

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 1

January 10, 1987

JANUARY MEETING

Saturday January 10, 1987

1:30 P.M.

Casa del Prado, Room 101, Balboa Park

PROGRAM

Development of the Ethel M. Botanical Garden and Cactus Display

by Gary Lyons
Horticultural Department Los Angeles City Zoo

Mr. Lyons will present an illustrated program on the development of the Ethel M. Botanical Garden and Cactus Display in Las Vegas, Nevada. The garden is Nevada's first botanical garden and features outstanding displays of cactii native to the American Southwest, including a spectacular planting of Saguaro, as well as numerous desert trees and shrubs. Lyons was consultant, designer and director of the Ethel M. Botanical Garden from 1980 to 1983 and previous to that was in charge of the Huntington Botanical Gardens 12 acres desert garden for 16 years.

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Deadline for the February Issue - January 31, 1987

Thanks Mary

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NEWS NEWS NEWS

Congratulations to our newly elected officers. I'm looking forward to working with them.

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WELCOME TO OUR NEW MEMBERS

Kathi Reyes - Long Beach
Zurbruggen Andreas is from Switzerland but is living in Solana Beach for the next year.

+ + + + +

Those who have volunteered to bring refreshment for January are:

Phylis Flechsig	Margaret Gallik	Brunhilde Scheffler
Virginia Cutrona	Ruth Richardson	Frances J. Nardi
Lois Zaranka	Reed Pierce	Susan Barker
Sarah Jervey	Mary Helman	Joan E. Fleer
Diane Crowley	Mike Cullen	Mary Aubuchon
Joan Johnson	Nellie Kennett	Pat Hennicke
Ruth & Gene Olson	Susan Clements	

Thanks

+ + + + +

SAN DIEGO CACTUS & SUCCULENT SOCIETY
MEMBERSHIP APPLICATION

\$8.00 - Single member per calendar year
\$2.00 - Each additional member of same household

** PLEASE PRINT **

NAME: _____

ADDRESS: _____ PHONE: _____

CITY: _____ STATE: _____ ZIP: _____

PLEASE CHECK IF;

- You are a new member
- You subscribe to the Cactus & Succulent Journal

** COMPLETE AND MAIL TO **

Susan Shepherd; Treasurer, 4537 Cochis Way, San Diego, CA 92117

Additional members:

Name: _____ Name: _____

AMOUNT ENCLOSED \$ _____

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

PLANTS OF THE MONTH FOR 1987

Succulents

Jan. Hydrophytum and Myrmecodia
(R. Latimer)

Feb. Agaves and Yuccas of
Baja California (D. Dunn)

March Sedum (P. Flechsig)

April Fouquieria (D. Dunn)

May Beaucarnea and Nolina (Vol.?)

June PICNIC

July Adenia (M. Lee)

Aug. Aloes of Madagascar (L. Phelps)

Sept. Monadenium (J. Betzler)

Oct. Bursera and Pachycormus
(D. Dunn)

Nov. Cerropegia (P. Flechsig)

Dec. CHRISTMAS PARTY

Cacti

Jan. Austrocephalocereus
and Micranthocereus
(D. Dunn)

Feb. Gymnocactus (volunteer?)

March Turbinicarpus (R. Kent)

April Rebutia (P. Flechsig)

May Lobivia (P. Flechsig)

June PICNIC

July Ariocarpus (J. Johnson)

Aug. Selenicereus (R. Latimer)

Sept. Echinocereus (P.F. and
D.D.)

Oct. Coryphantha (Volunteer?)

Nov. Ferocacti of Baja
California (D. Dunn)

Dec. CHRISTMAS PARTY

Our sincere thanks to all who volunteered, and we could use
a few more volunteers!

Dorothy and Phyliss



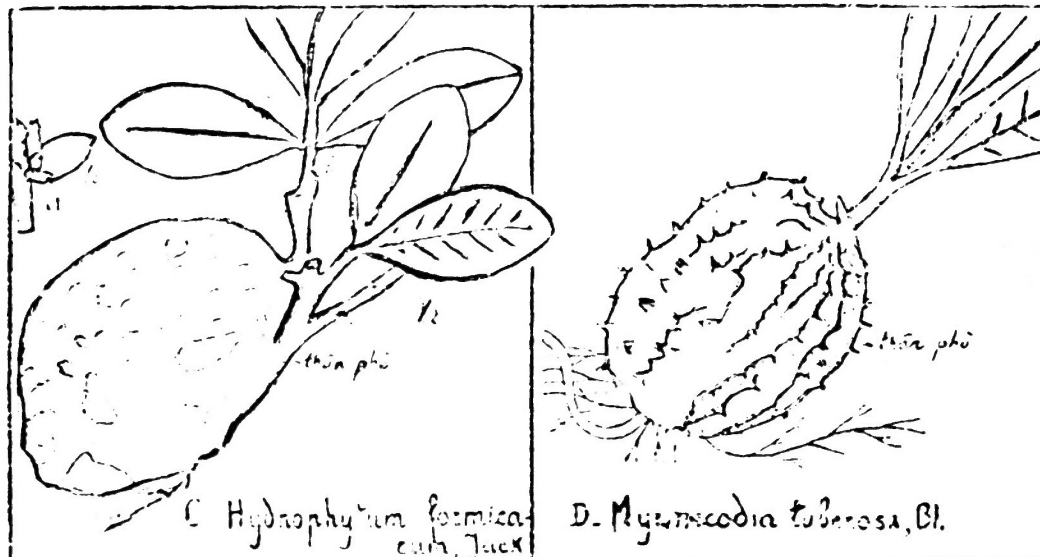
Succulents-of-the-Month

MYRMECODIA & HYDNOPHYTUM

by Rick Latimer

Of the two plant families that are almost exclusively native to the Americas (the cactus and bromeliad families - both of which happen to have succulent species), the general public has certain stereotyped beliefs (namely, that the cacti reside in the deserts and are ground dwellers, while the bromeliads are all jungle dwelling epiphytes [or are mistakenly thought to be parasites]). Of course, we know better, being familiar with such epiphytic jungle dwelling cacti such as Rhipsalis species and such terrestrial, desert inhabitants such as some Hechtia species. We are also very familiar with the "caudiciform" succulents (some of which are cacti), which can be described as those succulents with a swollen root and/or stem that is a food and water storage organ. In Gordon Rowley's soon to come opus Caudiciforms & Pachycaul Succulents the rumor is that he defines caudiciforms as being those succulents with underground swollen tubers and pachycauls as those with above ground swollen stems. If that is the case, it will be interesting to see how he classifies a few esoteric 'caudiciforms' (in the old meaning of the term) that are also epiphytic!!!

The genus Myrmecodia (Greek 'myrmex' or 'myrmekos' = ant) and the genus Hydnophytum (Greek 'hydnon' = truffle + 'phyton' = plant) are closely related genera in the madder family (Rubiaceae - which also includes the economically important coffee [Coffea] and quinine [Cinchona] plants). These two genera contain about a total of 50 species of plants native to southeastern Asia, Indonesia, Australasia, New Guinea and Fiji. Both genera grow high up in trees, but receive some shade. They may experience droughts lasting days or weeks, so their tubers contain water storage tissues like other xeromorphic (succulent) plants. The plants are attached to their host trees by adventitious roots with very little humus for their roots. They share their environment with Hoyas, Dischidias, orchids and ferns (replace the asclepiads with bromeliads and cacti and we might be in the tropical Americas!). The leaves are not succulent and the flowers are small and not terribly interesting.



The tubers of these plants are corky and are filled with a maze of passages that (in the wild) are used by ants as 'home'. The ants protect their colony (and therefore the host tuberous plant) from other insects or other animals and therefore the plants are protected from chewing and boring predators. Frank Horwood relates how he collected specimens of H. formicarium (Latin 'formica' = ant) on the south coast of Singapore about 20 years ago:

Collecting plants can prove to be a trifle hectic, as the swamps are usually infested with deadly sea snakes...The plants can be collected with a fair amount of safety at low tide when the snakes retreat far out to sea with the tide. When a plant is located it will probably be growing on a branch 40-50 feet from the ground, so that the tree has to be climbed and the plant carefully separated from the host branch, or where practical the branch complete with the plant sawn off. Special care has to be taken to avoid being bitten by the ants, which have a very painful bite. Another difficulty is that the plants will not stand a bruising of the tuber, as this very quickly leads to rotting of the whole plant, as I have unfortunately found out from experience. Most of the plants grow on vertical branches, so that the tuber is on edge, with the stems after leaving the tuber turn at right angles to grow upwards. The plants are often covered by the stems of Dischidia gaudichaudii which quite often sends its roots into the tunnels of the Hydnophytum tuber...

Other myrmecophilous plants of note are Dischidia rafflesiana (native to the same general region, which has two kinds of leaves: one flat and the other pouched and holds a reservoir of water that is absorbed by adventitious roots during the infrequent rains), Cecropia peltata (a fig family member from tropical American rainforests that has feltlike pads that the ants feed off), or Acacia cornigera (which also has protein bodies the ants feed off on the tips of the leaflets and whose large spines are hollowed out by the ants for shelter).

The first time I ever saw any of these was at the Eastern Convention in New Jersey in 1982. The H. formicarium had a smooth skinned blob of a tuber while the M. echinata had (soft) spines and ridges on its tuber. This last year I got up to the CSSA Show again, where they had an impressive display of these plants including a rather large one that was to be sold in a silent auction. It remains to be seen, how many will appear at this SDCSS meeting - are we "out in the thules" compared to the other succulent growers in this country as far as these type of plants are concerned?

REFERENCES:

F. K. Horwood, "Exotic Xerophytes-7, Three Species of Myrmecophilous Plants from Singapore", The National Cactus & Succulent Journal (23:2) 6/68.

William Knerr, "Ants in your Plants?", Zoonooz (57:6) 6/84.

Pham Hoang Ho & Nguyen Van Duong, Flora of Vietnam (source of the above illustrations).

AUSTROCEPHALOCEREUS and MICRANTHOCEREUS

Some of the most outstanding and appealing smaller columnar cerei are represented by species of the two South American genera Austrocephalocereus and Micranthocereus. Both genera contain only a few species, and both are native to Brazil.

The genus Austrocephalocereus was originally set up by Backeberg to cover the species of Cephalocereus found in South America. These plants tend to branch from the ground, and never attain the heights of Cephalocerei. However, as with Cephalocereus, they do possess a true cephalium, which is situated laterally rather than on top of the plants as in Melocactus or Discocactus. Austrocephalocereus is the only Brazilian genus with glabrous (i.e. smooth, hairless) flowers. The flowers are nocturnal and are pollinated by vampire bats. All species of Austrocephalocereus are native to the dry forests of Brazil, and they require some warmth in cultivation. At present there are only six species, none of which are yet common in cultivation. A. albicephalus is a handsome gold-spined plant from Minas Gerais, where it generally grows on and between rocks at an elevation of about 3,000 feet. With age it develops a striking cephalium of dense, silky white wool, hence the specific name albicephalus. It was discovered as recently as 1972 by Leopold Horst. A. dybowskyi is another beautiful Brazilian species; even very young plants are densely covered with soft white hair. It branches freely from the base, and in its native habitat may reach a height of about 12 feet. The spectacular A. estevesii, discovered only in June, 1974, by Buining and Horst, branches very sparingly but may reach a height of 19 or 20 feet. Its habitat is on bare, very hard and sharp lava rocks at an elevation of about 2400 feet, where it grows in association with scattered bromeliads. The intensely brilliant blue body is covered with deep gold spines, making this one of the most beautiful of all South American cacti.

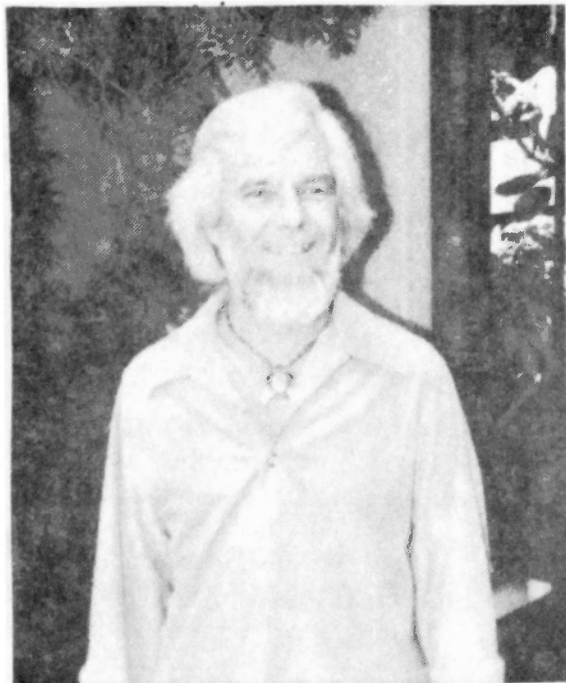
Micranthocerei are low-growing, slender-stemmed cerei which also branch from the base. At maturity they develop a pseudocephalium which is always on the side to the northwest; from this the brilliant waxy-looking pink or orange diurnal flowers appear simultaneously, 30 or 40 at a time. The fruits are red berries which also occur all at the same time. Juvenile plants have quite long hair and the base is ringed with golden-yellow bristles, similar to Thrixanthocereus. There are only 4 or 5 species in the genus. Like Austrocephalocereus they grow at moderate elevations on or between rocks and are limited to certain regions in Brazil, mainly the states of Bahia and Minas Gerais, where they grow in association with several species of Melocactus, Discocactus, and succulent Euphorbias.

These plants do not seem to be difficult in cultivation, although their type of native habitat - "on and between rocks" - does suggest a certain amount of warmth and excellent drainage. They are well worth cultivating, mostly for the striking combination of blue epidermis and brilliant spination misted over with fine wool.

Member Interviews: Leroy Phelps

by Marcia Monroe

Lee grew up in Logan, Ohio, and after attending local schools, he served in the Army for four years. Subsequently, he acquired a Bachelor of Science degree at Ohio State University, and a Ph.D. at USC,



Los Angeles, California. In addition, Lee has worked for the Eli Lilly Company, and for two years he was engaged in research at the Center for Disease Control in Atlanta, Georgia. At the present time, he is a professor of microbiology and immunology (a specialist in immunology) at San Diego State; he has two children, Lauren 16 and Keith 13.

In the early 1960's Lee became interested in traditional bonsai, and when he first started to collect cacti in the middle sixties, he "hated succulents"; then he discovered that succulents made excellent bonsai and on many occasions he has been called upon to demonstrate this unique art form to our Society and to other civic groups.

Lee is a member of the American Association for the Advancement of Science, American Institute for Biological Science, American Society for Microbiology, and Society for General Microbiology, England. He is a Charter Member and past Member of the Epiphyllum Society, and at one time he was very active in the Tropical Fish Society specializing in aquatic plants.

He has been a member of the San Diego Cactus & Succulent Society since 1967, and at the moment he is a member of the Board; he is a past member of the Education Committee writing "Plant-of-the-Month" for our Newsletter. Too, he is Vice-President, past Board Director (10 years) and past Chairman of the Research Committee for CSSA.

For two consecutive years, besides receiving numerous other awards at the San Diego Cactus & Succulent Society's Annual Show, Lee has won the Ruby Falk Plaque for "Best Succulent in Show". A few years ago at the National Show sponsored by CSSA, he was awarded the Franklin Crosby award for "Best Succulent in Show". Lee enjoys judging the most and he has presented programs on grooming and judging of plants to our Club and to other groups.

He has a special interest in pachypodiums, melocacti, caudiciforms, traditional bonsai and succulent bonsai, and in his spare time he visits one of his favorite nurseries to select plants that will develop into future show pieces.

Through the years Lee has become well-known for his matchless auctioneering performance at the Annual Christmas Meeting and at the Annual Picnic, and the funds gained from these two events help to support the San Diego Cactus & Succulent Society.

This interview is from the July 1980 Espinas y Flores

SAN DIEGO CACTUS & SUCCULENT SOCIETY

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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 pm 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 cents.

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