

Espinas y Flores

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

Volume XXII, Number 11

November 14, 1987

NOVEMBER MEETING

Saturday November 14, 1987

1:30 PM

ECHINOCEREUS EXCURSIONS WITH WOODY MINNICK

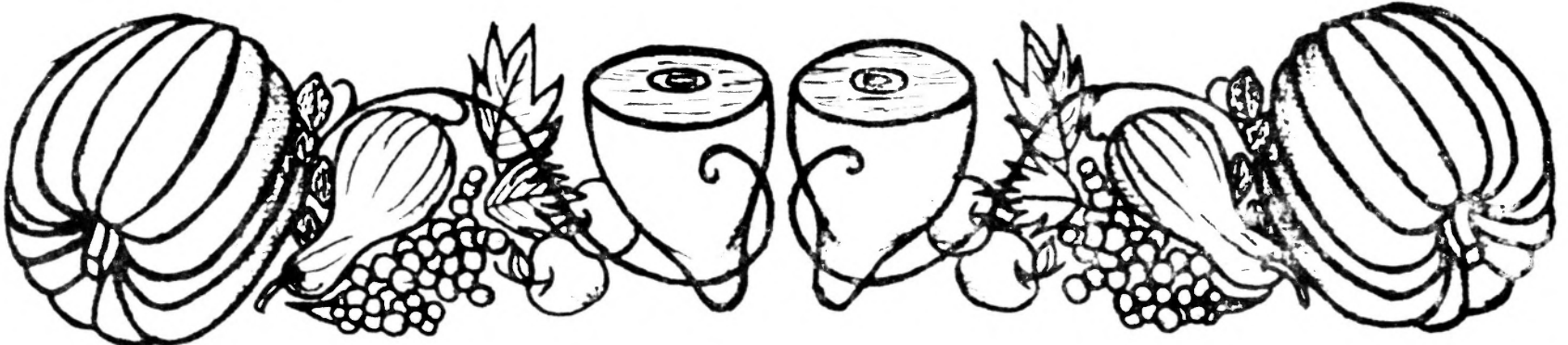
Woody Minnick is owner of Cactus Data Plants of Littlerock, California. He has shown hundres of plants and has won many trophies at the CSSA Shows in Arcadia. He is a show judge and an expert on Mammalaria. This is sure to be an informative and interesting program.

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DEADLINE FOR THE DECEMBER MEETING NOVEMBER 25. Thanks for getting all copy in on time even with my crazy deadline dates for this month. Mary



NEWS NEWS NEWS - - - -

Thanks to Tom DeMerrit and Mike Cullen for their help in cleaning up the room after the last meeting.

The following have signed up to help after the November meeting:

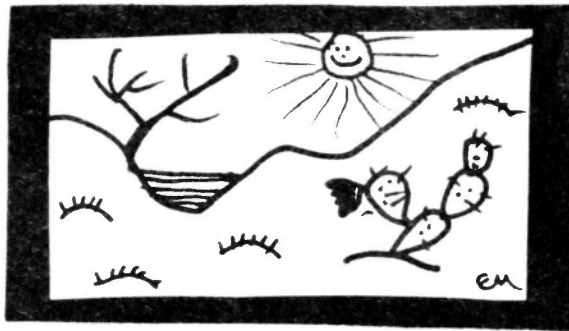
Bill Crowley, Harry Bailey, Frances J. Nardi, Mike Cullen, Mary E. Holman.
Sandy Frost - Clean-Up Chairman

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Those who have signed up to bring refreshments to the November Meeting are:

Danna Couchman Mark St.Clair Diane Crowley Olga Holtzer
Teresita Lime Judy Hannula Amna Cornett Dana Adams Joan Miller
Chloe Bajwa Susan Barker Verna Pasek Reed Pierce
Mary Ann Alexanderson

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THE LONG BEACH CACTUS CLUB
ANNOUNCES:

THE ANNUAL PLANT AUCTION
NOVEMBER 22, 1987 SUNDAY 1PM

AT THE HOME OF BOB AND SHARON THOERNER
15549 Ryon Avenue - Bellflower, CA
213-866-1555

WONDERFUL PLANTS FROM SOME MASTER SO. CAL GROWERS

REFRESHMENTS PROVIDED

MR. JACQUES de TISNE, AUCTIONEER EXTRODINAIRE



SHOW SCHEDULE FOR THE REST OF THE YEAR

Oct. 31-Nov. 1	San Diego Tropical Fish Soc. 17th Show	Sat: Noon-6:00pm	Sun: 9am-4:30pm
Nov. 22	Sumi-e Painting & Ikebana 12th An. Show		Sun: 11am-4:00pm
Dec. 4-5-6	San Diego Floral Assoc. Christmas Show	Fri: 5pm-9:00pm	
	(Christmas on the Prado)	Sat: 11am-9:00pm	Sun: 11am-4:00pm

SUCCULENT OF THE MONTH

CEROPEGIA

by Phyllis Flechsig

There is a small but enthusiastic subgroup of collectors of succulent plants who are mad about odd, intricate flowers--and few are odder or more intricate than the flowers of the genus Ceropegia. Though they are not really colorful, being usually red-brown, green, or velvety dark purple, their strange shapes are endlessly fascinating. Think of Chinese lanterns, old-fashioned chimney pots, or little cages--the flowers have been described as being like all these things. All have a long tube at the base, with the reproductive structures hidden at the bottom; most have fine hairs or bristles inside the tube, often outside as well, and the whole is surmounted by a fantastic superstructure of lobes that are usually joined at the tips.

Ceropegia (the name means "wax fountain") is a genus in the large milkweed family (Asclepiadaceae). There are about 160 species in the genus, occurring throughout Africa, the near East, the Canary Islands, India, the far East, New Guinea, and even northern Australia. Many Ceropegias are not succulent and most are not even in cultivation. Many are vines, though some have stiff stems, erect or prostrate. Leaves are opposite, often large and fleshy, sometimes minute on fleshy stems or present only on new growth. Roots vary from fat tubers to thick fusiform to fibrous.

The downward-facing hairs inside the tube serve a purpose in pollination: a tiny insect crawls down the long tube, then finds he can't get out because of the hairs on the tube; while his stay inside the flower is enforced, he crawls about, inadvertently depositing on the stigma some pollen from another plant and picking up a fresh batch; then the aging flower wilts, allowing him to escape, and (because insects are not bright) he flies to another plant and starts the process all over. That, at least, is the theory.

As with many other plant groups favored by collectors, there are species that are easily grown and other species that are a real challenge. Needless to say, it is the difficult ones that are most in demand and hardest to come by. All of us are familiar with C. woodii and its variants, the popular "heart vine" (for the heart-shaped leaves) or "rosary vine" (for the little tubers that appear along the thin, dangling stems). For all its commonness, this plant makes a very attractive hanging basket in light shade.

In the intermediate group (less commonly grown but quite showy and not difficult) are such plants as C. distincta ssp. haygarthi, with really strange flowers that have a sort of hairy pompom on top; C. sandersonii with large parachute-shaped flowers; and C. stapeliiformis, with large, open purple and white flowers that have long prongs at the tips instead of the usual cage-like arrangement.

Somewhat less easy, but not bad if you remember to leave it dry while it is dormant, is the small C. rendallii, which has a tuberous root, an annual vine, and covers itself in summer with cute little parachute-shaped flowers. This plant can be propagated from the many tubers it produces underneath itself in the soil, or from seeds (it is self-fertile).

On the difficult end of the spectrum are such plants as C. devecchii from Ethiopia and Yemen, and the closely related C. variegata from Arabia. Both are vines with thick, smooth stems and wonderfully elaborate flowers.

Most Ceropegias grow up through bushes in the wild, and so need light shade and excellent drainage. The stick-like species from the Canary Islands will stand full sun near the coast; they go relatively dormant in summer, flowering very profusely in spring and fall. These are best propagated from cuttings in late winter. The vining types can also be propagated from cuttings in warm weather--bottom heat helps--or from division of tubers. Seeds are sometimes available, and most species grow easily from seed.

LITERATURE CONSULTED

- Dyer, R. A. 1983. Ceropegia, Brachystelma and Riocreuxia in Southern Africa. A. A. Balkema, Rotterdam, Netherlands.
- Bruyns, P. V. 1984. Ceropegia, Brachystelma and Tenaris in South West Africa. Dinteria, 17: 3-80.
- _____. 1985. Notes on Ceropegias of the Cape Province. Bradleya, 3: 1-47.
- Jacobsen, H. 1974. Lexicon of Succulent Plants. Blandford, London.



Cactus-of-the-Month

THE 'BAJA BARRELS'

(The Ferocacti of Baja California)

By Dorothy Dunn

The Ferocacti of Baja California account for roughly one-half of the species and varieties recognized in the genus Ferocactus. In the opinion of some -(including this obviously biased writer!) - they comprise the better - and more interesting - half.

Dr. George Lindsay, in his dissertation The Taxonomy and Ecology of the Genus Ferocactus (1955), discussed about 35 species and varieties. Seventeen of these are native to Baja California and, significantly, all but three are Baja endemics. Some of these endemics are confined to extremely limited ranges; a few occur on only one particular island. They are found at elevations ranging from sea level up to about 5,000 feet and appear able to at least tolerate quite a variety of soils, although their preference seems generally to be for rocky slopes and hillsides. Climatically, their limitations are determined primarily by "too much cold" or "too much moisture". In size they range from the small, squat Ferocactus fordii to the massive, spectacular F. diguetii, which is the largest species in the entire genus. Their spination is often wild and extremely colorful and their flowers are large and beautiful.

The northernmost species of Ferocactus occurring in Baja California is Ferocactus viridescens, which also grows right here in San Diego County as far north and inland as Rancho Bernardo near Escondido. This is not a desert species; it grows in coastal chaparral in areas which average about 6 to 12 inches of rain annually. Its range extends down into northwestern Baja to just below San Quintín, which is about 190 miles below the border. This is a small barrel; it has greenish-yellow flowers and blooms when fairly small.

Ferocactus acanthodes is another species native to San Diego County, as well as a small north-eastern portion of Baja California. In contrast to F. viridescens, this one can attain impressive proportions - up to nine feet tall and at least a foot across - and is usually wildly-spined, with long twisting reddish to yellow spines. The flowers are large and clear yellow. This is strictly a desert species; it seeks the hot, arid, inland desert regions as its habitat and is the 'barrel' you encounter throughout the Anza-Borrego Desert. Its variety rostii occurs in San Matías Pass in northern Baja California, along the road which connects Ensenada with San Felipe on the Gulf of California. Although many authorities do not recognize this as a separate variety of F. acanthodes, it is a very distinctive plant with its long beautiful antique-gold spines, and specimens encountered in the wild are magnificent. It also occurs along Highway 80 in San Diego County just east of Jacumba and in the Anza-Borrego Desert.

With Ferocactus fordii we come to the first of the true Baja endemics. This species is most common along the coastal mesas between San Quintín and El Rosario, although small populations strongly resembling F. fordii have been found much further south. It has some unique features, both good and bad. One is the flower color, which is a deep orchid-rose shade - quite unusual in the genus. Another is that the plants will generally bloom when very small - a plant 3" in diameter is a blooming-size plant. The bad news is that F. fordii is subject to attack by borers which hollow out the central meristematic tissue of the plants and eventually kill them. This appears to be a unique problem in this genus. There is a variety grandiflorus which occurs further south, has a taller growth habit and orange-red flowers instead of purple. This plant I have never seen in the wild.

Just south of El Rosario, about 250 miles below the border, as you begin to enter the bizarre wonderland of Idria and Cardón forests, and the vegetation becomes totally wild, woolly, and unreal, you encounter the first specimens of Ferocactus gracilis. This beautiful barrel has a wider range than many of the other Baja species. In the northernmost section of its range its form is stable and easily recognized, but as it progresses further south and begins to merge and intergrade with other species, varieties, and populations, it becomes extremely variable, and it is with great difficulty that you can point to a plant and say with absolute certainty "That is typical Ferocactus gracilis!" You find plants with pink spines, red spines, grayish spines, long thin twisting spines, shorter, wider, very hooked spines, and everything in between. If the plants happen to be in bloom, it simplifies things somewhat because the flower is a fairly constant factor. It is red, with a strong red mid-stripe and bright red stamens, and usually blooms June through August. Howard Gates, the legendary Baja explorer of the 1930's, first named this species gracilis because of its tall, slender growth habit - it is usually less than one foot in diameter, but can attain a height of nine feet or more. It ordinarily does not branch unless injured, but it is not uncommon to see magnificent multiple-headed specimens in the wild.

The range of Ferocactus gracilis is interrupted - rather unexpectedly - by the occurrence of F. acanthodes var. tortulospinus in the Laguna Chapala Seca area south of Catavina, along the Jaraquay Grade. This species is limited to quite a small area, and differs from the typical F. acanthodes in its squat depressed shape and duller grayish-red spine color. The body is always simple, and a very distinctive feature is the twisted and very long lower central spine - up to 7" in length - which accounts for the variety name tortulospinus. However, the flowers and fruit are indistinguishable from F. acanthodes var. acanthodes. This is the southernmost representative of the F. acanthodes complex (except for a very puzzling and somewhat controversial population in Calamajue Canyon) and, here again, although some authorities do not choose to recognize it as a separate variety, Dr. Lindsay feels that the unusual growth habit, consistent color and type of spination, and disjunct range, are sufficient reasons to maintain it as a separate variety.

Continuing south, about 20 miles south of Punta Prieta, Ferocactus gracilis var. coloratus makes its appearance. This variety is limited to about a 40-mile range between Punta Prieta and Miller's Landing near the Pacific coast, and differs from the typical variety in having somewhat shorter, broader spines, a little less red pigment in the corolla segments, and larger and more irregular seeds. A peculiar characteristic of this variety is that the lower central spine will often split lengthwise down the middle. This is another variable population which Dr. Lindsay believes may possibly be a hybrid swarm containing genetic material from several other species. Near the coast it grows among fantastic naturally bonsai-ed specimens of Pachycormus discolor, Bursera microphylla, Euphorbia misera, and Fouquieria diguetii.

A little further south, if you turn inland at the town of Rosarito and follow the dirt road leading to Misión San Borja, you begin to encounter scattered specimens of Ferocactus peninsulae. Although it is most prevalent in this central region of the peninsula, it occurs in one form or another all the way to the Cape Region. This is a handsome strongly-spined barrel with between 12 to 20 very prominent ribs and large satiny very beautiful flowers which are golden-yellow with a very pronounced red mid-stripe. In the remote and lovely Misión San Borja area it grows in association with a great diversity of other xeric vegetation. Further south and east, in the region of San Ignacio, F. peninsulae apparently intergrades with F. rectispinus, and some magnificently-spined specimens have resulted.

Ferocactus peninsulae var. vizcainensis occurs further south, below the 28th parallel, and differs from var. peninsulae in having shorter, stiffer, more tubular flowers, and shorter spines which somewhat resemble those of F. gracilis var. coloratus.

It is impossible to mistake Ferocactus rectispinus. It is the only Ferocactus on the peninsula with all straight spines, and the central spine can reach a length of 12 or 13 inches. It was long thought that this species was virtually extinct in habitat, but the recent opening of a new road into a formerly inaccessible area of the Sierra de San Francisco has revealed a large and spectacular population of both red and gold-spined forms of F. rectispinus. In this area it grows in association with probably the most mind-boggling diversity of vegetation to be found anywhere on the peninsula. It used to occur right at sea level around Conception Bay, and occasional specimens can still be seen at higher elevations in the Sierra de la Giganta. The flower is a brilliant clear yellow.

Ferocactus townsendianus occurs south of the 26th parallel in southern Baja and on San Jose Island in the Gulf, Magdalena and Margarita Islands off the Pacific coast, and as far north as the northern fringes of the Magdalena Plain. It's a small barrel, usually less than two feet tall, with about 16 spiralled ribs. It's closely related to F. peninsulae, and a few authorities consider it to be only a variety of that species. The variety santamaria is rarer, being known only from the rocky headland which forms Santa Maria Bay, where it grows with some other rare endemics including Agave margaritae, Cochemiea halei, and Wilcoxia diguetii.

The island species account for some of the rarest and most impressive of all the Baja Ferocacti. Probably the rarest of them all is Ferocactus gatesii, which occurs only on a few small barren islands in the Smith Island group in the vicinity of Bahía de los Angeles. It grows in granite rocks in a region of extremely limited rainfall in association with another endemic, Mammillaria insularis. The spination strongly resembles that of F. acanthodes, but the flowers are large and red, reminiscent of F. gracilis. The fruit is enormous and elongated and protrudes well above the top of the plant.

Another rare island endemic is Ferocactus johnstonianus, which is known only from Angel de la Guarda Island near Bahía de los Angeles - and it is scarce there. It grows among rocks under very arid conditions, and mature plants are very attractive, with intermeshed golden spines which almost hide the plant body and large yellow flowers. It attains a maximum height of about three feet.

Ferocactus diguetii, which also occurs on only a few islands in the Gulf of California, is the largest and - possibly - the most spectacular of all the barrel cacti. It can reach a height of 12 feet, it never branches, and the brilliant red flowers are almost hidden among the gold spines at the top of the plant. The variety carmenensis occurs only on Carmen Island and differs from the typical variety in being much smaller - usually only about three feet tall and about 15 inches in diameter.

Cedros Island, off the Pacific coast of Baja California, just north of Guerrero Negro, is the home of Ferocactus chrysacanthus. This very beautiful barrel is endemic to this one island, although Dr. Lindsay did report finding one specimen on West San Benito Island in 1948. Its size and spination apparently vary according to its location on the island. At higher elevations it is not as tall and the spines are duller, probably due to more moisture from fog. It's never a large barrel, rarely reaching much more than 3 feet in height, and the spine color varies a great deal, from almost white through straw-colored to red to deep brilliant gold.

Due, in part, to the high degree of endemism among the Baja Ferocacti, they comprise a unique and fascinating field of study in themselves. You can't help admiring a plant which has chosen for its niche, out of all the possible places on earth to grow, a small space in a difficult, often inhospitable place such as Baja California. It inspires in me a mixture of respect and affection for both the plants and their very special habitats.

Literature consulted:

Lindsay, George:	<u>The Taxonomy and Ecology of the Genus Ferocactus</u>
Taylor, Nigel P.	<u>A Review of Ferocactus</u> Britton and Rose
Wiggins, Ira L.	<u>Flora of Baja California</u>

**** DON'T FORGET ****

**ONLY REGISTERED MEMBERS OF OUR CLUB ARE
INVITED TO THE CHRISTMAS PARTY**

**** NO GUESTS ****

**\$5.00 Registration each member for the
Christmas party 13 December 1986.**

NAME: _____

NAME: _____



**** NOTE ****

Registration MUST be in by 1 Dec. 1986

**** COMPLETE AND MAIL TO ****

**Susan Shepherd; Treasurer
4537 Cochise Way
San Diego, Ca. 92117**

PLEASE NOTE: Everyone's dues are due by the end of the year. These are annual dues that come from January to January.

**SAN DIEGO CACTUS & SUCCULENT SOCIETY
MEMBERSHIP APPLICATION**

\$8.00 - Single member per calendar year

\$2.00 - Each additional member of same household

**** PLEASE PRINT ****

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PLEASE CHECK IF;

You are a new member

You subscribe to the Cactus & Succulent Journal

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There are no back issues of the Espinas y Flores available for late payment.

Killing Cactus and Other Succulents

Each of us has his favorite soil mix. And that should be a reminder to all of us that what works for one grower may not work for another. Frequency of watering, the kind of pot, the microclimate in which you live, the amount of light reaching the plant, all directly influence the success or failure of the soil mix.

All of which is by way of saying that allowing your new plant to remain in someone else's soil mix, a mix that works fine for the someone else, can be another subtle way of killing off your plant. Unless you are familiar with the new soil mix, you should immediately repot, changing the soil to your own as you do so. Commercial and other growers turn out great plants, but once the plants leave the particular environment and care that they have been receiving, their path may be only down hill if the soil is not suitable for your own cultural techniques. A mix may be so heavy with peat, for example, that those of us who allow our plants to dry out during the winter will without special and unusual effort never get the full earth ball wet again the next growing season. Or a nursery may carry plants from several different growers without having changed the soil which the original grower used. They may do fine with you for a while but after a bit the soils, having different moisture retention capabilities, may begin to reveal themselves by one or more of the plants going down hill.

What do I use? Well, after going through most things in the book and a few that weren't, the result is something close to the Grigsby mix, essentially pumice and humus. (I use Dave's name, without his permission, since many of us are familiar with his soil mix, but there are a number of other nurserymen who use much the same mix as he does.) The proportions have varied, with a tendency to add more humus as time goes on and as Beverly, who is hard-nosed about providing water to the plants, has taken over a good portion of the watering duties.

-Bob Kent

If you have any questions about the growing and propagation of plants, please feel free to send your questions to me and I will see that Bob gets them. Mary

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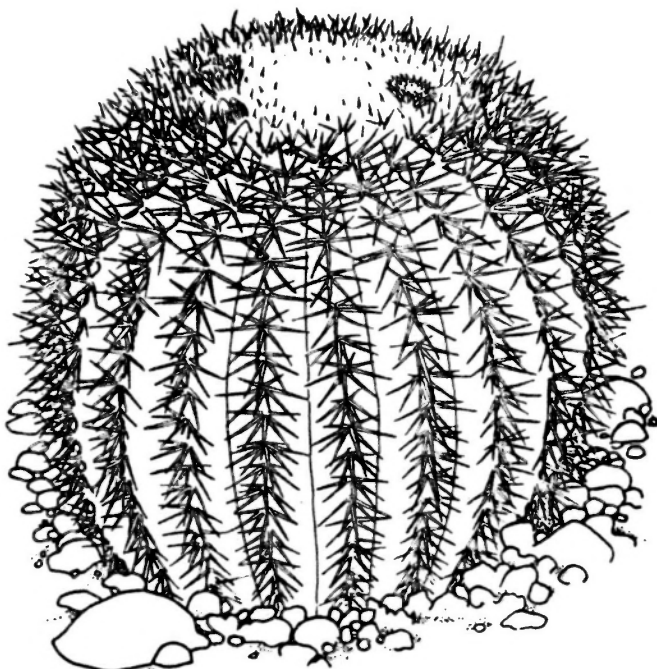
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The San Diego Cactus & Succulent Society is open to all persons interested in growing cacti, other succulents and exotic plants. Meetings are held the second Saturday of each month at 1:30 p.m. in Room 101, Casa del Prado, Balboa Park. Board of Directors meetings are held after the general meetings. Annual dues are \$8.00 per single member per year. \$2.00 for each additional member of a household within a family. Single copies of Espinas y Flores are 60¢.

Editor
Mary Aubuchon
1058 5th Avenue
Chula Vista, CA 92011



ECHINOCACTUS GRUSONII (Golden barrel cactus)

FIRST CLASS

FIRST CLASS