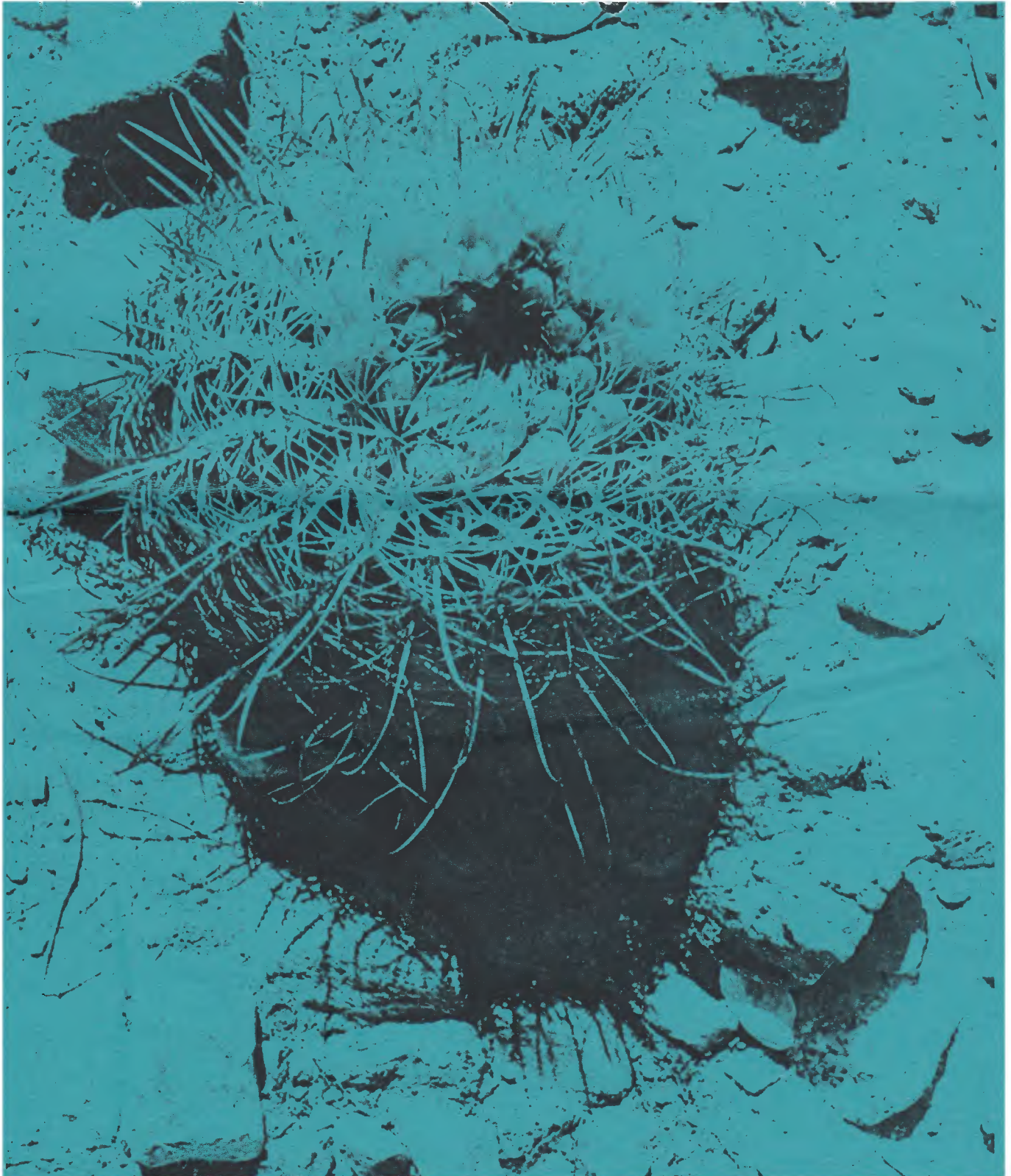


Espinas y Flores

Newsletter of the San Diego Cactus and Succulent Society, Inc.

Affiliated with the Cactus and Succulent Society of America

Volume 35, Number 9, Saturday, September 9, 2000 at 11:00 AM





“What? ... You mean no one brought the buns.”



It is that time of year again ...

Time to have fun at our annual picnic and auction. This year we will be taking our event to Kate Sessions Memorial Park in Pacific Beach. Read Tom’s President’s Message on page three for the details. He has written driving instructions in his note or you can use the map above. The auction will be silent to speed things up, and the picnic will be a potluck as usual. It will be a refreshing change to have a party outside, hope to see you there!

Cover photo is of a *Ferocactus acanthodes* in the northern Anza-Borrego desert taken by Joey Betzler

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 email eyf2000@aol.com FAX 858-569-8510

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 issues per year). Newsletter circulation is approximately 330, with 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. Subscriptions are \$15 per year for bulk mail within the U.S.A.

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President's Message for September 2000:

Don't forget.....it's time again for our annual September picnic which will be held at Kate Sessions Park in Pacific Beach on Saturday, September 9th, 2000. In addition to the picnic we will have a Silent Plant Auction. Any member wishing to participate may place their plants in the Auction per the guidelines listed below. The club will be placing plants in the auction as well. These plants will be of the same quality as those at our monthly benefit drawing. A special thanks to Lee Badger for procuring such awesome plants.

There will be only one type of auction, A Silent Auction. Here are the guidelines:

1. The club will receive a 10% commission (this is a reduction from 25%) for any member plant auctioned.
2. A Silent Auction will be conducted with no minimum bids. Silent auction plants must be presented with a bid sheet. Please tape a piece of paper to a piece of cardboard – this will act as a bid sheet. Clearly label the plant name at the top of this bid sheet. Bidders will write their name and bid amount on this sheet.
3. The Silent Auction will **not** allow minimum bids which places some risk on the seller (10 %).
4. Members can place a maximum of 2 plants in the auction.
5. Plants should be of Auction/Show quality.
6. Plants donated to the club will be GRACIOUSLY ACCEPTED.

Note: the guidelines are intended to promote quality, speed up the auction, and provide a fair process.

Our annual picnic will be lots of FUN. This picnic is a tradition and is in lieu of our monthly meeting. The picnic **starts at 11a.m.** This park is located in Pacific Beach. It is a lovely location and a past favorite picnic spot of the club's. This is a potluck affair. Show-off those culinary skills and bring a main dish, side dish, or dessert to feed 6 to 8 people. The club will provide beverages and paper goods such as cups, plates, napkins, and cutlery.

2 LARGE SUN TARPS will be provided. This location affords a beautiful Ocean and Bay view. There will be shade and parking. Bring a chair, blanket, sunscreen, a hat, frisbee, and a desire for a great afternoon.

Directions to Kate Sessions Park

1. Take Interstate 5 to Garnet Av.
2. Turn left on Garnet heading west approximately 2 miles to Lamont St.
3. At Lamont turn right heading north about .9 miles and the park is on the right hand side.
4. Turn right into Kate Session Park and go all the way to the end of the road where there is a small cul de sac and find a place to park.

What a wonderful August program! John Trager gave an excellent presentation on the wonders of South Africa. The photographs were fantastic and it was extremely informative. What a privilege it was to see such a rarely visited habitat. It was, as the previous newsletter stated, "a program not to be missed!" Additionally, thank you Joe Quijada, Tom Knapik and Juergen Menzel for their excellent presentations on *Deuterocohnia* and *Pediocactus*.

Please consider running for one of the 4 Officer positions that will be available for the 2001-2002 term. One of the best things about our club is our members and our member involvement. Contact your nominating committee members, Joey Betzler 619.569.8510, Phyllis Flechsig 760.753.5942 and Stan Yalof 760.743.1560 if you are interested. The election is held during the November general meeting.

Sincerely, Thomas De Merritt

CALENDAR OF UPCOMING EVENTS

— 2000 —

SEPTEMBER

- 9 San Diego Cactus and Succulent Society Annual Picnic.
- 9-10 Mid-Iowa C&SS Show & Sale, Merle Hay Mall, Des Moines IA. Info Rebecca Hoepfner, 515-292-1289, email: rehoep10170@aol.com.
- 9-10 Kansas City C&SS Show & Sale, Blue Ridge Mall
- 9-10 Houston C&SS Show & Sale, Houston Garden Center, Info, Mike Navolio, mnavolio@twistercom.com

OCTOBER

- 14 Central Oklahoma C&SS Fall Sale, Will Rogers Garden Center, 3400 NW 36th St, Oklahoma City OK. Info Joyce Bateman-Hochtritt, 408-737-1831, eactibud@aol.com
- 14-15 Orange County C&SS Show, Cal State Fullerton, Toni Garretson, 714-539-8773, sharkark@aol.com
- 20-21 New Mexico Xeriscape Conference, Albuquerque Convention Center. Info
- 21-22 San Gabriel C&SS Winter Show & Sale, Los Angeles County Arboretum, Arcadia, CA. Info Woody Minnich, 661-944-2784, Vince Basta, 714-738-1422

NOVEMBER

- 20 Palomar C&SS Show, Jostyn Senior Center, 724 N Broadway, Escondido CA. Info 760-743-1560

— 2001 —

JANUARY

- ?? C&SS of New Zealand Annual General Meeting And Convention, Auckland, New Zealand
Info: Joan Wells, j.m.wells@xtra.co.nz or www.cactus-mall.com/essnz/index.html

MARCH

- 13-16 C&SS of the ACT, SUCCULENTICON 2001, Canberra. Info Annette & Mike Smith, PO Box 484, Mawson ACT 2607. 02 6386 2984, mmsmith@dynamite.co.au

JUNE

- 2-3 SDCSS Spring Show and Sale
- 30-1 CSSA Show & Sale, Huntington Botanical Gdns, 1151 Oxford Rd, San Marino CA.

JULY

- 1-6 CSSA Convention, Warner Center Marriott, 21850 Oxnard St, Woodland Hills CA.
Please note that this is the correct date—some Affiliate newsletters are still reporting erroneous dates!! see www.essainc.org/convent.html for details

FYI FYI FOR YOUR INFORMATION FYI FYI

- ⇒ SDCSS member Stan Yalof presented a two part slide lecture for the Long Beach Cactus Club on August 27. The first part was *The Story of Asclepiads* and the second part was *How Cacti Made it Through the Americas*. Currently Stan is President of the **Palomar Cactus and Succulent Society**.
- ⇒ I know many of you just open up the newsletter to read this column, but wait ... read Tom's President's message on page three. He talks about club events and our **Annual Picnic and Auction**. It's a lot of fun and takes us outside for a change of pace. See you there!
- ⇒ Do you want to take a trip to India, Africa or Madagascar to look at succulent plants? SDCSS member and Succulent Plant Publisher **Herman Schwartz** is offering \$2,000 in travel expenses, to five lucky full members of the **U.S. Cactus and Succulent Society**. All of the details are not worked out but they will be soon, please stand by for details. Regardless ... **this is another good reason to join the CSSA** and buy books from Strawberry Press!
- ⇒ **Dylan Hannon, another SDCSS member**, spoke at the Gates Cactus and Succulent Society on Botanical *Travels in Western Mexico*. Dylan works at Rancho Santa Ana Botanic Gardens and does not get out to San Diego as much as he used to ... but he has kept his membership up since he departed.
- ⇒ Many of you got a note about your membership dues last month and paid up. Thanks for keeping your membership. We had a lot of new members join us in the spring. Thanks for joining us in our pursuit, enjoy it and don't forget to invite a friend along the way.
- ⇒ **The 15th Annual Inter-City Cactus and Succulent Show** was quite an event this year. There were some extraordinary plants and displays. Please call or write to the address on the inside front cover if you displayed plants or participated in this event. Thanks!

It was a sad day then and it is a sad day again for me as I write this tribute to a friend. The impact of Larry's death repeats as I read and reread the *Cactus and Succulent Journal*.

I served on Larry Mitich's Board of Directors for the CSSA. I was there at the beginning of his Presidency. On Thursday August 17, the day the rest of the world heard about Larry, I was home from work. A flurry of emails went out from Duke Benadom to inform the CSSA Board of Larry's passing. Larry was at his office at work where he spent a lot of time as professor emeritus of plant biology at U.C. Davis. He was found at his desk, in his chair.

My last correspondence with Larry was over a minor detail on the CSSA's Web Page, on August 15. I received news of his death 2 days later. In researching his life, I felt saddened when I saw his writings ... I knew that I would not be able to talk to him again. I was unable to find a note on him in the *Journal*, when he became a Fellow in 1979. He wrote about many others though, and he has recorded a history of people involved in the Succulent plant world that will stand for the years to come. I think that many of us looked forward to his writings on Fellows, scientists, nursery people, and hobbyists involved with the plants that we all enjoy so much.

For me, I first discovered succulents when I was very young, read *The Stapelieae* when I was in middle school, and started meeting other people with the passion in 1974. Larry made the names I read about, into people. I will miss him, and remember him and his sense of humor. I wonder who will be able to write and make my memories ... our memories, out of the name Larry Mitich?

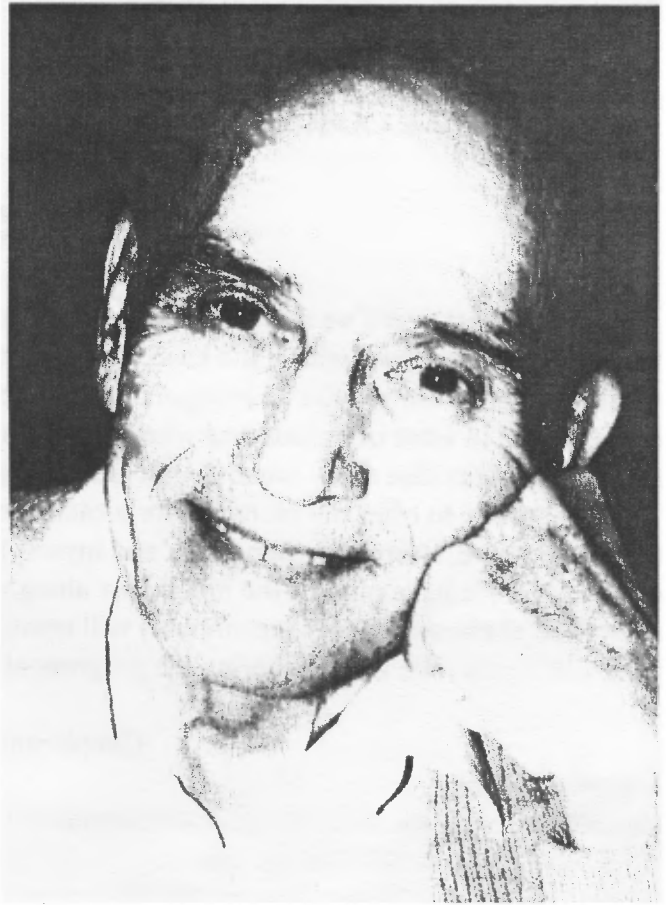
Respectfully, J. A. Betzler

Larry Mitich, a weed scientist emeritus for the University of California, Davis, Cooperative Extension, was a recognized authority on weeds that plague farmers' crops. But within the botanical world, Mitich was known for his passion for cacti and succulents and the people who cultivated and studied them.

He died Wednesday in his Robbins Hall office, where he continued to work nearly every weekday since his retirement five years ago. Mitich, who had a history of heart disease, was 73. "I think his heart just wore out," said his wife of 45 years, Charlotte.

Mitich was president of the Cactus and Succulent Society of America for the past 4 ½ years. He wrote numerous articles for the society's scholarly *Cactus and Succulent Journal*. He was also past president of the Weed Science Society of America and Western Society of Weed Science and past editor of *Weeds Today* magazine and the North Central Weed Science Society's *Research Report and Proceedings*.

During his 34 years in academics, he wrote 387



Larry W. Mitich, 1927 – 2000, a photo from the CSSA's San Diego Convention Guide, 1997

articles, papers and bulletins. He was named a fellow of the North Central Weed Science Society, Weed Science Society of America and the Western Society of Weed Science. In 1985, the Western Society of Weed Science named him Outstanding Weed Scientist.

Born in Lead, South Dakota, Mitich grew up in eastern Wyoming where, he later wrote, he developed his love of cacti and succulents. Prickly pear, morning star cactus and other cactus grew on his parent's ranch and in the hills surrounding his hometown of Newcastle. With water too scarce for a flower garden, his mother filled the windows of their home with houseplants. When he was in third-grade, his mother bought two varieties of snake plant for a dime each. "That was the start of my interest in succulents," he wrote in the cactus society March/April 1996 newsletter.

Larry had a personal collection of books and other publications on cacti and succulents, one of the largest of its kind in the nation. His interest in succulents took him to Africa for plant safaris twice, once to Rhodesia and two years ago to South Africa. He was active in the cactus society for a number of years, and became president in January 1996. Soon after, he began writing biographical sketches of famous cactus and succulent botanists and horticulturists. Ellen Dean, director and curator of the UC Davis Herbarium, said Mitich was a "very quiet, kind man" who would spend hours researching plant pioneers. "He would try to bring a plant alive for people, so he would try to find out who discovered it and where and how it was discovered," Dean said.

In addition to his wife, survivors include five brothers and one sister, all of Wyoming, and numerous nieces and nephews. One nephew, Jim Murray, is a UC Davis veterinary and animal science professor. Memorial

donations were suggested to the UC Davis Herbarium or to the Cactus and Succulent Society Research Fund. Checks for the herbarium should be made to the UC Regents and sent to: Ellen Dean, Department of Plant Biology, UC Davis, One Shields Ave., Davis, CA 95616. Cactus society

donations should be mailed c/o Mindy Fusaro, P.O. Box 2615, Pahrump, NV 89041-2615.

This is part of an article at the following site: http://www-pubcomm.ucdavis.edu/newsreleases/08.00/news_mitich_obit.html

Soil Study

by Tom De Merritt

Over the past year I've studied the various components of soil and their relationships to the plants that either exist or grow within it's base. Realizing that herbaceous plants require an organic mix just as succulent plants also require an inorganic mix is the rule that sits at the top of my list. From here we look forward to what is organic and what is inorganic. My mix varies slightly between cactus and succulents where like many bread dough recipes the ingredients are the same but differ in quantity.

I would like to offer my on recipe for a cactus mix and solicit for commentary and discussion in the months to come. Currently, Stan Yalof and myself have established a test matrix with 3 species of 30 plants each. We have planted the mix below along with various other mixes of various pH's and in a controlled environment (my greenhouse) will measure the growth rates of these various mixes over a period of 1 year. We will be sharing the progress of this test on a quarterly basis.

Cactus and Succulent Mix

Ingredient List:

Coconut core – made from the husk of coconuts this is also called COIR pronounced choir.

\$ 9.00 /3.2cu ft (1/2 garbage can)

Silver silica sand # 20 grit. The smaller the grit number the coarser the grit therefore the smaller the better (never higher than # 20). This is the same silica sand that causes lung disease so care is required when handling. \$ 4.00 / 100 lbs.

Oyster shell – Natures best calcium \$ 6.50 / 50 lbs.

Dolomite lime- Composed of calcium and magnesium, is a bacteria inhibitor, mealy bug inhibitor and beneficial mineral \$ 5.89 / 50 lbs.

Gypsum- promotes root growth, improves fertilization efficiencies, aids water penetration and loosens soil. 3.89 / 40 lbs.

Pigeon Grit- Composed of Granite grit, shell iron oxide and charcoal. \$ 7.00 / 50 lbs. at the livestock feed store.

Volcanic Pumice- inert material provides aeration and drainage. \$ 20.00 for one half yard

Steer Manure – cheap organic 74 cents / cu ft or chicken manure for 2.39 / cu ft

Tool List: Coffee can (40 oz), large mixing apparatus, small hoe

The Recipe:

- 2 coffee cans COIR
- 3 coffee cans PUMICE
- 1 coffee can MANURE
- ½ coffee can OYSTER SHELL
- ½ coffee can PIGEON GRIT
- 1/5 coffee can GYPSUM
- 1/5 coffee can DOLOMITE LIME
- 2 coffee cans # 20 grit silica sand

Note: other beneficial ingredients are osmocote at 1 teaspoon/gal and mesquite charcoal at 1 part / 10 parts.

Brag Table Plant Winners

Cactus

1st **Kelly Griffin** for *Puna* sp.

2nd **Don Patterson** for *Copiapoa cinerea*

3rd **Don Patterson** for *Notocactus scopa* var. *murielli*

Succulents

1st **Tom De Merritt** for *Fouquieria* collection

2nd **Kelly Griffin** for *Tillandsia tectorum*

3rd **Kelly Griffin** for *Haworthia* hybrid

Biodiversity Imperiled

With species disappearing 100 to 1000 times faster now than they have on average through the history of life on Earth, conservationists have good reason to examine why.

As part of Precious Heritage, a scientific team recently conducted the first quantitative assessment of threats that account for the official listings of 2,500 of the country's imperiled or endangered species. Their analysis ranked the leading threats to the nation's biodiversity according to their pervasiveness. The study found that the greatest threat is habitat destruction, followed by alien species, pollution, overpopulation and disease.

Of all the threats, habitat destruction impacts the most native plants and wildlife, affecting 85 percent of imperiled or endangered American species. From coast to coast, in backyard and backcountry, species are displaced as their native habitat is paved, logged, mined and plowed.

Invading alien species such as purple Loosestrife (a beautiful but deadly plant, infamous for blanketing wetlands in the United States and choking out native species) is a threat that affects 49 percent of the nation's imperiled or endangered organisms. More than 4,500 alien species have gained a foothold in the United States since the days of the European settlement. And as the number of non-native species here steadily increased, the threat they pose to the nation's flora and fauna is expected to worsen.

Pollution—which ranks third among the threats and affects nearly one-fourth of all imperiled or endangered species—takes a particularly high toll on aquatic organisms. Polluted runoff from a farm, for example, can kill resident mussels in several ways, suffocating them in waters laden with silt and oxygen-depleting algae, or poisoning them with toxic chemicals.

Overexploitation, the fourth-greatest threat, once endangered numerous bird and mammal species when game food filled the plates of many Americans. Now that farm-raised meats have largely replaced commercial hunting, overexploitation is a threat to only 17 percent of the nation's imperiled or endangered species. Finally, diseases, both foreign and native born, play a role in the decline of 3 percent of the country's imperiled or endangered organisms.

Plants at risk in the U.S.

Loss of plant species, even those that are rare, may lead to ecological imbalance. Furthermore, rare plants may prove of economic or medicinal value, as in the case of the Meadowfoam wildflower, which contains high-grade industrial oil. It is therefore of some concern that almost a third of all plant species in the U.S. appear to be at risk, a substantially larger proportion than in the case of mammals and birds. The record of plant species extinction is incomplete but suggests that the current rate is considerably higher than historical norms. (Over the past 200 years, at least 13 plant species have gone extinct, and an additional 125 have not been seen for years and may also be lost forever.)

Habitat loss or degradation is the single biggest threat to native plant species.

Other factors unique to particular states or regions also have a decisive role. In Hawaii, for example, most of the nearly 1,200 native species are endemic—found nowhere else on earth. Extreme endemism, combined with a large number of nonindigenous plants and major habitat alteration by both Polynesians and Europeans, has made Hawaii's flora the most threatened of any state in the country. Plant species in the upper Great Plains and much of the Midwest are the least threatened, partly because of the fairly uniform climate, topography and geology, conditions that favor species with widespread ranges. Additionally, during the period of Pleistocene glaciation, rare species tended to become extinct, whereas widespread species were more likely to survive south of the glacier and repopulate the land as the ice receded.

The following two pages illustrate the hot spots around the U.S. where species are imperiled.

HAWAII

1

Two thousand miles from the nearest continent, the Hawaiian Islands rise steeply out of the Pacific Ocean. Volcanic in nature and never connected to continental land, the island chain gave rise to a spectacular array of unique life forms: 87 percent of its native plants are found nowhere else on Earth and 97 percent of its known insects are also endemic. The islands are subtropical, mountainous and almost devoid of large predators. Without large herbivores, plants lost their usual defenses of thorns and toxins. Finches adapted to fill a variety of ecological niches, evolving into a lively group of Hawaiian forest birds now known as honeycreepers. The isolation ended when humans arrived in the islands between A.D. 200 and 500. The fragile ecology is now threatened by diseases such as avian malaria and pox, alien species such as rats and feral pigs and outright destruction of scarce habitats.

SAN FRANCISCO BAY AREA

2

Harboring the largest estuary on the Pacific Coast, a myriad of micro-habitats in the surrounding hills and one of the greatest concentrations of humanity in North America, the San Francisco Bay and Delta have become the second-densest hot spot of imperiled species in the United States. The Bay Area supports some 20 million Californians, 4.5 million acres of farmland, only 8,000 of its original 345,000 acres of tidal marshes and 135 imperiled species.

SOUTHERN APPALACHIANS

3

The Appalachians of today are the worn and weathered remnants of a majestic ancestral range once Himalayan in scale. Now geologically a mere chip off the old block, biologically they have become world giants. Over eons, the hills, caves, rivers and streams of the Appalachians have nurtured a flourish of biological diversity that includes the world's richest concentration of freshwater mussels, crayfish, salamanders and cave creatures. Having weathered the ages, the region's flora and fauna now stand threatened by the past century of dams, water pollution, mines, farmland erosion and logging.

DEATH VALLEY

4

Huddled in the midst of the Mojave Desert lives a group of Ice Age survivors whose once-huge Pleistocene lake has been steadily shrinking before them. Fish, mollusks and plants have blossomed under the pressure into a rich but precarious array of oasis specialists. One such gathering, at a series of springs and seeps called Ash Meadows, constitutes the highest density of geographically restricted species in the continental United States. Their most famous resident, the Devils Hole pupfish, lives in a single, 70-by-10-foot pool, the smallest range of any known vertebrate species. But what the isolation from predators and competitors has done for the evolution of species, a modern influx of groundwater pumping, overgrazing, off-road vehicles and alien species is now threatening to undo, leaving 52 species in the region imperiled.

COASTAL AND INTERIOR SOUTHERN CALIFORNIA

5

Some 6,000 miles from its namesake body of water, a habitat known as Mediterranean shrublands thrives, yielding one of the richest plant assemblages in the world. Flanked by ocean and desert and raised by mountains, Southern California's geography and geology have created a climate similar to the Mediterranean's and have made it home to more than 81 imperiled species. San Diego County, in particular, acts as a sort of crossroads for habitats. Harboring 1,800 native plants, it alone has more native species and more endangered and threatened species than any other county in the contiguous United States. The same inviting climate and topography have also attracted a parade of humans. San Diego County will add another 1.2 million people by the year 2015, according to some estimates.

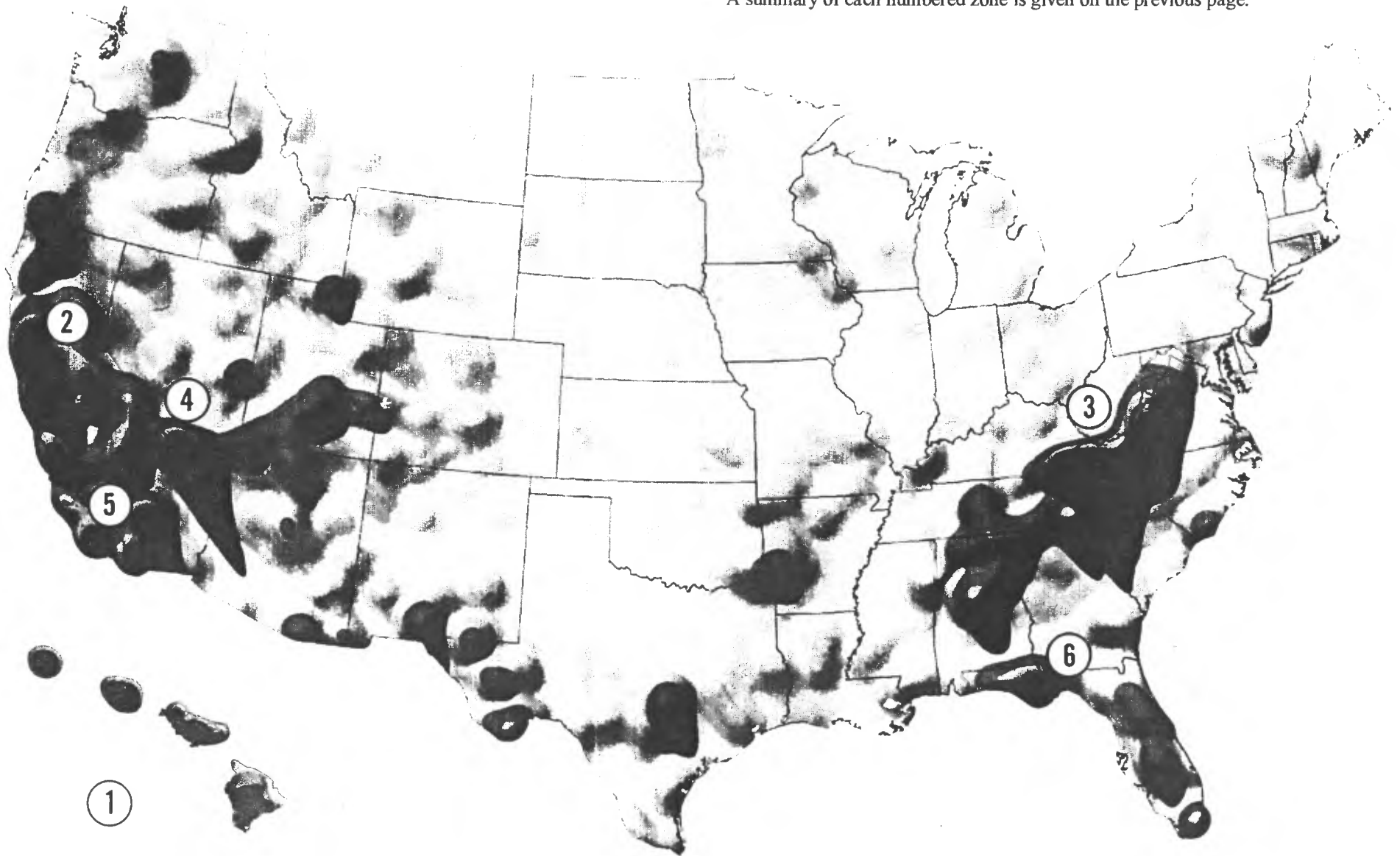
FLORIDA PANHANDLE

6

The Florida Panhandle is replete with rare and intricate habitats, from upland glades to pitcher-plant bogs, cypress swamps and hardwood forests. These converging habitats give rise to an impressive array of biodiversity. The largest longleaf pine forest left in the world blankets the Alabama-Florida line, and in the south-central part of the panhandle lies Apalachicola Bay, one of the country's most pristine estuaries. Along the upper Apalachicola River, one can find the highest diversity of reptile and amphibian species in the United States, while the river basin holds the country's highest diversity of woody plant species. Development pressures and the suppression of naturally occurring fire are among the key threats to the region's biodiversity.

Hot Spots Where Biodiversity Is Threatened

The map illustrates the areas of sensitivity. The darker a region, the greater the threat to endemic species.
A summary of each numbered zone is given on the previous page.

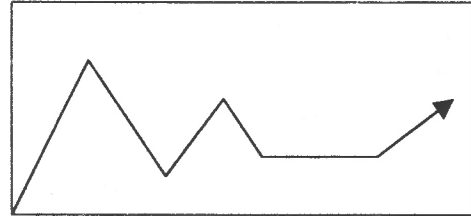


61% of the native plant species are at risk in Hawaii and in California it is 32%.

Source: The Nature conservancy in cooperation with the Natural Heritage Network and the Biota of North America Program.

WHAT'S THE STATUS?

by Tom Knapik



Topic #8: Threatened Cacti of San Diego County

In keeping with the theme of this issue, I have included some data on the cactus species that are imperil in our own county. This information was compiled by Craig H. Reiser in his *Rare Plants of San Diego County*. For more information about these and other rare species visit his web site at; <http://www.sierraclub.org/chapters/sandiego/rareplants/> Hopefully, a greater awareness of their current status will help secure a future for these unique plants.

***Ferocactus viridescens* (T. & G.) Britton & Rose (San Diego Barrel Cactus)**

State/Federal Status – Federal Candidate CACTACEAE May-Jun.

Global Rank Apparently secure State Rank **very threatened**

Distribution: Coastal San Diego County; Baja California, Mexico

Status: San Diego Barrel Cactus is declining, but still grows at many locales. Once very common along the coast, many small and mid-sized populations are routinely being impacted by grading for urban development. Particularly hard hit are the once vigorous colonies on Otay Mesa. Substantial portions of all sizeable populations should be protected.

***Bergerocactus emoryi* (Engelm.) Britt. & Rose (Goldenspined Cereus)**

State/Federal Status -- None CACTACEAE May-Jun.

Global Rank 3,000-10,000 individuals or 10,000-50,000 acres State Rank **very threatened**

Distribution: San Clemente Island, Santa Catalina Island, southern San Diego County; Baja California, Mexico

Status: The limited U.S. populations of Goldenspined Cactus are slowly declining. All mainland populations should be protected. Selected cuttings from the Point Loma populations should be considered for transplantation to appropriate coastal habitat elsewhere in the region.

***Opuntia parryi* Engelm. var. *serpentina* (Engelm.) L. Benson (Snake Cholla)**

State/Federal Status –Federal Candidate CACTACEAE Apr.-May

Global Rank 3,000-10,000 individuals or 10,000-50,000 acres State Rank **very threatened**

Distribution: San Diego County; Baja California, Mexico

Status: Snake Cholla is substantially declining in San Diego County. This cacti is not often protected in situ when it occurs in areas of development, and is becoming quite rare. Mitigation plans sometimes call for moving cacti to newly cut slopes in artificial habitats where its long term establishment is suspect. Most known sites are endangered by development within the next 5-10 years. This plant is capable of being propagated and rooted from cuttings, and should be strongly considered for use on protected lands within its historical range. The prostrate growth habit of this species is quite distinct from variety *parryi*, from which it is geographically isolated. Herbarium material, not showing this trait, is similar and not readily differentiated. This variety is not recognized by Parfitt and Baker in their treatment of *Opuntia* in the Jepson Manual (1993); however, it is being retained in the CNPS listings. More taxonomic work is warranted. Provisionally, sizeable populations are recommended for protection. Smaller populations should be protected on-site within biological open space, or if necessary, transplanted to high quality native sage scrub habitat in dedicated biological open space.

***Opuntia wigginsii* L. Benson (Wiggins' Cholla)**

State/Federal Status –Federal Candidate CACTACEAE March

Global Rank 3,000-10,000 individuals or 10,000-50,000 acres State Rank **very threatened**

Distribution: San Diego County, Imperial County, Riverside County; Arizona

Status: The status of Wiggins' Cholla on the southern deserts is presumed stable given the low level of historical disturbance to potential habitat. However, so few extant sites are known in the region, such an assessment must be considered provisional. More collection information is needed. All sites should be protected. A note in the Jepson Manual (1993) mentions that this cane cholla is a possible hybrid between *Opuntia ramosissima* and *Opuntia echinocarpa*; however, it is being retained in the CNPS listings.

LONG BEACH CACTUS CLUB

PROUDLY PRESENTS THEIR ANNUAL
**CACTUS AND SUCCULENT
PLANT AUCTION**

**SUNDAY SEPT. 24, 2000
AT 11:00 AM**

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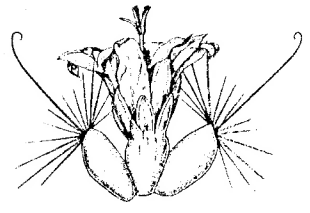


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The San Diego Cactus & Succulent Society, Inc.
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SAN DIEGO CACTUS AND SUCCULENT SOCIETY INC

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Brag Table - Shirley Berry
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Plants of the Month - Jeff Harris
 and Joyce Buckner

Summer Show - Tom Knapik, J.
 Betzler and Kay Quijada

Winter Show - Ed DeLollis

History: vacant

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 Susan Hopkins

CSSA Affiliate Rep. -
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Quail Botanic Gardens -
 Phylis Flechsig

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S. D. Wild Animal Park's Baja and
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Joey Betzler (858-569-8510) , Collette
 Parr

Mailing:

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Plants - Michele Heckathorn and Sara
 Schell

Seeds - Kelly Griffin

Plant Sales and Supplies:

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Auction and Holiday Plants - L. Badger,
 and Tom DeMerritt

Benefit Table - Kay Quijada and L. Badger

Monthly Plant Sales - Jeff Harris and
 Greg Wade

Monthly Supply Sales - George and Jerry
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Publicity: Tom DeMerritt and Stan Yalof
 Programs: Kelly Griffin (760-942-4866)

Reception:

Ethel Standish and Elizabeth Glover

Regalement:

Monthly - Lee Badger, Rudy Lime and
 Stefy Mangold

Picnic - Laura and Tom DeMerritt

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 *Espinas y Flores* are \$2.00 per copy sent within the USA; foreign subscriptions are \$30.00. Affiliated with the CACTUS AND SUCCULENT SOCIETY OF AMERICA, Inc. SDCSS Web Page available soon please stay tuned for address.