

Desert Breeze

Volume 2, Issue 2

June/July 1997

CSSA

Convention

San Diego

July 5 - 12

Book today

before cost

goes up.

CALL NOW -

Martin Mooney

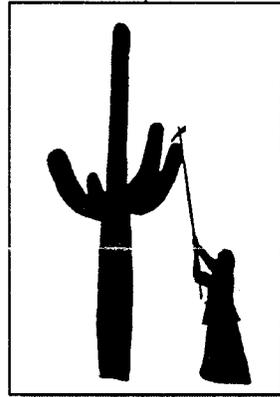
(619) 232-3821

Ext 247

President's Message

PLANT MEMORIES

Over the past 30 years, I have grown, cared for and killed more plants than I can remember: actually, more plants than I want to remember. So, I was out watering this morning and thinking about what to write as my message for this issue when, all of a sudden, I backed into an Agave. It jarred my memory, and I thought about who gave me that plant, or how I acquired it, and some wonderful, sad, and happy memories appeared.



Alan Blackburn, now deceased, was a life member and the backbone of the Society in the 60's and 70's. He held classes for new members on all phases of growing cacti. My wife, Pat, took his class in the early 70's and her seed grown Cleistocactus is now in bloom. I thought, what a wonderful tribute to Alan, that a class project

would still be producing fond memories. My *Lophocereus schottii* is getting ready to bloom again. It is a good size with at least two blooming stems. When I got it in the late 70's it was only a single stem about 2 feet tall. Ken Hartsock, a former treasurer of the society and I played hooky from work one day to go to a yard sale

held by the Meredith's (former secretaries). They were one of the first members that Pat and I met when we joined the Society in 1970-71. They were so genuinely enthusiastic about young new members and made us feel so welcome that from the very beginning we felt a part of this Society. Well, they moved back to Minnesota and Ken and I bought a lot of the specimen

plants from their yard. It was great fun.

Ken was my banker and friend. He called me in late December years ago

"I backed into an Agave.....some memories appeared"

and said that he had some great golden barrels that he took off Danny Bach at a great price, did I want some? Of course!

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Tucson Cactus & Succulent Society
Founded 1960

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Desert Breeze

is the Newsletter of the
Tucson Cactus & Succulent Society

Please send your articles, contributions,
suggestions, or announcements
you would like to make, to the Editor,
Carol Clapp
P.O. Box 91560
Tucson
AZ 85752-1560

(Continued from page 1)

So the whole family went over to Ken's, looked at his collection, chatted with his lovely wife, Marge, and I dealt with him on a dozen golden barrels. A week later Ken was murdered in a bank robbery while trying to protect one of his tellers. Those barrels have some real meaning.

When a plant is a surprise gift it is never forgotten. Two such gifts immediately come to mind.

My wife gave me a Pachypodium in 1979, as a thank you for being the nursemaid when she and all three children had the chicken pox. It's funny how you associate a plant with events. She got the plant at a store on Tanque Verde Rd. that I kept talking about, called Arid Land Plants. Chuck Hanson, the owner, picked it out for her knowing that I would really like it, and I have enjoyed it every day for 18 years. The three of us got together again to work on the CSSA convention in 1995. *What Fun!* The lives of plant people seem to be inter-twined.

The other gift which comes to mind is a wonderful Mammillaria which Dan Birt surprised me with at the TCSS Holiday Party in 1995. I was so taken back by the plant and the thoughtfulness in which it was presented, I was speechless. Every time I see the plant, it makes me smile.

*Go out in your garden
and see how some of
your memories are
doing.*



Dick Wiedhopf
President, TCSS

Scholarships for Campers - the 1997 TBG's Summer Program for Children

The Tucson Botanical Garden (TBG) is having some super programs for children this summer. They will be happy to accept donations of any amount to assist a child, recommended by its parent or teacher, who would otherwise not be able to take part. Children from 1st grade through 6th grade may participate.

For the youngest three grades there is "Let's Grow", a program to teach children about seeds, flowers and plants in the garden. "Critters in the Garden" is another program for the younger ones about bugs, and this includes an evening of exploring in the TBG for night critters, as well as cooking with native foods. For the 4th and 5th grades, there is "Grow Creative"; this is about plants for the kitchen, and with some hiking in the Catalina Mountains. For the older children the "Sonoran Explorers", a joint project with the Tohono Chul Park and the Arizona-Sonora Desert Museum, featuring desert plants, animals and



"Maybe just one
will become a
botanist and write
about cacti...."



people AND an overnight campout.

DATES: All these programs will be taking place during June, July and August.

Would YOU like to sponsor a child? The TBG suggests that \$50 is needed to sponsor one child. However, they will be only too happy to accept donations of any amount which will all help to assist children attend these exciting programs. Who knows? Maybe just one of them will develop a particular inter-

est in cacti and become a botanist in the future! Maybe even write a monograph on our favorite genus!



For more details contact:

Judy Davidson, Development Director, Tucson Botanical Gardens, 2150 N. Alvernon Way, Tucson, AZ 85712

Where the Desert Comes to Life

Desert Botanical Garden Phoenix

More than plants, an entire world. A visit to the Desert Botanical Garden offers more than just an understanding of the extraordinary plants that inhabit the arid regions of the Earth.

Surrounded by rugged red cliffs, the 145 acre Garden comprises one of the most complete collections of desert flora in the world. This Garden is home to over 20,000 plants representing nearly 4,000 species and is a renowned research facility.

DESERT BOTANICAL GARDEN
1201 N. Galvin Parkway
Phoenix, Arizona 85008
(602) 941-1217

ADMISSION: Adults \$6.00, Senior Citizens \$5.00
Children 5-12 \$1.00
Under 5 Free

HOURS: 7 a.m.-10 p.m. (May - September)
8 a.m. - Sunset (October - April)



COPY DEADLINE

Desert Breeze

20th of preceding month for the next month's issue, i.e. 20th July for August issue, but you don't have to wait until then to send it! *Please* send your copy as soon as it is ready to Carol Clapp,
P.O. Box 91560, Tucson, AZ
85752-1560.

LATE NEWS OR CHANGES

Call Carol on 908-9001 or
e-mail: kitfox@azstarnet.com

The Human Moths

In last month's **Desert Breeze** we mentioned a succulent plant which grows on sheer cliffs in Hawaii. Thanks to Gene Joseph, who reminded us of its name. *Brighamia insignis* is the plant we wrote about - see page 4 of May issue. The June 1997 issue of **ESPINAS Y FLORES**, the newsletter of the Cactus & Succulent Society of San Diego, contains an extract from Stephen L. Buchmann & Gary Paul Nabhan's book "The Forgotten Pollinators", 1966, Island Press/Shearwater Books, Covelo, CA, about this same plant. We think you will be interested to read this short extract.

...as William Stolzenburg of The Nature Conservancy has documented for two Hawaiian species of *Brighamia*. The two rosette-forming plants are collectively known from barely more than 120 individuals left in the wilds of Molokai and Kauai. They rarely set seed any more unless they are hand-pollinated by what Stolzenburg describes as the 'death-defying acrobatics of human moths'. The human moths, in this case, are biologists from the Hawaiian Plant Conservation Center who rappel over the brink of 3,000-foot precipices above the sea. Then, hanging from ropes, they brush precollected *Brighamia* pollen onto the stigmas of the few trumpet-shaped flowers growing out from the world's tallest sea cliffs.

These biologist-acrobats are trying to play the role once played by the native pollinators that *Brighamia rockii* and *Brighamia insignis* have lost over the last two centuries. Today, only half of Hawaii's original set of nectar specialists persist - and many of the remaining nectar-feeding birds, from the Hawaiian *alala* crow to the crested *akohekohe* honey-creeper, are officially listed as threatened or endangered. Stolzenburg reminds us that the idea of linked extinctions suggest that one species' demise is triggered by that of its evolutionary partners. "If ever there might have been a state set for exhibiting linked extinctions," he concludes, "Hawaii was it."

Hermann Jacobsen gives the following description:

"Brighamia A.Gray. Campanulaceae. - Hawaii. - Greenhouse, warm. Propagation: seeds.

Brighamia insignis A.Gray. - N. cliffs on Kuauo and Molokai. - **Caudex** thick and succulent, up to 1 m tall, tapered to a broad, almost spherical base; **L.** fleshy, entire, in a terminal lettuce-like Ros.; **Fl.** with a long tube, white."

Above extract was taken from the Lexicon of Succulent Plants, English Edition, 1974, by Hermann Jacobsen.

And now the \$64,000 question....

Does anyone have a photograph of *Brighamia insignis*?

Or a plant?

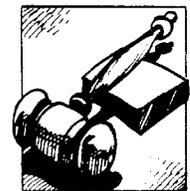
Welcome New Members

Mr Jerry Daharsh and 743-9963
Ms Jean Lewis
2941 W. Camino Camelia, Tucson, AZ 85745



Next TCSS Board Meeting - June 19

- Time and Place:**
- 7 P.M. College of Pharmacy
- Check front door for room location



Our *Peniocereus greggii* put up its first flower this year the night of May 18. Does anyone else have one in full bloom yet? The Tohono Chul Park expects theirs to put on its usual superb display mid June. Call the Park on 575-8468 for more info.
Ed.

TCSS Silent Auction

Everyone be sure to start grooming your plants NOW for the Silent Auction on September 14. We would like to see the auction plants, clean and well-established, and staged in nice pots. Last year we had such beautiful plants at the October event, and I know we can do it again!

If you would like to volunteer to help with the auction, please call me at Arid Lands, 883-9404. *Julie*

Do you have a pink slip?



If you find a *pink slip* with this newsletter, it indicates that, according to our records, your TCSS dues are overdue. People's activities change from time to time, so we don't want to keep sending you newsletters if you have lost interest in our wonderful hobby. Please fill in the *pink slip* and return it to us, so that we may keep our membership records up-to-date. Thank you so much.

Agaves, Yuccas & Dasyliirions of Mexico -

a report on the talk given by Greg Starr on May 1 at the TCSS meeting

Greg Starr started by telling us about the Agave plants he had brought along. Later he showed slides of Agaves, Yuccas and Dasyliirions, mainly of Mexico, describing each species and fielding questions from the floor relating to the plant slide being displayed.

The first plant Greg showed us was **Agave titanota**. Greg then referred to Dr Howard Scott

Gentry's monograph "Agaves of Continental North America", as being the "bible" on Agaves.

Agave bovicornuta from Alamos is fine getting a good dose of sun, but prefers partial shade in the middle of the day.

Agave geminiflora prefers the north side of a house and is happy in full shade during the winter;

Agave ocahui - do not pamper - no fertilizer, and water sparingly. Near a performance car center by Grant and Oracle in Tucson, there are three or four A. ocahui's which have grown out of character.

Agave bracteosa, being very user-friendly, is not fierce at all. It grows on near vertical cliff faces in Nuevo Leon and has been referred to as the "Squid Agave"!

Greg showed a nice little specimen of **Agave potatorum** which drew oohs and ahs from the members.

He had brought along two forms of the "Queen Victoria" Agave. **Agave victoriae-reginae**, one with a tight leaf formation, and the other, a looser leaved form.

Agave lechuguilla x scabra hybrid displayed the dark tips of its light green leaves.

Agave filifera x compacta hybrid offsets sparingly.

Agave leopoldii hybrid is possibly a cross between *Agave schidigera* and *Agave filifera*.

Greg showed us the first slide of **Agave bovicornuta**, the cow's horn agave. Along the leaf edge, one spine goes towards the center of the plant, and the next spine towards the outside, giving the appearance of cow's horns. It has yellow flowers.

Greg then explained the different types of agave inflorescence. Some have a single spike with individual flowers along the flower stalk, while others are paniculate type with side branches off the main flower stem, each branch bearing flowers.

Agave bracteosa has spiky type yellow flowers and the slide showed a 5 ft diameter clump. Greg related a story about Warren Jones who, in 1978, climbed up a vertical rock face to collect what he thought was a red-flowered Aloe. He got the plant which turned out to be *Agave bracteosa*. Greg is anxiously waiting to see the blooms on his plant of this species, to see if they really are red.

Agave colorata is a coastal plant near Guaymas and is found in two forms, one with long narrow leaves and the other with leaves which are broad at the middle, but taper at both tip and trunk. The broad type will offset. It has paniculate flower stems of pale yellow flowers, which are produced when plant reaches between twelve and twenty years of age. Greg said he had seen one which had flowered in only four years, but it had been grown very fast.

Agave geminiflora is hardy in Phoenix, but its hardiness is suspect here in Tucson. Prefers shade. There is one on Rosemont between 5th and Broadway, which is in full open exposure

and shows no damage. If grown in full sun the plant rosette is more dense.

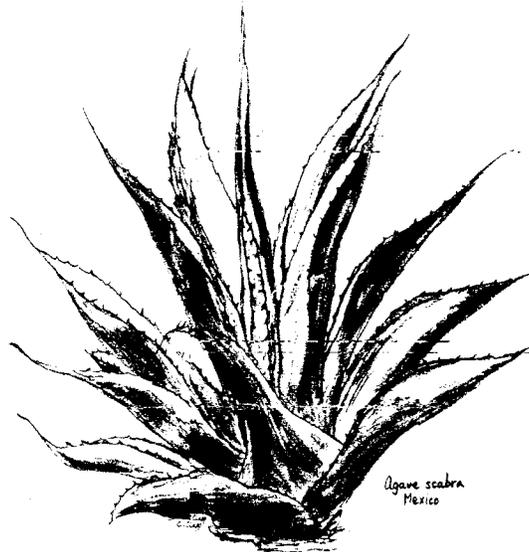
Agave maximiliana var. katherinae from Durango/Sinaloa has not yet been tested here. In habitat it grows amongst pine trees in an area which gets snow. The slide showed a 4 ft across, 4 ft tall rich green plant.

Agave neomexicana from north of the border, in the Guadalupe Mountains, NM, grows in full sun, is totally hardy, and has dense rosettes.

Agave ocahui was shown growing in a crevice in rock with very little dirt to grow in, in full sun and getting the reflected sun off the rock in Sonora. It has a spiky, yellow flower. The plant shown growing at Huntingdon is a non-offsetting type. Even used in a container, it retains its good form.

Agave parryi var parryi was grown from seed collected in Chihuahua. There are several varieties of *parryi*; *var huachucensis*, *var truncata* from Durango and Zacatecas.

(Continued on page 6)



(Continued from page 5)

Further south they grow more dwarf with broader, shorter leaves. Flowers are panicle.

Agave pedunculifera from Sinaloa is similar to "octopus" agave, with soft leaves and terminal spine. No spines along edge of leaves. Probably doesn't freeze in habitat, so would be OK in California, but not here. Spiky flower.

Agave potatorum, heavily armed with spines and terminal spine. Fairly tropical and common along some roadsides and very decorative.

Agave scabra from Chihuahua, when crossed with *A. victoriae-reginae*, makes a decorative plant which does extremely well here, without producing too many off-sets.

Agave schidigera with spiky, light-purplish flowers, grows in full sun, with pines nearby at high altitude in the State of Durango. Those which grow in San Luis Potosi are not so symmetrical.

Agave striata from Zacatecas in mid-Mexico also has spiky, purplish, though more reddish than *A. schidigera* flowers.

Rabbits love **Agave victoriae-reginae**. A discussion then followed on what rabbits like: rabbits, it was agreed, like some plants in one area, and in another place, they won't even touch those same plants. *A. fernandi-regis* is similar, but more open, than *A. victoriae-reginae*.

Two slides of hybrids came next - *A. scabra* x *A. fernandi-regis*, with its dark tipped leaves, and *A. lechuguilla* x *A. scabra*.

Beaucarnea gracilis from Tehuacan with its swollen trunk is not likely to be hardy here.

Dasyliirion gentryi from seed collected in Southern Sonora makes a beautiful form here in full sun. Variations in leaf color - blue or green.

Dasyliirion leiophyllum from Western Texas is low to ground although some develop trunks as they get older. Spiky flowers.

Dasyliirion longissimum is a taller plant than *D. leiophyllum*, with a trunk up to 6 ft. No teeth on leaf margins, smooth leaf, unlike all other *Dasyliirions*. When rolled in hand you can feel the 4 sides of the leaves. A specimen with a 4-5 ft trunk may be 200 years old. Very slow growing. In cultivation it grows much more quickly with the extra water and fertilizer it gets.

Dasyliirion miquihuanensis grows faster than *D. longissimum*, and has no problem with full sun.

In 1986, Greg made a trip to Mexico with Ron. They saw spikes of *D. longissimum* on distant hills. They had

cut two stalks down when Ron said to Greg, "You take these two back to the truck and I'll go further up the hill, then I'll meet you back at the truck." A while later, Greg saw Ron walking back to him with one spike on each shoulder, unknowingly knocking these spikes on other tall plants as he walked. Seeds flew off the spikes. Greg saw \$\$\$ flying off the spikes! Even so, they still got between 30 and 40,000 seed off those two spikes.

Dasyliirion wheeleri grows north and south of the border with *Yucca rigida*.

Nolina longifolia from Oaxaca starts with single trunk, eventually splitting into two trunks, or even three. Very attractive plant - old leaves hang on and droop over trunk, so that at all times it has leaves which are erect, spreading, and drooping.

None of the **Nolina matapensis** in Central Sonora, not far south of the border, had flowers when Greg photographed them.

Ron and Greg found **Nolina nelsonii** which had developed a 10 ft trunk with a massive seed spike. Ron, at 6ft2" thought that Greg should climb on his shoulders and cut off the spike. When this was done, Ron emerged with bees all over his face which had been buried in the dead, drooping leaves, while Greg was cutting the stem.

Yucca faxoniana from Guadalupe Mountains in NM has a stout trunk and can be found sporadically in nurseries.

Yucca rigida from Coahuila, has a tight rosette of stout, bluish leaves, with sharp terminal spines. "Don't plant in high traffic area, unless you want to keep people away!" In TBG this plant is in bloom in late March/April.

The variable species, **Yucca decipiens** from Nuevo Leon and S. Coahuila and near Monterrey, has flower spikes which hang down here, but when growing in Australia, the spikes stand up.

Bobette Levy asked about Agaves dying after flowering: the clumping types will continue to grow, with just the flowering rosette dying, but the solitary types, bloom and die.

Further reading:

Las Plantas Mexicanas del Genero Yucca, by E. Matuda, is a monograph on Mexican Yuccas (in Spanish) 1980

Yuccas of South Western United States, by Susan Delano McKelvey. 2 vol. 1938





TCSS Program

Meetings are at 7 P.M. at the Tucson Botanical Gardens, 2150 N. Alvernon Way, Tucson 85712, unless stated otherwise.

Non-members Welcome!

Thursday June 5 Carl Olson, Associate Curator of the University of Arizona Insect Research Collection, will present the program, **Insect And Other Arthropod Interactions With Your Cacti And Succulents**, at the TCSS meeting on Thursday, June 5. This slide presentation will provide a look at insects commonly encountered in your yard, with a different look at what most insects and other arthropods really do **for** you, not **to** you.

Carl has been at the UofA for 22 years. During that time he has taught a beginning course in entomology each Fall; taught many Elderhostel groups; held workshops for many public school and docent groups in the Tucson area; served on the faculty of the Tucson Audubon Desert Ecology Institute; and has been guest lecturer for courses in horticulture, Natural History of the Southwest, agricultural education and many workshops in teacher education. He is currently involved in an outreach program with Pima Community College called "The Jewels of the Night" which helps introduce many to the extraordinary activities of insects at night.

Particular variety of research activities has also been a part of his work. Exploring fossil insects with Van Devender and W. Eugene Snodgrass at the Desert Museum has led to several papers. Curatorial work with Rene L. Snodgrass and articles for their publication "Sonoran Insect Research Associate" have included other areas of research work and both forensic and urban landscape entomology.

Carl has also been involved with informing the public about insects and how to deal with various encounters in the home and yard. He has been on the KUAT series "The Desert Speaks" and "Arizona Illustrated". In 1984, Carl co-authored the book "Learning about and living with insects of the Southwest" with the late Floyd G. Werner.

Refreshments - those with names E - N please.

Thursday Aug 7 Speaker - *Jon Weeks*
"Brief botanical tour of arid land plants of Nuevo Leon and Coahuila" Refreshments O - Z

(continued foot of next column)

Other events to interest you

Some of these events are quite a long way away from Tucson but, as some of you travel the country and beyond, it is nice if you know what is going on elsewhere. It is recommended that you check dates and venues before travelling a long distance.

July 1-5 Pre CSSA Convention Baja Tour, "Boojums & Boulders". Call Baja Discovery, (800) 829-2252

July 5-6 CSSA Show and Sale, Huntington Botanical Garden, San Marino CA. Info: Duke Benadom (805) 526-8620

July 7-12 CSSA Convention, San Diego. *Hurry and make your reservation today* - see page 1 of this issue for details.

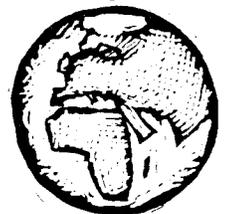


July 12-18 Post CSSA Convention Tour, "Transpenninsular Trek", 700 miles. Call Baja Discovery, (800) 829-2252

August 16/17 Inter-City Show and Sale, Arboretum of Los Angeles County, 301 N. Baldwin Av., Arcadia, CA. Info, (310) 599-1146

1998

Aug 31 - Sept 4 - 25th Congress of the International Organization for Succulent Plant Study, Kirstenbosch, South Africa. This is being organized by Dr Gideon Smith and Mr Craig Hilton-Taylor of the National Botanical Institute, in collaboration with the Succulent Society of South Africa. Info: Dr Gideon F. Smith, Director: Research, National Botanical Institute, Private Bag X101, Pretoria 0001, South Africa.



Sunday Sept 14 Silent Auction, chaired by Julie Turko. Afternoon. *Please* call Julie on 883-9404 with your offers of help for this event. See p.4 also.

Thursday Oct 2

Speaker - *Kent Newland*

"The Genus *Mammillaria*"

November to be advised

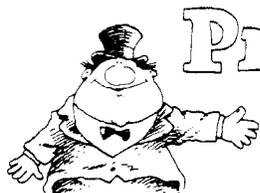
December Christmas Party

In the Fall of '98 **T.C.S.S. 2nd Stuck-on-Tucson**



NEXT MEETING

**Thursday, June 5 at 7 P.M. in the Porter Room at the
Tucson Botanical Gardens
2150 N. Alvernon Way, Tucson, AZ 85712**



Presenting

**Carl Olson,
Entomologist from UofA**

**“Insect Interactions With Your Cacti
and Succulents”**

(Please see previous page for more details of this super event)

Refreshments by those with family names beginning with E to N
