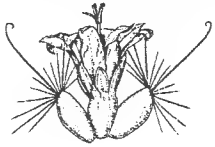


ESPINAS Y FLORES

NEWSLETTER OF THE SAN DIEGO CACTUS AND SUCCULENT SOCIETY, INC.
AFFILIATED WITH THE CACTUS AND SUCCULENT SOCIETY OF AMERICA
VOLUME 36, NUMBER 9, NO MEETING IN SEPTEMBER. CLUB FIELD TRIP ON SATURDAY, SEPTEMBER 8,
2001. SEE INSIDE FOR TRIP INFORMATION. THE MISSION OF SDCSS:
PROMOTE KNOWLEDGE, STUDY AND INTEREST IN CACTI AND SUCCULENT PLANTS, VISIT US AT SDCSS.COM.



WE'RE OFF!

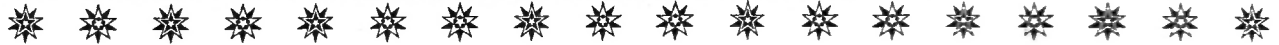
COPIAPOA LOVERS UNITE

A few years ago, Rudolph Schultz authored a book with Attila Kapitany on *Copiapoa* of Chile. Well, he is still very interested in the genus and proceeding with plans to publish the *Copiapoa Journals* (similar to the *Euphorbia Journals*) dealing with miscellaneous topics regarding this fantastic genus.

I recently spent a few days with him in the Bay area. He and I visited Ann Shein's Cactus nursery and helped her re-pot part of her wonderful collection of *Copiapoa*. She is 70+ years young and recently visited Chile herself. She loves her plants like children and rightly so, many were grown from seed more than 25 years ago! It is one of the finest private collections in the country with examples of "species" or types not known in habitat. A news crew will be visiting her place in September to give the public a view into her world. As for Rudolph and I, we just enjoyed discussing the plants and helping out an amazing lady.



COVER PICTURE Tom Daniel did the original work of art in the early seventies. He designed many unique Hot Rods that became very popular kits and cars. I think it captures the excitement of our first road trip in some time. Will you join us in our club adventure? Don't miss out on a great time. See the President's message by Pam Badger for more details.



Please send your letters, artwork, poetry, Cactus or Succulent of the Month articles, puzzles, comments, or criticisms, etc. to:

Tom Knapik
4669 71 street
La Mesa, CA 91941
Phone 619-462-1805 e-mail eyf 2000
Call 858-569-8510 for FAX

NEWSLETTER SUBMISSIONS ARE DUE BEFORE THE 14TH EACH MONTH UNLESS OTHER ARRANGEMENTS ARE MADE.

Espinas y Flores, the newsletter of the San Diego Cactus and Succulent Society, Incorporated, P.O. Box 33181, San Diego, CA 92163-3181, is published monthly with the exception of a combined May-June issue (11 mailings per year). Newsletter circulation is approximately 260, with approximately 20-30 issues going to educational institutions, botanical societies, cactus and succulent nurseries, local publications, related natural history events, exhibits, and other interested groups or individuals upon request. Membership includes the newsletter and is \$15.00 per year, each additional member in the same household is \$5.00 for bulk mail within the U.S.A.

Opinions stated in the articles and editorials of *Espinas y Flores* are solely the opinions of the authors or editors and do not necessarily represent the opinions of other SDCSS members, the Board of Directors, or the organization in general. All materials submitted to *Espinas y Flores* for possible publication may be edited in form and content. All material in *Espinas y Flores* may be reprinted by other nonprofit organizations (unless such permission is expressly denied in a note accompanying the material) provided that: proper credit is given to the SDCSS, *Espinas y Flores*, and the author. Please send one copy of the publication containing the reprinted material to the editor. Reproduction in whole or part by any other organization or publication without the permission of the editor is prohibited. Volume 36, Number 9, Published, August 29, 2001.

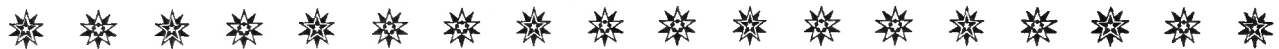
PRESIDENT'S MESSAGE FOR SEPTEMBER 2001

IT WAS FUN TO SEE SO MANY NEW AND OLD MEMBERS AT THE AUGUST MEETING. WE WERE TREATED TO rather different, yet exciting meeting. Despite the almost total lack of succulents in Woody Minnich's slide show, I'm sure all in attendance agree that the trip on the Amazon was fascinating and very enjoyable. Thanks for sharing such an interesting trip Woody! Likewise, Kelly Griffin's talk on variegated plants, both cactus and succulents, was entertaining and educational. It seems many of us are intrigued by these oddities of nature and appreciate the growing tips as well as the debate over their origins. Thanks Kelly!

If you were not there you missed the announcement that the BUS TOUR on the 8th of September will be to the Huntington Botanical Gardens with a stop at the show and sale of the South Coast Cactus and Succulent Society. We have almost sold out of seats - if you do not have a reservation and want to go call me ASAP to see if there is any space available (619) 589-1223. We have talked with John Trager, the curator of Desert Gardens and he will be available for a tour of the garden and also a tour of the Sales Greenhouses - this will be an opportunity to purchase some unusual plants so come prepared!

REMEMBER — If you are leaving from San Diego we will be gathering in the parking lot behind the Organ Pavilion at 7:45 for a 8:00 AM departure. If you are being picked up in North County - meet at the Park and Ride off I-5 La Costa exit NE side. We will depart at 9:00 AM so don't be late! We will leave the Huntington for return trip about 5:00 and be back around 7:00 PM. We will be having a picnic lunch (sandwiches, drinks and chips will be provided – bring cookies or something to share if you like) This will be lots of fun, I look forward to spending the day together with you!

Sincerely, Pam Badger pambadge@earthlink.net



FOR YOUR INFORMATION

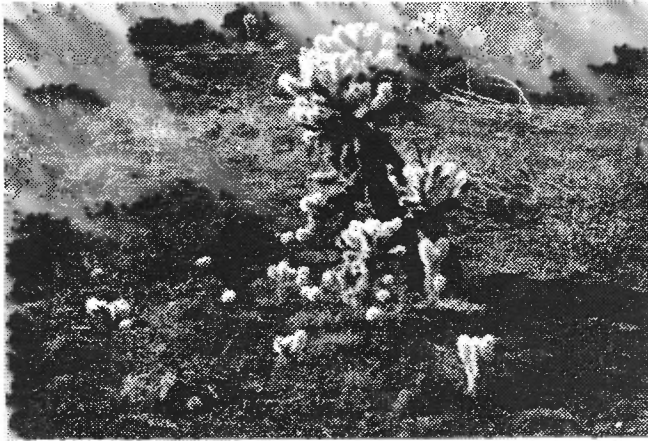
☞ Susi Torreo-Bueno, Newsletter Editor from the San Diego Horticultural Society has extended the following invitation: You are welcome to attend the San Diego Horticultural meetings FREE! Meetings take place the second Monday evening of every month. Meetings are held in the Satellite Wagering Facility from 6:30 PM to 9:00 PM at the Del Mar Fairgrounds. Please call (760) 630-7307 or e-mail dhortsoc@home.com for more information.

Mary Irish & Gary Irish - Agaves, Yuccas and Related Plants. September 10th, 2001. September speaker Mary Irish is a garden writer, lecturer and educator who has lived in Arizona for 15 years. She served as the Director of Public Horticulture at the Desert Botanical Garden for 11 years, during which time she managed the Garden's Plant Introduction and Sales Program. She is the author with Gary Irish of Agaves, Yuccas and Related Plants published by Timber Press, and Gardening in the Desert published by the University of Arizona Press. She currently serves as the Southwest garden correspondent for Sunset magazine and is a frequent contributor to national and regional publications. Ms. Irish hosts the Saturday morning Internet radio broadcast Arizona Gardener from the website www.Elandscape.com. Her plant interest range widely with agaves and their relatives, bulbs and desert perennials currently at the top of the list. She has a BA from the University of Texas at Austin and MS from Texas A&M University.

Our co-speaker, Gary Irish, co-author of Agaves, Yuccas and Related Plants, has lived in Arizona for 15 years and is an avid gardener and photographer. His photographs have appeared in American Gardener, Horticulture and other gardening magazines. He works for the State of Arizona Land Department managing the statewide GIS program and training center. He is a lifetime collector and grower of palms in addition to the desert plants and succulents in his yard. He has a BS from Southwest Texas State University and an MS from Texas A&M University.

What Has Happened To Opuntia?

By Jon P. Rebman



An example of *Cylindropuntia*, *C. bigelovii* (Engelmann) F.M. Knuth, the Teddy-bear Cholla.

The cactus family (Cactaceae) is divided into three subfamilies— the phylogenetically basal Pereskioideae, the Opuntioideae (the subfamily we are focusing on for this article), and the most derived and speciose Cactoideae, comprising some 80% of all cacti. The Opuntioideae (frequently referred to as opuntias or opuntiods) differ from all other cacti in having glochids (small, barbed, and deciduous spines) and seeds that are completely wrapped by a funicular stalk, which becomes hard and bony. The largest genus in this subfamily is *Opuntia*, and in its very broad sense numbers perhaps 200 species. In our region of southern California, the opuntias are our most diverse cactus group. For example, the flora of San Diego County includes 8 cactus species (barrels, pincushions, hedgehogs, etc.) in the Cactoideae and 18 species of opuntiods. These include all of the cacti that we commonly call prickly-pears (nopals and sometimes tunas referring to the nopal fruits), chollas (jumping cacti), and club-chollas (horse-crippers).

The large genus *Opuntia* (Cactaceae), which until recently included all of the prickly-pears, chollas, and club-chollas, is being taxonomically split up. For many years all of these different opuntiod cacti have been classified as one large genus with varying numbers of subgenera recognized within it. However, due to a new consensus among

modern cactus taxonomists, especially with the aid of molecular studies, the genus will be divided and many of the subgenera will be lifted to the generic level. In respect to these nomenclature changes, the opuntias of the United States now total 5 genera, 61 species, 18-20 additional varieties and many interspecific hybrids.

THE NEW TAXONOMY OF OPUNTIAS:

The current classification of opuntiod species for the United States, recognizes five genera (*Consolea*, *Cylindropuntia*, *Grusonia*, *Nopalea*, and *Opuntia*) that were previously part of the broadly interpreted genus *Opuntia*. The following accounts briefly describe each genus and its diversity in North America, north of Mexico.

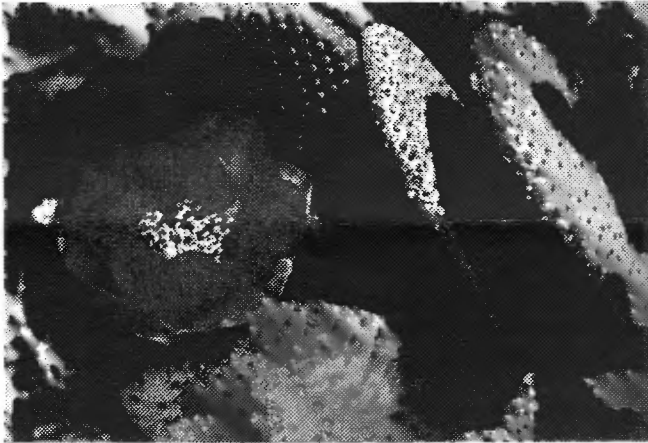
The true chollas (*Cylindropuntia*, to the left) have cylindric stem segments and completely deciduous spine sheaths. *Cylindropuntia* has 20 species, six additional varieties and at least nine named interspecific hybrids in the United States. The club-chollas (*Grusonia*, pictured below) are low mat- or clump-formers with cylindric to spheric stem segments having spines with only the tips being sheathed. In the United States, there are eight species and one interspecific hybrid of club-chollas. The prickly-pears (*Opuntia* in the strict sense, *Opuntia basilaris* to the left) have mostly flattened stem segments and are completely without spine sheaths. There are



The new genus *Grusonia*, *G. kunzei* (Rose) Pinkava, the Kunze Club-cholla.

31 species, 12–14 additional varieties and at least seven named interspecific hybrids in the United States alone.

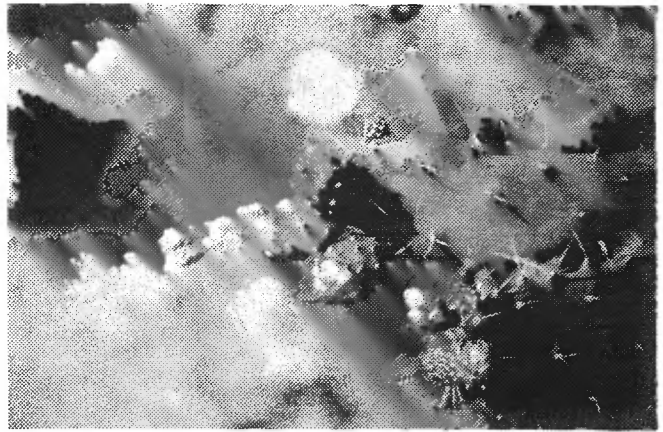
In the United States, two other genera of the Opuntioideae, *Nopalea* and *Consolea*, are found only in Florida. *Nopalea* has a flower modified for hummingbird pollination. The flower is somewhat tubular in shape with red to orange tepals that are almost completely closed, but with protruding stamens and stigmas. The *Nopalea* flower also has a nectar chamber covered by an extension of the style near its base. Just one species (*N. cochinellifera*) is found in the United States and has naturalized from cultivation in central Florida. The genus *Consolea* has short, orange to red, slightly bilaterally symmetric flowers, with wide-opening petals and a nectar chamber similar to that of *Nopalea*. There is one species in the United States, the nearly extinct native



Opuntia basilaris Engelman & Bigelow, The Beavertail Cactus stays in *Opuntia*.

C. corallicola from the Florida Keys.

It should be noted that at least one other opuntoid genus does occur naturally in our mission region in the Cape Region of Baja California Sur. The genus *Pereskia* has large leaves, spines, showy flowers, and stems that are not very succulent in appearance. Thus, many of the species look more like spiny shrubs or trees rather than the fat, succulent cacti that we are more familiar with. The species from the peninsula is called Rajamatraca (*P. porteri*) and it usually occurs in the Tropical Deciduous Forest, Sinaloan Thornscrub, around the base of the Sierra de la Laguna. This cactus species is almost vine-like and it clammers up the trees and into the canopy of the forests in this area.



Nopalea, *N. auberi* (Pfeiffer) Salm-Dyck, the Lengua de Vaca.

HOW DOES THIS AFFECT US?

This taxonomic change means that many of the species previously put into the genus *Opuntia* will now be recognized in other related genera. For example, the common Coast Cholla, which was previously recognized as *Opuntia prolifera*, will now be called *Cylindropuntia prolifera*. This same rule will apply to other regional chollas as well, such as: Teddy-bear Cholla (*Cylindropuntia bigelovii* var. *bigelovii*), Wolf's Cholla (*C. wolfii*), etc. However, the scientific names for all of the prickly-pears will remain the same, i.e., Beavertail Prickly-pear (*Opuntia basilaris* var. *basilaris*) and Coast Prickly-pear (*O. littoralis*). Don't worry— if you don't like all of these taxonomic changes and new scientific names, please realize that our local opuntia cacti are still the same plants that we know and love (at least many of us).

This Article first appeared in San Diego Natural History Museum's *Field Notes*: Vol. XVI Num. 2, Summer 2001.



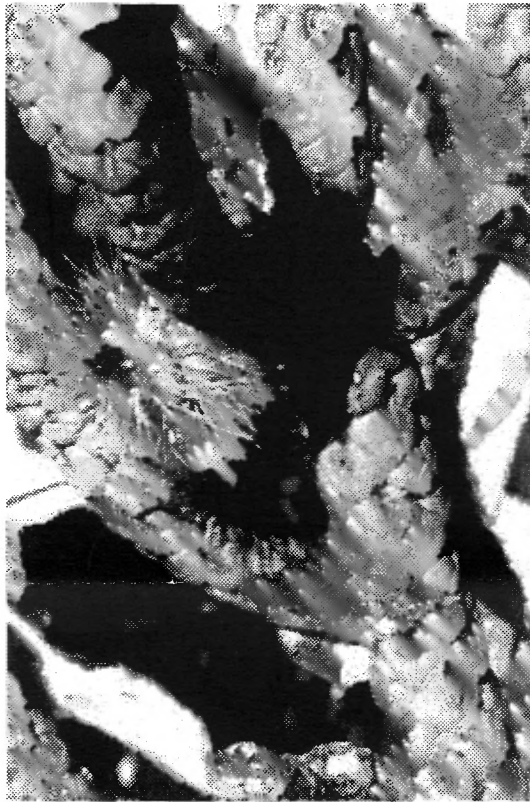
Consolea, *C. falcata* (Ekman & Werdermann) F.M. Knuth.

Internet Guide - Desert, Dust, and Thorns

If you think that's all there is to cacti, read on.

by Robert Burns (LA Times)

This week's Click could get a little prickly. But that's to be expected as it's the cactus tour. To be honest, the main reason we're taking on this thorny subject is that a colleague has been nagging us for months to visit cactus sites. She evidently spent a small fortune landscaping her South Pasadena hillside but is incapable of typing six letters into a search engine.



Cylindropuntia ramosissima introduction.html), where there's an encyclopedia of succulents, along with a tip of the day and a message board for questions and answers.

More answers and other info are at the Garden Web's cactus and succulent forum (forums.gardenweb.com/forums/cacti). There's one from Jolly Jan in Yorkshire, England, who asked: "How many is too many?" She's even bringing home cacti that look a "bit sad" at the garden centers. Joke all you want, but we know a cry for help when we see one.

If you'd rather see other people's cacti and succulents than growing your own, there's a cyber tour at the Ruth Bancroft Garden (www.ruthbancroftgarder.org) in Walnut Creek, CA. A more exotic tour can be found at the Botanical Garden of Reunion Island in the Indian Ocean (www.cactustropicalgarden.com/index1.html). You can take the tour in English or practice your French. Photos can be so real. The Smithsonian Institution's Department of Botany has a big collection of cactus illustrations at www.nemnh.si.edu/botart/cactgen.htm. It's so Darwin.

If all this is making you hungry- and why shouldn't it? Rivenrock Gardens (www.rivenrock.com) in Nipomo, CA., has some cactus recipes. Included are a cactus breakfast burrito, cactus chili and , the obvious choice for Hannibal Lecter, a fava bean and cactus soup. The Chianti is optional.

Of course, the best way to get your minimum daily requirement of cactus is a lot more fun: tequila.

[Editors note: Did you know that SDCSS has its own web page? It is maintained by Ross Shumway and includes pictures from our show and sale and a current calendar. Please take a look at this when you can. The web address is www.sdcss.com]

CALENDAR OF UPCOMING EVENTS

⇒ **SEPTEMBER** — 2001 —

- 8 SDCSS Road Trip see page 3 for details, no picnic this year.
11 CSSA Members are welcome. Call Duke Benadom, 805-526-8620 or email dukebenadom@earthlink.net
15-16 Kansas City C&SS Show and Sale, Blue Ridge Mall, Kansas City MO. Call President Eva Allen 816-444-9321 emallen@earthlink.net for more details.
23 Long Beach Club Annual Auction Dominguez Adobe 18127 South Alameda, Compton. Specimens auctioned for Club contact Hank Warzybok 562-429-7110

⇒ ***OCTOBER**

- 13-14 Orange County C&SS Show and Sale, Fullerton Arboretum in conjunction with the Arborfest, 10 am to 4 pm both Sat and Sun. Gene Schroeder 714-637-8192 aleshroeder@compuserve.com or Lloyd Garretson 714-539-8773.
20-21 Quail Botanical Garden Sale. 11:00 AM to 4:00 PM. Fantastic local sale of plants and related supplies. Please support Quail — OUR LOCAL TREASURE! Call 760-436-3036
20-21 San Gabriel Valley C&SS Winter Show, Los Angeles County Arboretum, Arcadia CA. For info call Vince Basta 714-738-1422 or e-mail: cactoholic@aol.com.
28 Long Beach Cactus Club presents SMOLASucculent Medium of Living Art by Rudy Lime. Info from Woody Minnich 661-944-2784 cactusdata@thegrid.net

⇒ **FEBRUARY** — 2002 —

- 22-24 C&SS of New Zealand Annual General Meeting and Convention. Hosted by Bay of Plenty Branch at the Hotel Armitage, Tauranga. Info: Andrew D A Ross, PO Box 1011, Tauranga, New Zealand, or e-mail: cactus@xtra.co.nz.

⇒ **APRIL**

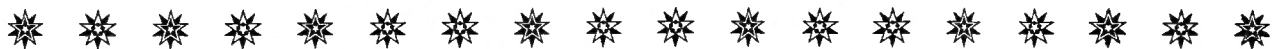
- 7-13 27th Congress of the International Organization for Succulent Plant Study (IOS) at the Desert Botanical Gardens, Phoenix, AZ. See IOS Web Page: www.iosweb.org

⇒ **JUNE**

- 1-2 SDCSS Spring Show and Sale. Start planning for those award winners, it is never to soon!
7-9 Mid-West Regional Conference, Kansas City, MO. Details: Eva Allen 816-444-9321 or e-mail: emallen@earthlink.net Check out their web page at <http://ourworld-top.cs.com/kccss1809>
8-9 C&SS of Queensland Show and Sale Mt. Cootha Botanic Gardens. Details from club, e-mail: cssq@powerup.com.au or check out their web page at <http://www.powerup.com.au/~cssq>

⇒ **JULY**

- 6-7 CSSA Show and Sale at The Huntington Botanical Gardens.



FYI Continued from page 3

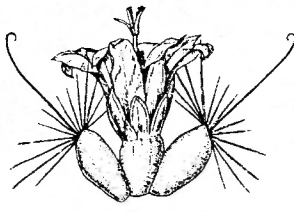
⇒ Quail Botanic Gardens has a whole suite of events coming up in October. On Wednesday Oct. 10 Portia Harloff will teach Succulent Wreath Making, from 10:00 AM to 2:00 PM. Call 760-436-3036 for details and reservations. On Saturday and Sunday, the 13 and 14 respectively, there will be an Orchid Fair sponsored by Quail, at the Del Mar Fairgrounds Activity Center. For information call 619-286-1976 or visit orchidfairsandiego.com. To top all of this all off there will be the traditional Quail Botanical Garden Sale on Saturday and Sunday, 20 and 21, respectively. Lots of the plants we all love will be available, and many other great plants and horticulture products as well. Call 760-436-3036 for more information. All of these associated activities happen in October. Don't forget to SUPPORT QUAIL BOTANICAL GARDENS, it is a local treasure that we all need to keep alive and growing!

Issue Highlights

- SDCSS Road Trip . . . 3
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Please check the top line of your label for, year/month your membership expires. If the date is getting close – PLEASE RENEW. THANKS for your help. ↓

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Editors: Tom Knapik - 619-462-1805 Joey Betzler - 858-569-8510 Mail to: 4669 71 St., La Mesa, CA 91941 call for fax or e-mail eyf2000@aol.com		Conservation: Joey Betzler and Kelly Griffin Education and Exhibits: Brag Table – Shirley Berry and Kay Quijada Plants of the Month – Jeff Harris and Lee Badger Summer Show – Tom Knapik, J. Betzler and Kay Quijada Winter Show – Ed DeLollis History: Terry Parr Liaison: Balboa Park Desert Garden– Susan Hopkins CSSA Affiliate Rep. – Kelly Griffin Quail Botanic Gardens – Phylis Flechsig San Diego Botanic Garden Foundation – George Plaisted San Diego Floral Association – Elizabeth Glover S. D. Wild Animal Park's Baja and Succulent Collections – J. Betzler Library: Tom Birt and Cynthia Santorini	Membership: Joey Betzler (858-569-8510) , Tom De Merritt Mailing: Pam Badger and Jeff Harris Plant and Seed Exchange: Plants – Michele Heckathorn and Sara Schell Seeds – Kelly Griffin Plant Sales and Supplies: Annual Sales – Tom Birt Auction and Holiday Plants – L. Badger, and Tom DeMerritt Benefit Table – Lee Badger Monthly Plant Sales – Jeff Harris and Joe Kraatz Monthly Supply Sales – George and Jerry Plaisted Publicity: Tom DeMerritt and Stan Yalof Programs: Kelly Griffin (760-942-4866) Reception: Ethel Standish Regalement: Monthly – Rudy Lime and Stefy Mangold Picnic – Laura and Tom DeMerritt
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The SAN DIEGO CACTUS AND SUCCULENT SOCIETY, INC. is open to all persons interested in growing cacti and other succulent plants. Meetings are held the second Saturday of each month (except June, Sept. and Dec.) at 1:00 PM in room 101, Casa del Prado, Balboa Park. Executive Board meetings are open to all members; call any officer or director for the time and location. Annual dues are \$15.00 per single member per year, \$5.00 for each additional (associate) member within the same household. Single copies of <i>Espinās y Flores</i> are \$2.00 per copy sent within the USA; foreign subscriptions are \$30.00. Affiliated with the CACTUS AND SUCCULENT SOCIETY OF AMERICA, INC. The <i>New</i> SDCSS Web Page is: SDCSS.COM - please take a look and give feedback to the webmaster.			