

Espinas y Flores

MAMMILLARIA THORNBERTI

NEWSLETTER OF THE SAN DIEGO CACTUS & SUCCULENT SOCIETY

Affiliate of the Cactus and Succulent Society of America, Inc.

VOLUME XXXI NUMBER THREE, SATURDAY, MARCH 9, 1996 @ 1:00PM



MARCH PROGRAM: MYRON KIMNACH PRESENTS THE NATURAL HISTORY OF MADAGASCAR

Myron Kimmach, curator emeritus of the Huntington Botanical Gardens, editor of the Cactus and Succulent Journal of America, and botanist explorer will present a slide show on the natural history of Madagascar with focus on its current endangered biological status. Myron spent three weeks in late 1995 traveling from Antananarivo to Tulear, with many side trips on the way. The main purpose was to look, photograph and experience this botanical wonder.

Myron writes in the CSSA Journal "We were all horrified at the habitat destruction that has reduced Madagascar from a richly forested island with unique flora and fauna to a deforested, burned-out, eroded remnant. The annual burning of vegetation to encourage grass for cattle-grazing was going on while we were there, the island is being shrouded in smoke during the entire month. Sometimes we would come across a small pocket of original forest that had so far escaped the fires and charcoal-makers, and it was a poignant pleasure to see that there were still orchids and lemurs surviving in such niches. Mostly, though, the only trees left are Australian eucalyptus and Mexican pines introduced for lumber or charcoal because of the eradication of the endemic trees. As you might suspect, the birth rate is responsible for Madagascar's precarious situation — the average family has six children. This population pressure is compounded with each new generation; simple arithmetic therefore indicates a grim future for that nation's population and wildlife."

In spite of these rather depressing observations about Madagascar as a whole, Myron managed to photograph some wonderful plant material. We are looking forward to an exciting and informative program. And I personally hope he has some exciting new *Kalanchoe* slides!

OUR COVER:

"In the parched south, absence of shade in the thorny forest of *Didiereaceae*"

Cover photograph from Gian Paolo Barbieri's wonderful artistic photo book:
MADAGASCAR, The Harvill Press, London, 1995.

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Please send articles, notices, letters, compliments & complaints for *Espinas y Flores* to:

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Looking for that perfect excuse for a Spring Road Trip? Or perhaps, a reason to spend a weekend in Las Vegas? The **Cactus & Succulent Society of Southern Nevada** can accommodate! Their Annual Show & Sale will be held this year on the weekend of **March 30-31st** at the Desert Demonstration Gardens in Las Vegas. This will be the first year that their show will be judged and members are carefully preparing their plants for some healthy competition. Contact Denni Plath @ (702)367-6063, or Stan Korabell @ (702)255-1744.

Speaking of Spring Road Trips — here are some **Desert Wildflower Hotlines**: Anza-Borrego Desert State Park (619) 767-5311, *(619) 767-4684; East Mojave National Preserve (619) 256-8700 and the Mojave Plant Society *(702) 648-2177; Joshua Tree National Park (619)367-7511; The Living Desert in Palm Springs (619) 346-5694 with their excellent far-ranging Wildflower hotline *(619) 340-0435. (*Those marked with * are Wildflower recordings with Wildflower information - the other numbers are answered by real people for info regarding weather, road conditions, fees, and special events.*) Remember when going on a desert excursion let friends know of your travel plans, always take plenty of water for you and your vehicle, and don't forget the sunscreen!

Please note these corrections regarding the **San Diego Epiphyllum Show & Sale**: Sale starts on Saturday, **May 11th** from 10:00am to 4:00pm and on Sunday, **May 12th** the **Epi Show & Sale** are held from 11:00am to 4:00pm — address for both days is Casa del Prado, Balboa Park, San Diego; show will be in Room 101. For additional information you may contact: Don Francis, show chairman, @ (619) 273-5544 or Marge @ (619) 469-3626.

The **Festival of Flowers — The 71st Coronado Flower Show** will be held on **April 20-21** at Spreckels Park, Coronado. This is a standard flower show with 18 sections for a wide range of entries and exhibits. **Section "L" is Succulents & Cacti**, contacts are Don Bloom (437-8445) and John Blocker (435-8397). Saturday, April 20th features a plant sale which begins @ 8:00am; the Flower Show opens at 1:00pm after the judging. There is continuous on-stage entertainment including live music at various times throughout both days. Educational demonstrations, hands-on clinics, environmental workshops and guided tours make up just part of the show. On Sunday, April 21st the Trophy Presentations begin; there are over 53 Trophies listed on the program guide and it is noted that the Coronado floral Association awards an additional 30 trophies in the Children's section. Admission is \$2.00 for adults & \$1.00 for children over 12. To obtain a program write to: Coronado Floral Association, P.O.Box 188, Coronado, CA 92178-0188. Flower Show chairpersons are: Thomas Stanley (435-9291), Linda Stanton (437-8332), and Phil Needham (435-4823).

The San Diego Horticultural Society's March 11th Meeting features Lily Singer on biological control of garden pests. This energetic young club (two years) features a wide variety of activities and has a wonderful "show & tell" function at each meeting where members bring in (about three table's worth) all sorts of new & interesting flowers, cuttings and plants to share. This serves as a great learning experience, as you will always find some new plant that you have never seen before. Meetings are held on the second Monday of each month @ 6:00pm at the Del Mar Fairgrounds — Satellite Wagering Facility, Jimmy Durante Blvd., Del Mar; for membership and other information please phone (619) 630-7307.

Thank you for all the support and enthusiasm with regards to my succulent of the month presentation on Kalanchoes. Especially, I want to thank **Brett McCowen** for carrying in all my plants and setting up an extra table while I was parking! *Thank you, Joyce Buckner.*



The Santa Barbara Exhibit & Sale will be held on **April 27-28** at the Recreation Center, McKenzie Park on State and Los Positas. This show and the sale is open to participation by anyone interested; the exhibits are presented by table; this is not a judged show. Please contact Cory Wells @ (805) 965-1875.

California Cactus Growers Association welcomes as guests to their meetings those who have a serious botanical interest in cacti and other succulents. If guests wish to partake of the potluck lunch, each person must bring by 11:30am a dish to serve 8, plus their own eating utensils. Those who wish only to hear the speaker are invited to come at 1:00pm. Parking may be limited at the grower's site — please ride share whenever possible.

April 10: Moorten Botanical Gardens, 1701 S. Canyon Drive, Palm Springs; Hans Britsch, "The 1995 IOS Field Trip in Central Mexico".

June 12: Thibodo Community Center, 1150 Lupine Hills Drive, Vista; LeRoy Phelps PhD, "The Use of Succulents in Bonsai".

The Tenth Eastern Cactus & Succulent Conference will be held on **August 23-25**, at the Ramada Rolling Green Hotel & Conference Center (*for hotel reservations @ \$68/night call 800-323-1351 prior to August 9th*) in Andover, Massachusetts (*about 20 miles north of Boston*). Conference speakers include: John Lavranos of South Africa, Steve Hammer of New Mexico, John Pilbeam of England, Chuck Hanson of Arid Lands Nursery, Miles Anderson, Peg Spaete, Bob Johnson, and Darl Bickel's multimedia extravaganza. A few registration forms should be available @ the membership table of our March meeting; or contact: Dave Rude, 27 Derlon Lane, Litchfield, NH 03051-2604 — phone (603)886-3876 — e-mail: derude@aol.com. For info please contact: Art Scarpa, 679 Pearl Street, Reading, MA 01867 — phone (617)944-5959.

— LETTER TO THE EDITOR —

February 5, 1996

Dear Michael and Joyce,

Thank you for the copy of *Espinas y Flores*. I am filled with admiration for the high quality of your newsletter and wish to subscribe a membership to the San Diego Cactus & Succulent Society for Bob and myself. How can you put out such an impressive publication for dues of only \$15 per year per family?

I am even more impressed with the large membership of the SDC&SS and the INCREDIBLE number of committees and subcommittees in which your members participate. Other organizations almost have to grovel to induce people to head committees (usually on a one-year basis, at that). What is the secret of your success, aside from the obvious one of being a dynamic group whose members are enthusiastic and fulfilled in belonging to the SDC&SS?

Bob and I look forward to being (long-distance, unfortunately) members of such an exciting organization.

Sincerely,

Aiko Schick (California Cactus Growers Association)

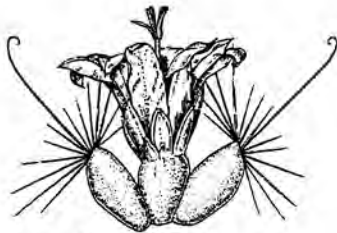
editors note:

Thank you for all the wonderful compliments. In answer to your first question: Bulk mailing and the hard work of so many of our members during the June Show & Sale creating financial success year after year. As far as the rest of it goes: Enthusiasm is contagious! You paint such a bright picture re: committees! Believe me, as past President, Secretary, and committee members we have definitely done our fair share of groveling, begging, pleading and even threatening! It's letters like yours that keep us going.

Thank you! Michael & Joyce Buckner

Now if you are a member who is not presently on any other committee - we need your help:

● **PLEASE VOLUNTEER FOR THE REGALEMENT COMMITTEE!!** ●
 Contact Rudy Lime @ 284-2306 or President, Joey Betler @ 569-8510.



Mammillaria thornberi

San Diego Cactus and Succulent Society

P.O. Box 33181, San Diego, California, 92163-3181

Presidents Message for March 1996

Special thanks are due to the following people for their personal contributions to the Richard G. Latimer Jr. Research Fund: Chuck & Dana Adams, Gloria & Mary Ann Alexanderson, Mrs. Florence R. Arnold, Harold S. Berg, James & Shirley Berry, Joseph Betzler, Penny Bunker, Mrs. Eleanor Dice and her son James C. Dice, Dianne Dunn and Rick's friends at Sorrento Electronics, Chuck Everson, Phyllis Flechsig, Rosalie Gorchoff, Vye V. Graves for the Victoria Cactus & Succulent Society, Carmen L. Hammond, Judith E. Hannula, Joan & Paul Johnson, Richard & Frances Johnson, Myron Kinnach, Beverly Kirkegaard, Ruth, Jeannette & Thomas Latimer, Seymour Linden, Ph.D., Sy, Sue Sue & Oliver Luu, Larry & Charlotte Mitich, John & Dorothy Pasek, Leroy N. Phelps, Ph.D., George Plaisted for the San Diego Botanic Garden Foundation., Inc., Joe & Kay Quijada, David & Kathe Roberts, Christian & Ethel Standish, Herb & Ana Stern, Frank & Marianne Thrombly, David Tufenkian, M.D. on behalf of the San Gabriel Valley Cactus and Succulent Society, Jim & Mille Williams, Stan & Boecky Yalof. The total of these donations is \$1,850.00 (\$350.00 of which has already been turned over to the CSSA).

Thanks as well, are due to Rick's sisters; they allowed the SDCSS to auction some of his plants. Michael and Joyce Buckner also donated a plant that was auctioned off at the SDCSS Holiday Dinner. The funds from these events were also added to the Richard G. Latimer Jr. Research Fund. I was very happy to see that this was more than just a local event. Over the past six months most of us have come to accept Rick's passing, though we still miss him. Without your personal donations, the plant societies that helped and those that participated in the auction (and got to take home one of Rick's plants), the San Diego Cactus and Succulent Society would not have gathered \$2,422.00! In March the SDCSS will present the Cactus and Succulent Society of America with the remainder of these funds.

The SDCSS will be producing a club roster for 1996. This will be the first time that we have done this in a long time. The roster will consist of a list of all of the members that have paid their dues. If you receive a complimentary ('comp') copy of the newsletter, you will not be listed. Names will be listed as they appear on the mailing label unless you tell us otherwise. Your address and phone number **will not** appear unless you fill out this optional part of the form. If you want partial information listed, i.e. city and phone number, you may do so. If you do not want your name listed you can ask to be left off of the roster by filling in your name and checking a box on the form. On the same form is a member survey, we want your input on the society.

A member survey has not been taken for awhile either and the executive board has approved this. We need some new input from the members on what you want to see in the society. Please take some time to fill it out, your voice does make a difference. As an incentive to get the SDCSS ROSTER / MEMBER SURVEY forms in A.S.A.P., the board has designated that two drawings be made. They will be for a prize plant and a \$20.00 gift certificate. In order to qualify for the drawing you must have the form in by our March 9 meeting. We will have a collection station room 101.

Thanks for your help,

Sincerely,

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THE MONTHLY BENEFIT PLANT DRAWING

YOU WIN, WE WIN!!! YAHOO!

BY KAY QUIJADA

February's Benefit Drawing included some wonderful plant donations. We would like to thank the following donors! Many thanks to: **John Cooper**, of Cooper's Cactus Nursery for the magnificent Trichocaulon officinale, **Betty Athy** for the Parodia turecekianus, and **Michael & Joyce Buckner** for Kalanchoe beharensis cv "Fang", Kalanchoe blossfeldiana, Kalanchoe marmorata, Kalanchoe tomentosa, and Kalanchoe tomentosa "Chocolate Soldier".

The Benefit Plant Drawing has been well received. When president **Joey Betzler** asked members if they liked the idea of the this new plant drawing, the response was a big YES!

The Benefit Plant Drawing Committee (Kay Quijada, Betty Athy, anyone else?) is presently accepting plant donations for the March, April, and May drawings. Donations should be those plants that you would wildly desire in your own collection and must be impeccably clean, healthy and pest free. If you would like more information please contact Betty Athy @ (619) 469-7647.

P.S. Betty advised that there will be another of **John Cooper's** uncommon, blooming, unblemished and perfectly grown Trichocaulon officinale on our March Benefit Drawing Table.

BRAG TABLE WINNERS FOR FEBRUARY 1996: JUDGED BY TOM BIRT

CACTUS:

- FIRST PLACE: Don Patterson's *Matucana heyderi*
SECOND PLACE: Beverly Kirkegaard's *Turbinocarpus schmiedickeanus*
THIRD PLACE: Elibet Marshall's *Notocactus corynodes*

SUCCULENT:

- FIRST PLACE: Rudy Lime's *Pelargonium crassipes*
SECOND PLACE: Beverly Kirkegaard's *Gibbaeum dispar*
THIRD PLACE: Michael Cullen's *Gasteria* hybrid in bloom

- ★ HOW ARE WE DOING? DID WE GET IT RIGHT?
- ★ IF THERE IS ANYTHING INCORRECT ON YOUR MAILING LABEL,
- ★ OR IF YOU HAVE CHANGED YOUR ADDRESS
- ★ PLEASE LET US KNOW!
- ★ MEMBERSHIP INFORMATION SHOULD APPEAR ON YOUR MAILING LABEL
- ★ PLEASE MAKE ANY RECTIFICATIONS BY CONTACTING:
- ★ ELIZABETH GLOVER @ (619) 264-6769
- ★ THE EDITOR'S, MICHAEL & JOYCE BUCKNER @ (619) 222-3216.

Don't Worry About All of the Angles: *Euphorbia tetragona* by Fred Keller

I recently removed a spent flower stalk from a bulb pan of *Haemanthus albifloss*, that I had purchased from Albert Krejci in the early 1960's. This brought to mind another plant acquired from the same source, obtained after his passing: *Euphorbia tetragona*.

I had learned of Mr. Krejci from Dave Verity of UCLA. As I recall, Dave had recommended him as a source for stapeliads. The recommendation proved to be a good one as Mr. Krejci had a large stock of stapeliads, accurately named and reasonably priced. He was a prolific propagator, who seemed to continually divide his plants, much like the famed painters of the San Francisco bridges. His plants seemed to thrive in the re-rooting process resulting in an abundance of plant stock produced with a low overhead.

His low prices were based upon a low capital investment. Mr. Krejci did not have a heated greenhouse, instead he got by with judicious watering and covering bench stock with newspapers during the freezing winter weather that occurred in the San Fernando Valley. His price schedule was resented by some dealers. I recall his mentioning, with some sadness, that he was *persona non grata* at Johnson Cactus Gardens, who would not deal with him. Mr. Krejci was, however, a good friend of the Hummels; it was through him that I gained entrance to their nursery.

During one of my last visits to Krejci's Nursery, I learned that Mr. Krejci had passed away. His widow was in the process of liquidating the stock. She was experiencing some difficulty, since the plants were usually not labeled — instead, Mr. Krejci would label each row of propagules. This system worked quite

well for someone with Mr. Krejci's expertise. His wife, however, had no basis for assurance that a label had not been misapplied. I was looking over the euphorbias and discovered one labelled *Euphorbia tetragona*, yet the stems appeared to be mainly five angled. With the arrogance of ignorance, I questioned the identification, pointing out the five angled stems and asking if this plant was perhaps *Euphorbia pentagona*? Mrs. Krejci quickly reacted to my question by changing the label to *Euphorbia pentagona*, because of the seeming logic of my question.

Upon returning home I checked the plant description in **The Succulent Euphorbiae** by White, Dyer and Sloane. I was surprised to learn that *Euphorbia tetragona* did indeed have variable stem angles. I realized that one should exercise particular care in verifying whether the plant bearing this label actually represents this species. Now I am relatively sure that the plant which I purchased from Mrs. Krejci most nearly conforms to the description of *Euphorbia tetragona* to my untrained eye, and was probably not *Euphorbia pentagona*. It is interesting to note that in the article of "The Succulent Euphorbias of the Southeastern Cape Province" by Gerhard Marx, from the **Euphorbia** volume 9, *Euphorbia tetragona* is described as having four angles without further elaboration, even though mention is made of stem angle variability in *Euphorbia pentagona*.

I guess that I may never know the identity of my plant with full certainty. Yet I now value this plant for, among other things, the lesson learned: plant identification can be far more complicated than appearance might indicate.

SUCCULENT OF THE MONTH: *ADROMISCHUS*

by Phyllis Flechsig

Some lovers of succulents are enchanted by fiercely armed plants, some by gorgeous flowers, some by a thickness of stem that indicates great age; but some of us are really delighted by plants that look good enough to eat. If you are of this last persuasion, then *Adromischus* is just what you are looking for. It doesn't hurt that the plants are permanently small, have pretty (if not really showy) flowers, often have thick or tuberous roots, and are easily propagated from leaves.

It is these leaves that are the real draw: oddly shaped, interestingly marked, sometimes (you might think) dipped in coarse sugar, and endlessly variable.

An *Adromischus* (the name means "stout stalk") is a small shrublet, native to South Africa's Cape Province or Transvaal, with persistent leaves arranged in a spiral on the main stem and a spike of small upright flowers with five fused petals. Flower color is usually white to pink to lavender, except for *A. phillipsiae*, where the flowers are orange and hang down; there is some controversy as to whether this species really is an adro. Some adros were originally described as cotyledons, and many new species were named over the years since the genus was first described in 1852. In 1978 Helmut Tölken revised the genus, divided it into five sections according to flower form, and combined, or "lumped," many species. After much study he had to conclude that some species were extremely variable in leaf shape; for instance, he combined *A. hallii*, *A. geyeri*, *A. kubusensis*, *A. blosianus*, *A. antidorcatum*, *A. alveolatus*, *A. herrei*, and several others into *A. marianae* and its varieties. As a result, just about any adro with spindle-shaped leaves, plain or fancy, rough or smooth, can be confidently termed *Adromischus marianae*. All members of this group are well worth owning; they are all very attractive. Other, well-known species are such ones as *A. cooperi* (*A. festivus* is a synonym), with fat leaves mottled with dark red; and *A. cristatus* with green leaves that have wavy edges. *A. leucophyllus* differs from

all other adros in having flat leaves that are completely white.

Adromischus are fairly easy to grow and to propagate. Bear in mind that many come from winter rainfall areas of South Africa and therefore want winter water. To start a new plant, twist off a leaf; dry it a few days, lay it on a pan of soil with the stem end inserted just a little way into the soil, and it will do the rest. Do not remove the original leaf until it has dried up.

Literature consulted:

Pilbeam, John. **The complex *Adromischus marianae* complex.** Cactus File, v. 1, no. 2, Aug. 1991, pg. 4.

Tölken, H. R. **New taxa and new combinations in *Cotyledon* and allied genera.** Bothalia, v. 12, #3, pg. 377.



Adromischus cooperi (Baker) A. Berger



Adromischus kubosensis Uitewaal

GYMNOCACTUS, THE NAKED TRUTH

by Tom Knapik

Gymnocactus represents a small attractive group of plants found mostly in limestone and gypsum soils of the Chihuahuan Desert at elevations of 800 - 2250 m. They have no scales of hairs of the ovary and fruit and are therefore 'naked'. This was a distinguishing character for Backeberg who named the genus in 1938. Since then, more species have been discovered and the relationship to other genera investigated by several botanists (Anderson 1986, Glass & Foster 1978, John & Riha 1981/83)

The genus *Thelocactus* was the original source of 3 species of *Gymnocactus* separated out by Backeberg. His justification was based on their small size, possession of tubercles instead of ribs, flowers which arose from areoles instead of a groove, and the naked fruits. The fruits have been described as baccate (berry like) and at maturity dehisce vertically along their entire length. At the time few botanists agreed with the separation. In 1951 Backeberg added 5 more species to the list and another 4 species in 1961. Two were removed in 1966 by Backeberg himself leaving the following species in the genus; *G. saueri*, *G. knuthianus*, *G. viereckii*, *G. gielsdorffiana*, *G. subterranea*, *G. horripila*, *G. mandragora*, *G. valdeziana* (now in *Turbinicarpus*), *G. ysabelae*, *G. beguinii*. Glass and Foster gave their support to the genus and added 2 more species *G. roseanus* and *G. aquirreanus* which upon further investigation most likely belong in *Escobaria* (Taylor 1978). They also named 2 new varieties *G. viereckii* var. *major* and *G. subterranea* var. *zagarosae*.

Anderson's thorough analysis of the genus in a 1978 article emphasized natural classifications are based on similarities rather than differences and that *Gymnocactus* should be placed back in *Thelocactus* as a subgenus. After 7 more years of research, Anderson concluded in 1986 that *Gymnocactus* should be placed in a more broadly defined *Neolloydia* genus which includes *Normanbokea*, *Turbinicarpus*, but not *Thelocactus*! Apparently, of the 26 diagnostic characters used, *Thelocactus* shared the fewest with the other genera. The 1992 cactaceae checklist published by Kew Gardens does not recognize this approach though. Their support is for the work by John & Riha (1981/83) which places the known species of *Gymnocactus* within the genus *Turbinicarpus*.

I am not qualified to settle these taxonomic battles but I do know these plants are wonderful to grow. Their small size, green to bluish epidermis, black and white spines, small pretty flowers, and easy of culture make them a welcome addition to any collection. With only 8

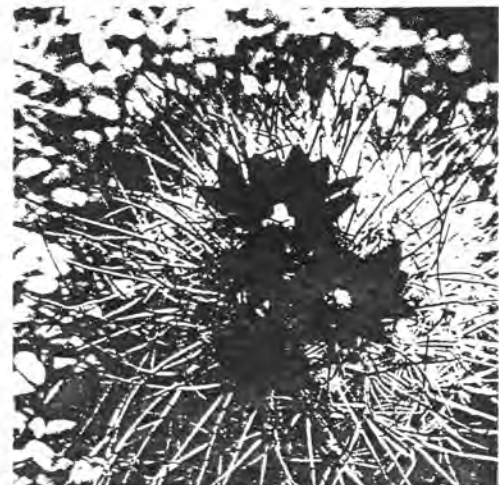
species and 2 varieties so far, obtaining all of them is possible and rewarding. Below is a modified key to the species done by Anderson in his redefinition of *Neolloydia*. I have only included those species traditionally known as *Gymnocactus*.

General characters: areolar groove absent or poorly developed, fruits usually with persistent perianth, at least somewhat fleshy at maturity, seeds with an even lip on hilum.

1. Roots long and tuberous2
 Roots not long and tuberous4
2. Central spines 10-15mm, radial spines 16-25,
 perianth magenta or brownish-yellow3
 Central spines 18-22mm, radial spines 8-14,
 perianth seg. white with reddish midribs**G. mandragora**
3. Offsets initially very wooley**G. subterranea v. subterranea**
 Offsets with naked areoles**G. subterranea v. zarogosae**
4. Spines 8 or more at each areole.....5
 Spines 8 or fewer.....**G. gielsdorfiana**
5. Central spines 3 or more, stems both single and clustered6
 Central spines 3 or fewer, stems either single or clustered
 but not both.....7
6. Flowers white.....**G. viereckii v. major**
 Flowers deep magenta**G. viereckii v. viereckii**
7. Flowers magenta.....8
 Flowers white or pinkish.....9
8. Central spines 1, stems often clustered.....**G. horripila**
 Central spines 2-3, stems usually single**G. smithii**
9. Radial spines 15-20**G. knuthiana**
 Radial spines 7-14.....**G. saueri**

Note:

1. *G. beguinii* is invalid and applies to the species *G. smithii*. A particularly spiny form is known as *G. beguinii v. senilis*.
2. *G. ysabelae* has no type designated and there is some confusion in its description so until more is known about its characters it is not placed.



References:

Anderson, E.F. & Ralston, M.E. 1978 A study of *Thelocactus* (Cactaceae) I. The status of the proposed genus *Gymnocactus*. *Cact. Succ. J.* 50(5):216-224.

Anderson, E.F. 1986 A revision of the genus *Neolloydia* B.&R. (Cactaceae) *Bradleya* 4/1986:1-28.

Glass, C. & Foster, R. 1978 Two new varieties of *Gymnocactus* from northeastern Mexico. *Cact. Succ. J.* 50(6):281-285.

Hunt, D. 1992 CITES Cactaceae Checklist Royal Botanic Gardens Kew, Whitstable Litho Ltd, Kent, England.

John, & Riha 1981/83 [Unkombinationen aus *Gymnocactus* in die Gattung *Turbincarpus*] *Kaktusy* 17:15-18, 19:22 (Trans. and publ. in Eggli 1984b.)

Taylor, N.P. 1978 Review of the genus *Escobaria* B.&R. *Cact. Succ. J. Gr. Brit.* 40(2):31-37.

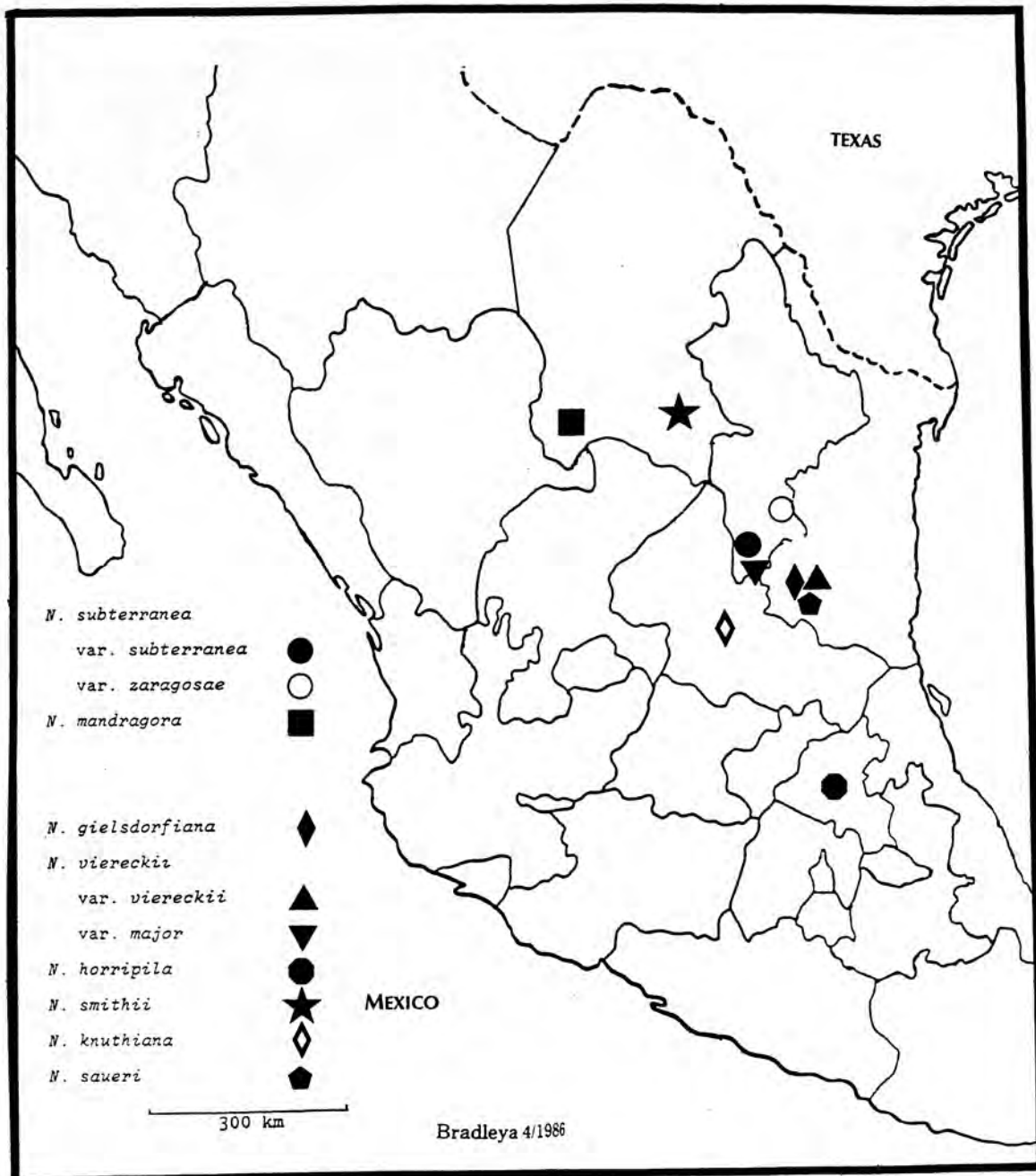


Fig. 38. Distribution of *N. subterranea* (var. *subterranea* = solid circle, var. *zaragosae* = hollow circle), *N. mandragora* (square), *N. valdeziana* (hollow triangle), *N. pseudopectinata* (hollow star), *N. gielsdorfiana* (solid diamond), *N. viereckii* (var. *viereckii* = solid triangle, var. *major* = solid inverted triangle), *N. horripila* (octagon), *N. smithii* (solid star), *N. knuthiana* (hollow diamond), and *N. saueri* (pentagon).

**"Only the mistakes are ours. In this world, beauty is common."
Jorge Luis Borges**

WISE AND OTHERWISE

"Trend is not destiny."
René Dubos

***"New seed is faithful. It
roots deepest in the places
that are most empty."***
C. P. Estés

**"Leave it as it is. The ages
have been at work on it, and
man can only mar it."
THEODORE ROOSEVELT**



by Michael Buckner

As we lengthen and elaborate the chain of technology that intervenes between us and the natural world, we forget that we become steadily more vulnerable to even the slightest failing in that chain.

PAUL B. SEARS

MADAGASCAR may have been one of the last regions of the world to be colonized by humans. It is also one of the last regions to be discovered by the community of botanists and amateurs interested in succulent plants. The island was a French colony until the end of the 1950's and only very little was known outside of France. Madagascar is one of the breathtaking global centers of biodiversity and has attained international attention. In this "Lost World", plants and animals have become a living museum of evolution. It is currently estimated that possibly some 12,000 plant species occur in Madagascar and that about nine-tenths of all the plant and animal species are unique to the island. There is virtually no succulent collection today without at least some representatives of the fascinating flora of Madagascar.

— *Professor Dr. Wilhelm Barthlott, Director, Botanical Institute and Botanical Garden, University of Bonn, Germany.*

There are recorded 10,000 - 12,000 flowering plant species from Madagascar. However, we do not know how many species have been destroyed since colonization by humans in the 5th century AD. The original vegetation of Madagascar has been destroyed by nearly 80% and altered into secondary vegetation. It must be assumed that among the vanished species there were many that would have yielded insight into the evolution of the flora of Madagascar.

Another interesting plant of the rain forest is the "Étoile de Madagascar", the "Star of Madagascar", the orchid species with the longest floral spur, *Angraecum sesquipedale*. In order to successfully pollinate this remarkable orchid, a moth with a proboscis up to 30cm long evolved. The moth's existence had been predicted by Charles Darwin before the insect was discovered. Darwin based his prediction solely on the length of the orchid's floral spur. For that reason, the moth is named *Xanthopan morgani praedicta*, the "predicted one".

The vast areas of grassland, which today cover the Central Plateau, are burned every year just before the start of the rainy season. The cattle cannot feed on the old, hard grass shoots. When the rains come, the burned grass tufts rapidly develop fresh tender leaves — excellent fodder for cattle. The grasslands become fresh green in color.

In the dry, semi-arid regions, the xerophytic, spiny *Didiereaceae-Euphorbia* bush cannot be burned. Fires cannot spread in the sparse leaf litter, so grasses are not present. However goats can eat the green leaves and shoots of *Didiereaceae* in spite of the sharp spines.

In concluding, we can state that human activities have completely changed the primary vegetation in most parts of Madagascar. H. Humbert wrote in 1927, "From the day when man entered Madagascar, the forest which once covered the entire island was gradually replaced by prairie, savanna and savoka, types of different vegetation which occupy today nine-tenths of the surface of the island." We further comment that the survival of the Madagascar flora and fauna is dangerously imperiled if humans continue burning and practicing present agricultural methods. We must mobilize all efforts to save what is remaining. French biologist such as Perrier de la Bâthie, Humbert, Paulian, Millot, Morat, Bosser, and others who have lived and worked for many years in Madagascar, have incessantly warned of the dangers. They also realize that the damage already done cannot be repaired, and that the creation of nature reserves is not enough. Too many species that could have provided information on the origin and evolution of the Madagascar flora and fauna have disappeared forever. We are morally obliged to protect and to conserve with all our power the last remains of this "sanctuaire de la nature".

All six of the paragraphs about Madagascar were taken from **SUCCULENT AND XEROPHYTIC PLANTS OF MADAGASCAR**, volume one, by Werner Rauh, c. 1995, Strawberry Press, Mill Valley, pages 9, 15, 28, 49 and 69, respectively.

"Only the mountain has lived long enough to listen objectively to the howl of the wolf."

Aldo Leopold from **Thinking Like a Mountain**

*A special note to the Uncles: "Worthless William", nice letter, we'll be writing soon
 . . . and Uncle John, hope you are on the mend and getting stronger everyday!*



ADDRESS CORRECTION REQUESTED

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Espinas y Flores

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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 \$10.00 per single member per year, \$5.00 for each additional member within the same household. Single copies of *Espinas y Flores* are \$1.00 per copy sent within the USA; foreign subscriptions are \$20.00. Affiliated with the Cactus and Succulent Society of America, Inc. Fax available - please call editor at (619)222-3216 for number.

SDCSS ROSTER / MEMBER SURVEY

The San Diego Cactus and Succulent Society will be producing a membership roster of current members. Those that receive complimentary copies ('comp') will not be included on the roster. All members will be included on the list by name only, unless you tell us otherwise. In other words, if we receive no response then your name(s) only, will be listed as it appears on the mailing label. If you do not want to be listed on the roster please fill in your name and check the box below. For more information please read the Presidents Message for March, 1996, in the newsletter (and read about the incentive for completing this form). The member survey on this form will aid the executive board in planning the direction of future club activities. Please take some time to fill out the information and get it to us as soon as possible. *Thank You!*

SDCSS Roster Information -

Name (PLEASE PRINT): _____ do not list me /us in the roster

IF YOU WANT OTHER INFORMATION LISTED IN THE ROSTER PLEASE FILL IT IN BELOW (OPTIONAL):

Address: _____

City: _____ State: _____ Zip: _____ Telephone: () _____ - _____

Other Information: _____

SDCSS Member Survey -

1. How many years have you been a SDCSS member: _____ What year was that? _____

2. How did you find out about SDCSS: _____

3. Why did you join the club: _____

4. What do you like about the current meeting format? _____

5. What would you suggest as changes: _____

6. What would you like to see more of in our program selection?

Educational _____ Travelogues _____ Growing Tips _____

Propagation _____ Hands On _____ Scientific _____

Related (Bonsai, Pest Control, Native Plants, etc.): _____

Other (*be creative*) _____

7. On the back of the newsletter is a listing of the executive board and committees, which of these interests you (*this is not a commitment to serve*): _____

8. If you were in charge of one special event for the club, what would it be? _____

9. Can you think of an activity that is missing from our club? _____

10. Are you a member of the CSSA? _____

11. Are you a member of other Cactus and Succulent Clubs?

If more than one please list them: _____

12. What do you most value from your membership activities with SDCSS?

13. Do you have any other suggestions for the club?

Thanks for your time and comments!

SDCSS Board and membership committee.

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stamp
here



THE SAN DIEGO CACTUS & SUCCULENT SOCIETY
P O BOX 33181
SAN DIEGO CA 92163-3181

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MORE ROOM IF YOU NEED IT ...



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