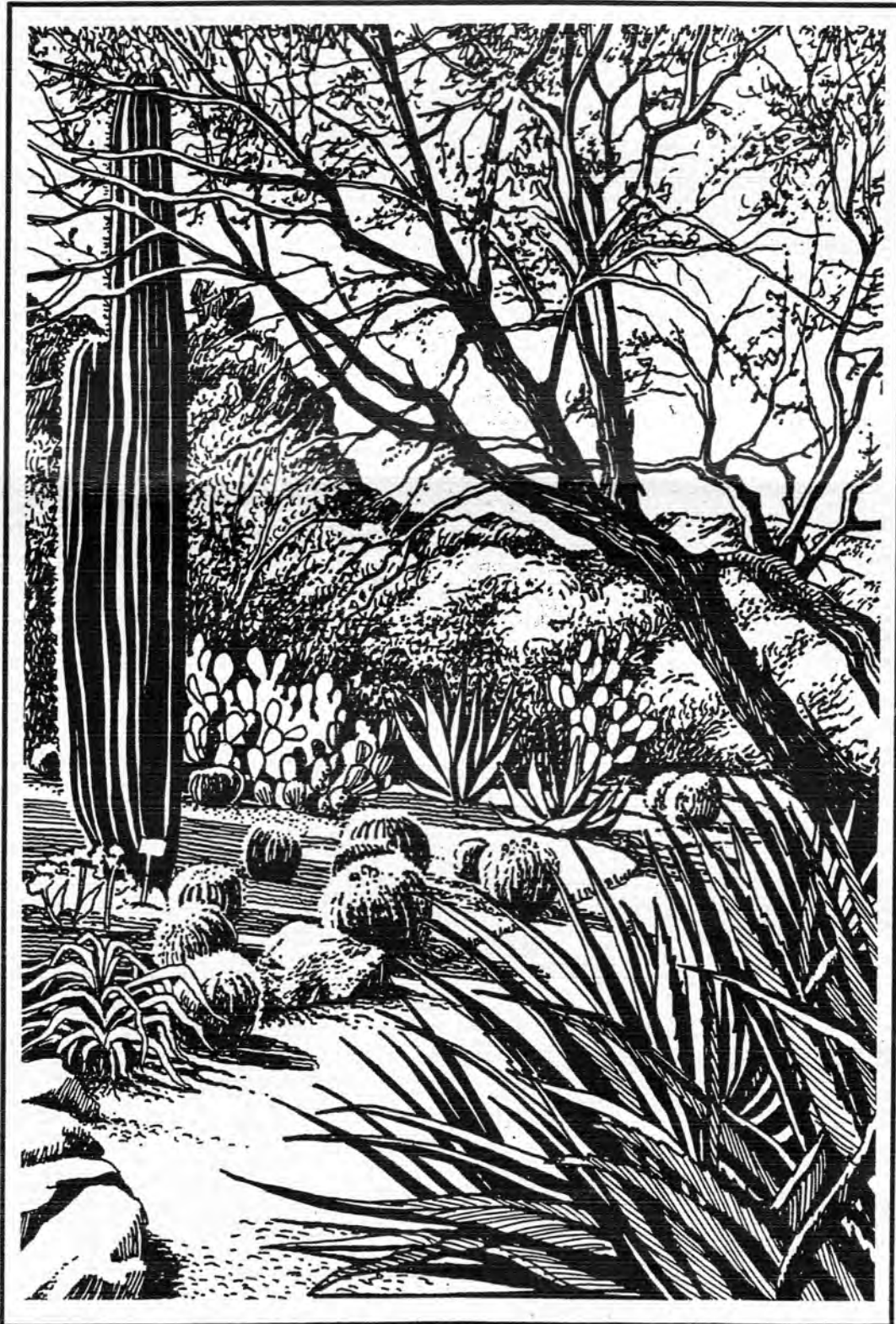


MAMMILLARIA THORNERI

# Espinas y Flores

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

VOLUME XXX NUMBER ONE, SATURDAY, JANUARY 14, 1995 @ 1:00 PM  
PRO PEOPLE ~ PRO EDUCATION ~ PROACTIVE



# Happy New Year!

**JANUARY PROGRAM:** The new year programs start with our own educator, plantswoman, and artist in residence, Dorothy Byer presenting "**Discovery Through Artistic Rendition**". Dorothy will take us through all of the steps of artistically illustrating succulent plants from nature in water colors and oils with her very personal interpretation from inspiration to finished painting. Don't miss this very entertaining program and bring an interested friend (and some refreshments, too, please).



## Please Renew Your Membership

**Membership:** Rick Latimer, (619) 697-4100. Dues are \$10.00 for single membership and \$ 5.00 for each additional member of same household (one issue of Espinas y Flores mailed). Checks should be made out to SDC&SS and sent to P.O.Box 33181, Hillcrest Station-102, San Diego, CA 92163-3181.

**Meeting Time:** Meetings are held the second Saturday of each month (except for June, September & December) at 1:00 pm in Room #101 - Majorica Room, Casa del Prado, Balboa Park. Come early for plant, container and supply sales and socializing. Board meetings are held at 11:00 am prior to general meeting - all members may attend board meetings if they wish to.



The Holiday Party was again a tremendous success - thanks to **Top Hat Catering** of Lemon Grove. Officers for 1995-96 are: Joey Betzler - president, Tom DeMerritt - vice president, Herb Stern - secretary, and Rick Latimer - treasurer. **Rick Latimer** also received a special "**Ten Year Service Award**" as Librarian for our society. Elizabeth Athy and Amna Cornett have now taken over the library duties. **Rick Plant** received our "**Volunteer of the Year Award**" for the many, many, many hours he contributed to making our organization the success it is. We were very pleased to have selected **Beverly Kirkegaard** and **Rudy & Teresita Lime** as new **San Diego Cactus & Succulent Society Life Members** - congratulations.

If this issue looks slightly rushed and thrown together - you are absolutely correct. The editors took a long leisurely and well-deserved vacation over the Holidays. Points of interest included Death Valley (totally awesome) and the Anza-Borrego for New Year's Eve - once a desert rat - always a desert rat!!

Our front cover this month is "borrowed" from the cover of **The Boyce Thompson Southwest Arboretum Trail Guide**. The Arboretum in Superior, Arizona is a delight to visit. Our thanks to William Feldman PHD, who is director and a member of SDC&SS.



Now is that time of the year for those of us lucky enough to live in frost-free Southern California to enjoy the flowering beauty of what many people consider the "Junk Succulents": landscape Jades, Aloes, Agaves, Kalenchoes, and other Crassulas. The majestic Jade *Crassula arborescens* can now be seen blooming when most other plants are dormant. Let us not take these beautiful plants for granted for they really are very special. See if you can find some that are almost pure creamy white, or even better, hot hot pink! *Aloe arborescens* and *Aloe salm-dyckiana* are in full vibrant hot orange candles making large mass plantings a sight to behold. Look for the plumes of *Agave attenuata* arching over from their own weight laden with hundreds of individual flowers. There are many other Aloes, Agaves, and Aeoniums blooming even as it rains down (thankfully). Be thankful that you are not outside shoveling the snow out of the pathway to your greenhouse!

The NINTH ANNUAL DESERT RESEARCH SYMPOSIUM will take place May 19-22, 1995 at the San Bernardino County Museum, Redlands, CA. To receive information call (909) 798-8570, fax (909) 798-8585. Topic will include geology, paleontology, geomorphology, anthropology, botany, ecology, zoology, history, and multi-disciplinary studies in or related to the California deserts. There will be two field trips.



DEPARTMENT OF VETERANS AFFAIRS  
Medical Center  
3350 La Jolla Village Drive  
San Diego CA 92161

December 15, 1994

In Reply Refer To: 664/135

Michael Buckner  
San Diego Cactus & Succulent Society

Dear Mr. Buckner,

It is indeed a pleasure to thank you for your active support of this Medical Center with donations of plants for our annual VAVS Bazaar from members of the San Diego Cactus & Succulent Society. On behalf of the patients, volunteers, and staff of this Medical Center, please accept our appreciation for your donations.

Your interest and concern are much appreciated.

Sincerely yours,

Leonard C. Rogers  
Medical Center Director





**LETTER TO THE CLUB FOR THE ESPINAS Y FLORES NEWSLETTER**

*To my fellow members,*

*Since I became the mother of our youngest member Shane, I haven't kept up with the tasks I used to do to help various clubs. In fact, I just show up to various events like the Christmas Party that seemed to all magically happen with the blink of an eye. Just this last Christmas of '94, after enjoying a deliciously prepared and presented meal, I was curious about all the work that had clearly been done for its preparation. After some inquiries I found that I would have liked to thank each contributor.*

*The list of these I'm sure must be long, however, some of the ones I found out about through my inquiries I'd like to commend for their donated weeks and days and nights as follows:*

*Gift plants - selected from all over Vista to San Gabrielle and procured by Michael Buckner many months in advance for this special event for the club. Michael, with help from Rick Plant and Rick Latimer this year has accomplished this for four straight years which also included cleaning and labeling them for many hours. This year Steve and Rowena Southwell along with Michael & Joyce spent their Friday night prior to the Holiday banquet cleaning and labeling all these accumulated gift plants all for the benefit of club members for the holiday season.*

*Auction plants - provided by Betty Athy, Michael Buckner, Tom DeMerritt, Woody Minnich, Rick Plant, Steve and Rowena Southwell, and others.*

*Staging Rocks - generously donated by Joan Fleer and kind heartedly hauled in by Tom DeMerritt.*

*Catering - planned and arranged meticulously by Michael Buckner with Top Hat Catering for the past four years. Prior to Michael making catering arrangements his father Warren was in charge of Holiday catering arrangements.*

*Drinks - an ample supply of different wines, beer, sodas, and soft drinks were purchased in advance by Joyce Buckner, as well as table cloths, napkins and candy for our enjoyment. Stefy Mangold and Laura DeMerritt helped distribute all the drinks and covered all the tables with table cloths.*

*The list of members and dinner payees list has been tediously maintained by Joyce Buckner and Laura DeMerritt. This list was utilized for membership election purposes as well as distribution of gift plants. Tom Knapik, Kelly Griffin, Sara Schell and Joyce Buckner manned the tables distributing coupons for gift plants and ballots.*

*Mostly, I would just like to thank any and all club members who have helped in the long history of this club for providing events, field trips, educational concepts, parties and picnics, and anything that brings recognition to our club. Sharing our "hobby" together is what is most important and these club members should be commended for supporting that effort.*

**FROM KARLA L. NOLAN (MEMBER) JAN. 1995 ISSUE**

## **Cactus of the Month: Arrojadoa** **by Edward Nolan PhD**

The genus *Arrojadoa* was created in 1920 by Britton and Rose and named in honor of Dr. Miguel Arrojado Lisboa, who was the superintendent of Estrada de Ferro Central de Brazil. Dr. Arrojado Lisboa conducted extensive botanical explorations of the semiarid regions of Brazil during the early 1900's and contributed a fair bit of knowledge pertaining to the cactaceae. Plants of the *Arrojadoa* were first described as species of the *Cereus* genus and two species, *Arrojadoa rhodantha* (Gurke) and *Arrojadoa penicillata* (Gurke) were originally identified, with *A. rhodantha* selected as the type species. The type localities are as follows:

*Arrojadoa rhodantha*

type locality; Caatinga de Sao Raimundo, Piauhy, Brazil

*Arrojadoa penicillata*

type locality; Calderao, Bahia Brazil

The number of species in the *Arrojadoa* genus has since then grown to six or more species and/or varieties. Besides the two species mentioned above, other species are:

*Arrojadoa aureispina* var. *aureispina* (Buining & Brederoo)

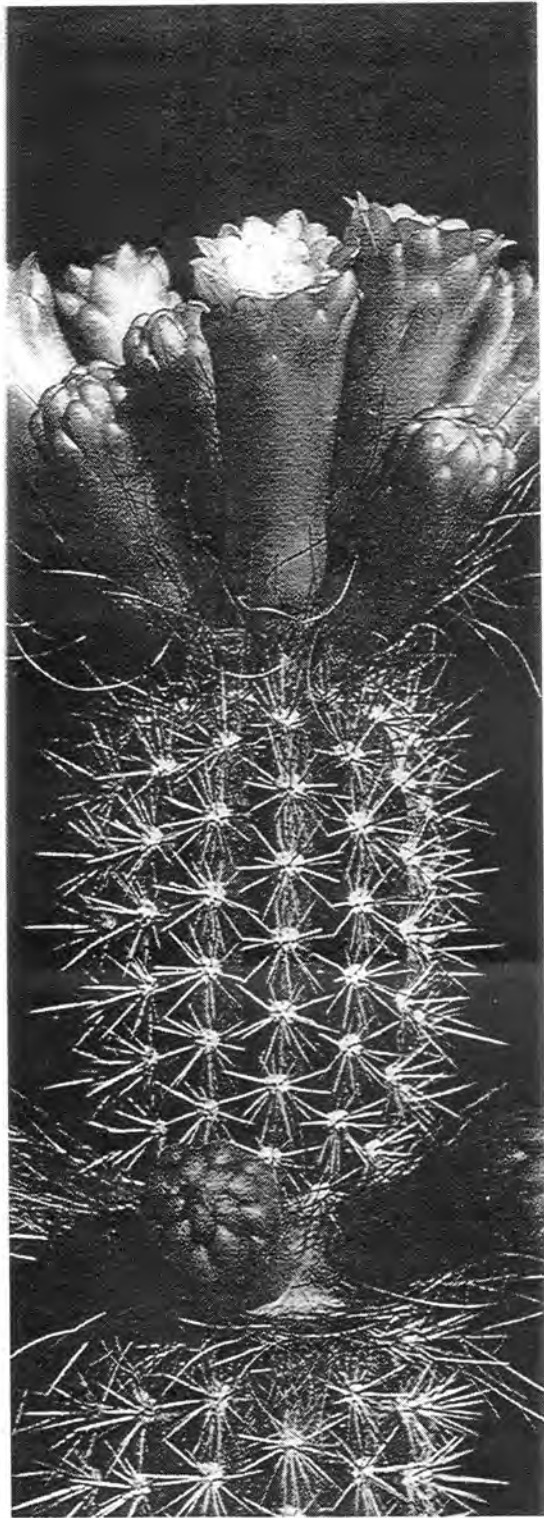
*Arrojadoa aureispina* var. *anguina* (Braun & Esteves)

*Arrojadoa aureispina* var. *guanambensis* (Braun & Heiman)

*Arrojadoa beateae* (Braun & Esteves)

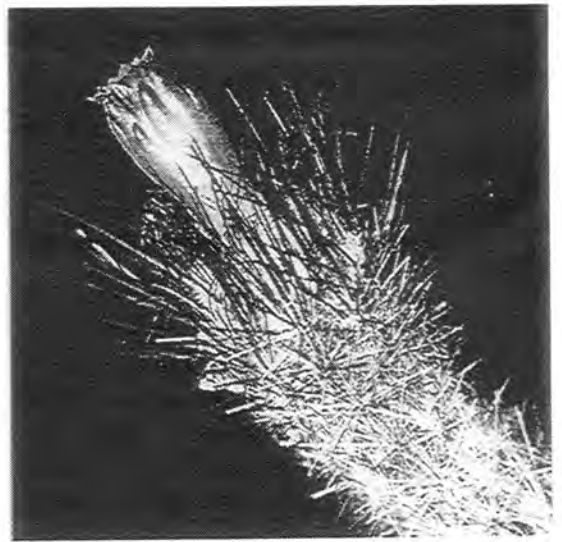
*Arrojadoa horstiana* (Braun & Heiman)

The *Arrojadoa* are described as slender stemmed, sparsely branching columnar cacti with 10 to 40 ribs. The stems, which measure up to two meters in length, are usually erect but can also creep depending on the species. The plants are green to dark green in color and have closely spaced areoles with up to 8 central and 12 radial spines that are quit thin. The most distinguishing characteristic of this genus is that it generates flowers from a terminal cephalium or pseudocephalium which forms at the end of the stem. The rather unique flowers are diurnal and vary from light pink to a very hot pink, almost red color and are small in size, usually less then 4 cm. long. The flowers are nearly cylindric with a short tube and the perianth segments are in several short erect rows. The flowers are produced from the very end of the stem, and emerge through the bristles and wool of the cephalium. Another unusual feature of the *Arrojadoa* is that new stem growth emerges through the old cephalium which in turn will form a terminal floriferous cepalum, which will then sprout new meristemic growth, etc., so that in time a single stem may have many "fuzzy elbows" of permanent cephaliums between growth nodes. To top it all off, flowers can often form on cephaliums produced 1-3 years previously, so the lower collars of fuzz often have bright pink flowers sticking out! These two traits used together (flower color and cephalium) provide the easiest means of identifying members of this genus.



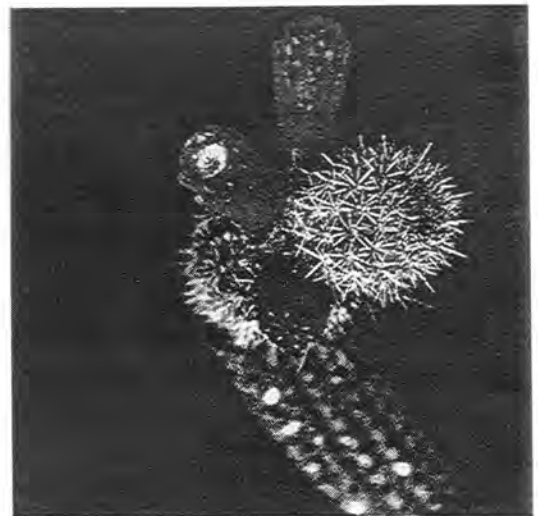
ARROJADOA **RHODANTHA** (Gürke) Br. & R.

An erect, often climbing plant to about 6' 2ft tall. The stems are more or less cylindrical, dark green, and 3/4-1 1/2in thick. There are 10-14 low-set ribs with areoles arranged about 1/2in apart. Spines are at first yellowish, then become brown, of which about 20 are radials and five to six centrals, all very similar at 1/2-1in long. Flowers arise in early summer from a brown, woolly, reddish-brown bristly cephalium. The blooms are tubular, pink and diurnal. Stems then continue to grow through the cephalium to form another flowering apex the following year. Very occasionally an unusual form occurs when the cephalium becomes cristated with bristles and wool running laterally on the stem. Requires full sun; normal cactus compost; minimum temperature 55°F. *Brazil (Bahia, Minas Gerais).*



ARROJADOA **BEATEAE** Braun & Esteves

An unusual species only discovered in 1987. It has more or less erect stems with about 10 ribs, many yellowish-brown spines, and bicolored flowers of rose pink and yellowish white arising from the terminal dark-brown spiny cephalium. Needs slight shade; normal cactus compost; minimum temperature 50°F. *Brazil (Minas Gerais).*



ARROJADOA **HORSTIANA** Braun & Heimen

One of the more remarkable species of the genus and a native of high mountainous regions. Stems are almost globular between the cephalia and carry only very short spines. Flowers are small, almost tubular in shape, purplish red, and day flowering in summer. Needs bright light; normal cactus compost; minimum temperature 50°F. Very careful watering is essential. *Brazil (Minas Gerais).*



## Cactus of the Month: *Arrojadoa* by Edward Nolan continued . . . .

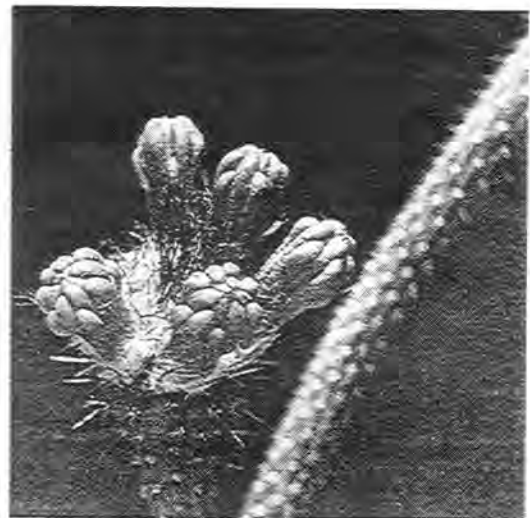
Inspection of the taxonomic keys devised by Britton and Rose and supplemented later by Taylor Marshall suggest that the *Arrojadoa* have no close allies, and in the original description by Britton and Rose the *Arrojadoa* is referred to as... "a peculiar genus" which I translate to mean "highly desirable". The characteristic of possessing a terminal cephalium through which new growth emerges is very similar to the monotypic genus *Stephanocereus*. The single species, *Stephanocereus leucostele* also has this same "collar" of bristles between stem segments but produces white, funnel-form flowers. None-the-less, *Stephanocereus* may be the most closely related living relative of *Arrojadoa*. In any case the *Arrojadoa* look much like your typical ceroid, only much smaller, and thus they seem to have been cheated out of their fair share of growth hormone or should I say growth auxin, (a bit of endocrinology humor,) come to think of it, what makes tall plants tall anyway? oh, nevermind. This diminutive trait, I believe, makes them all the cuter and more desirable, (it also means they take up much less room in the green house.

The *Arrojadoa* occur exclusively in the northeastern regions of Brazil, in areas such as Piahy, Bahia, and Minas Gerais where they grow amongst shrubs. These regions receive rain in a seasonal manner during the warm summer months and may be very dry during their mild winter. This suggests that the *Arrojadoa* will do well with warm moist treatment during the growing season and a much less wet rest in our winter. (i.e. typical cacti culture). A bit of difference is that the winter rest may be very brief or even non-essential as my plants of this genus seem to flower most of the winter and still enjoy the humidity of the greenhouse.



ARROJADOA AUREISPINA var.  
GUANAMBENSIS Braun & Heimen

An erect to creeping species with stems to about 1ft long and 1 1/4in thick with 10-11 ribs bearing many brownish spines to 3/4in in length, including five to seven centrals. Flowers are diurnal in summer, deep rose pink and 1 1/4in long. Requires filtered light; normal cactus compost; minimum temperature 50°F. *Brazil (Bahia)*.



ARROJADOA PENICILLATA (Gürke)  
Br. & R.

A bushy, clustering species with semi-erect or prostrate stems up to 6 1/2ft in length, about 1/2in in diameter, with 10-12 shallow ribs. Spines are yellowish, eventually gray, consisting of eight to twelve radials and one or two centrals from 1/2-1in long. Flowers appear in clusters from a reddish-brown, bristly cephalium in summer, and are diurnal, bright deep pink, 3/4in long and across. Needs good light; normal cactus compost; minimum temperature 50°F. *Brazil*



## SUCCULENT OF THE MONTH: MEDUSOID EUPHORBIAS by Phyllis Flechsig

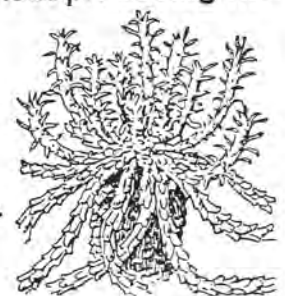
In Greek myth, Medusa was a Gorgon, a monster whose hair was made of writhing snakes and whose glance instantly turned any human to stone. The hero Perseus vowed, for rather foolish reasons, to slay Medusa, and after many difficulties arrived in the Gorgons' country equipped with a shield presented to him by the goddess Athena, an unbreakable sword given him by Hermes, winged sandals, a magic wallet that would always become the right size and shape for whatever was put into it, and a cap that made the wearer invisible. Perseus was much encouraged by having the use of all this wonderful equipment, but how to avoid looking at Medusa while he was slaying her? The answer, Athena told him, was to hold up the shield like a mirror and view Medusa in it without looking directly at her. So using the winged sandals he hovered over the Gorgons while they slept: they had great wings, scaly bodies, and a mass of twisting snakes for hair. Looking only at the reflection in the shield, and with Athena to guide his hand, Perseus cut off Medusa's head with one stroke, hid it in the magic wallet, and escaped from the other two Gorgons by using his cap of invisibility. Many adventures later, Perseus arrived back at the palace of the wicked king who wanted to kill him and his mother, and pulled the head of Medusa out of the wallet in front of the king and all his courtiers, so that they were all instantly turned to stone. And (eventually) the hero, his mother, and his girlfriend Andromeda lived happily ever after.

What has all this to do with succulents? Well, two well known euphorbias are named E. caput-medusae (medusa's head) and E. gorgonis for their fancied resemblance to those heads covered with writhing snakes; and besides these, there are many other euphorbias built on the general plan of thick central disc with many radiating arms. Sometimes the arms are long and skinny, sometimes short and stubby, but the basic anatomy is the same. Many of these species are permanently dwarfed, and none reaches any great height; their flowers, properly called cyathia, can be quite attractive though never really showy; these cyathia vary a good deal from one species to another. A few of the species in this group are, besides the two mentioned above, E. inermis, woodii, esculenta, pugniformis, albipollinifera, flanaganii, fortuita, decepta, albertonensis, superans and so on and so on.

These plants are fun to grow; being small, they take up little room, and it is interesting to see how many variations on a theme one can acquire. They are generally easy to grow, though propagation must be from seed; an arm may root all right, but it will just keep growing in its original direction without producing the thick central trunk.

### LITERATURE CONSULTED

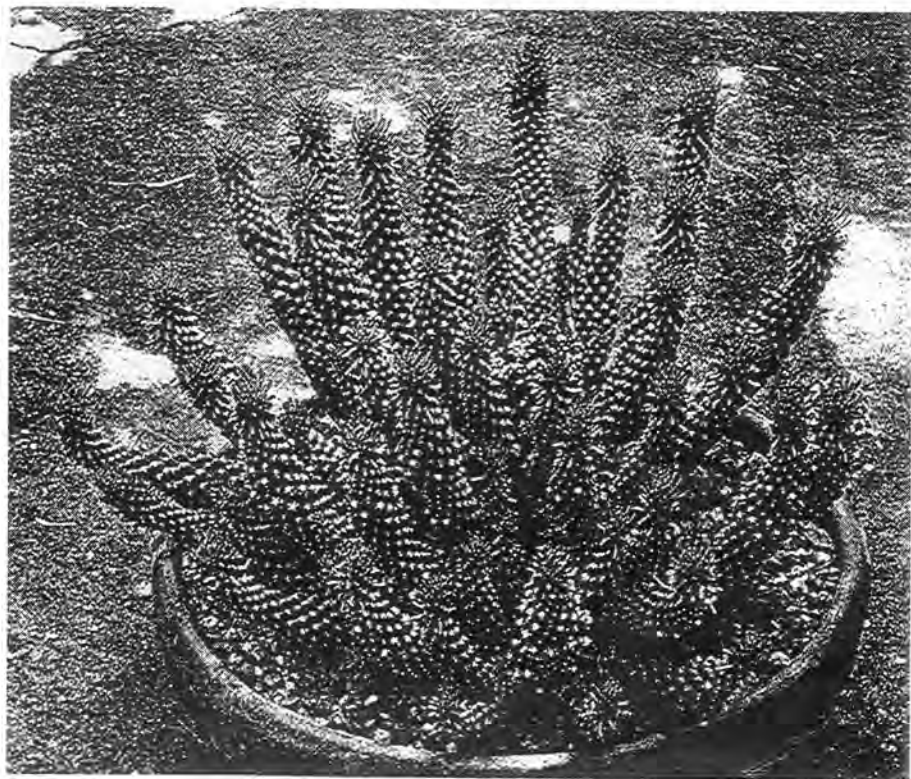
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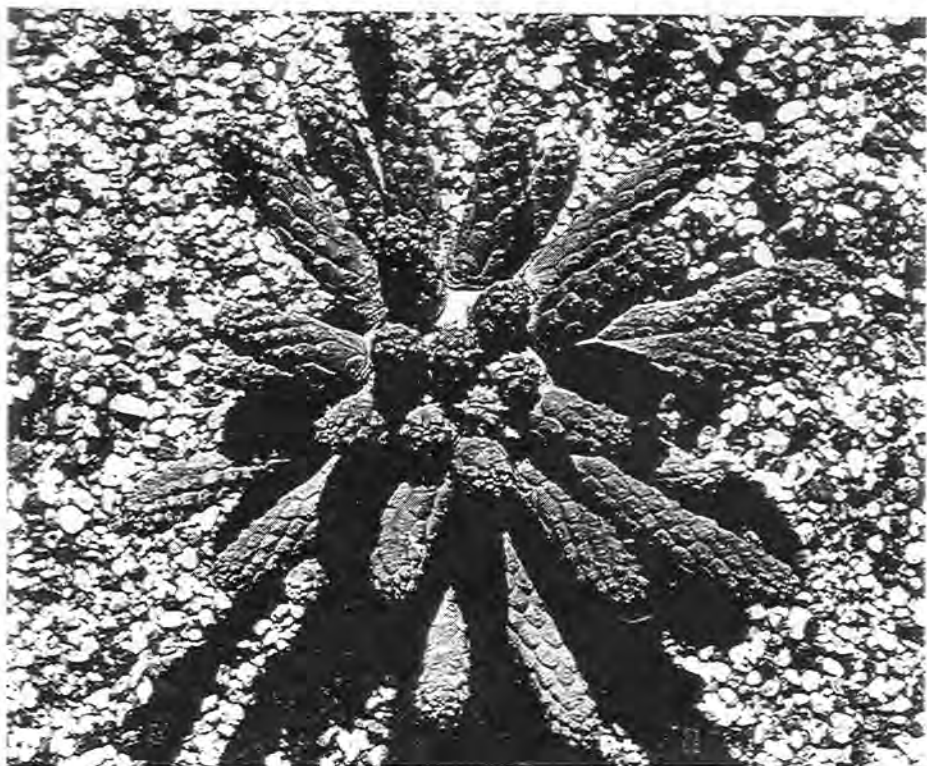


Perseus holding Medusa's head

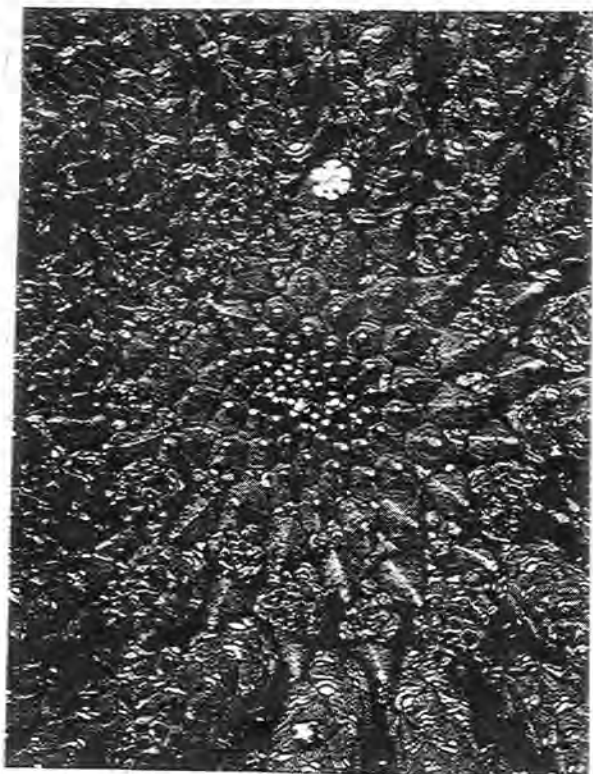
MEDUSOID EUPHORBIAS



EUPHORBIA CAPUT-MEDUSAE



EUPHORBIA ESCULENTA



EUPHORBIA FLAVAGANII

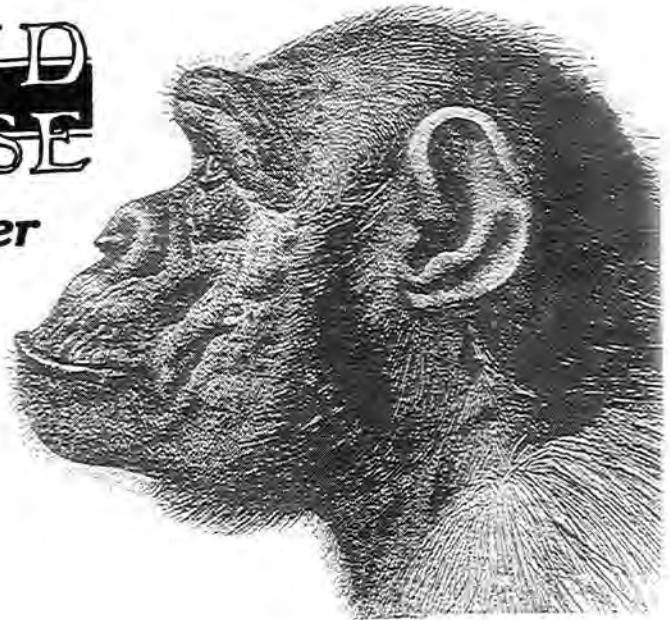
# WISE AND OTHERWISE

by Michael Buckner

**Barn's burnt down--  
Now**

**I can see the Moon.**

*Masahide*



"The cataclysm was as sudden as it was devastating. It came literally out of the blue, shattering the tranquility of earth's ecosystems. One moment, it was business as usual in the dinosaur communities. The next moment, it was total chaos. A massive comet careened into the earth sending tons of dust and gases up into the atmosphere. Forest fires scorched the earth, the sun was virtually blacked out. No part of the earth escaped: the creatures that survived the initial blast found their habitats severely disturbed. The dark clouds blanketing the earth lasted for years, blocking so much sunlight that plants could barely photosynthesize anymore. Whole forests died off. And the tiny photosynthesizing algae floating around on the ocean surface likewise succumbed in great numbers. With the cornerstone base of the food chain effectively put out of commission, the remaining animals--the plant eaters, as well as their carnivorous predators, followed close behind. And then, as the dust was literally settling, leaving the surviving species to regain some equilibrium and set up new ecosystems, disaster struck again. And again. The earth had run into a storm of extra-terrestrial bodies--and life was teetering on the brink of complete annihilation.

Science fiction? Sounds like it, but this scenario of events ending the Cretaceous Period, 65 million years ago, comes not from the lurid imagination of a fantasy writer, but rather from a Nobel prizewinning physicist and his team of highly competent--and very serious--scientists. Their picture of the cataclysmic demise of the dinosaurs, fueled by the insatiable curiosity that has surrounded dinosaurs since their nineteenth-century discovery, brought the subject of extinction to the forefront: the 1980s became the "extinction" decade. The public was enthralled, especially by reports of dramatically awful catastrophes doing in the dinosaurs. The scientific community awoke from a long period of dormancy to confront the phenomenon of mass extinction as high priority item. And it was no mere coincidence that the intense examination of mass extinction of the remote geological past coincides exactly with a heightened awareness that species are becoming extinct on a daily basis right now. We may well be in the midst of a mass extinction, one in which we ourselves--our species *Homo sapiens*--seems to be playing the unenviable role of arch, if not sole, villain. Suddenly, we have all come to realize that extinction is a very important phenomenon indeed."

**FOSSILS - THE EVOLUTION AND EXTINCTION OF SPECIES** by Niles Eldredge, Harry N. Abrams, Inc., NY c. 1991



# WISE AND OTHERWISE



*"Love is such a powerful force. It's there for everyone to embrace—that kind of unconditional love for all of human kind. This is the kind of love that impels people to go into the community and try to change conditions for others, to take risks for what they believe in."*

*—Coretta Scott King*

"The ongoing elimination of a sizeable portion of the Earth's biota is probably the clearest sign that the manner in which we use the natural environment is not sustainable. The intensity of our exploitation of natural resources is simply too great. In the past 40 years, human beings have wasted over a fifth of the Earth's topsoil, destroyed more than half of its forests, polluted most fresh and onshore marine waters, and profoundly changed the characteristics of the atmosphere.

It is easy to put much of the blame on the population growth. The human population has more than doubled over the past 40 years to reach the present level of more than 5.5 billion. Each new person puts an added burden on the natural environment. In California, population growth is obviously a direct cause of spreading urbanization. New housing developments and freeways overwhelm woods, meadows, and chaparral, destroying unique habitats full of evolutionary novelties, placing many native plant and wildlife species in imminent danger of extinction.

Yet if we are to understand the roots of the problem and work towards real solutions, we need to look at other factors besides population growth. As living organisms, we must utilize the natural environment to satisfy our basic needs. The manner in which we do this, however, is as variable as human culture. The problem is that present social, economic, and political structures encourage us to maximize our use of natural resources rather than use them wisely. If we do not use the resources in a sustainable way, we are treating these assets as if they were a business undergoing liquidation, and there will be nothing left for our children and grandchildren.

LIFE ON THE EDGE - A GUIDE TO CALIFORNIA'S ENDANGERED NATURAL RESOURCES: WILDLIFE,  
published by BioSystems Books, Santa Cruz, CA c.1994

**Man's main task in Life is to give birth to Himself.**

*Erich Fromm*

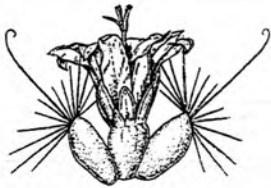
Do not try to satisfy your vanity by teaching a great many things. Awaken people's curiosity. It is enough to open minds; do not overload them. Put there just a spark. If there is some good inflammable stuff, it will catch fire.

*--Anatole France*



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## *The San Diego Cactus and Succulent Society*

EDITORS: Michael & Joyce Buckner

(619) 222-3216

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