Spouse) - \$1.00
- ( ) Life member - \$300.00 (as of 1982)

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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 Cents.

Editor  
Mary Aubuchon  
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