

MAMMILLARIA THORNERI

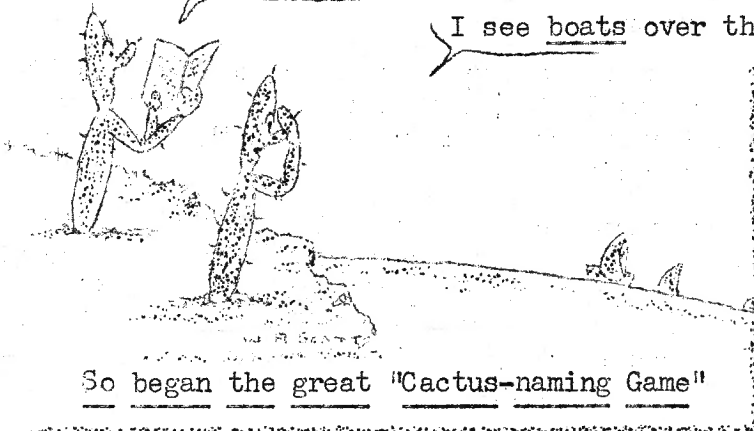
Espinas y Flores

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

TOMO OCHO, NUMERO UNO

ENERO 1973

The ORACLES predict "There will come genus Homo, (Man) species sapiens (Wise One).
 The year will be 1492. He will arrive by boat. There will be three. He will
 bring us names."



I see boats over the horizon. There are three!

- 1719 - Tournefort - "It looks like a thistle, it's a Kaktos!"
- 1737-53 - Carolus Linnaeus, the "Father of Botany", author of "Binomal Nomenclature".
 1 genera, 12 species.
- 1897-8 - Karl Schumann "Monographia Cactacearum".
 3 tribes, 21 genera.

- 1919-23 - Dr. N. L. Britton (New York Botanical Garden) and Dr. J. N. Rose (Smithsonian Institute), "The Cactaceae". . . 3 Tribes, 124 genera, 1253 species
- 1931 -- Forrest Shreve, "The Cactus and its Home", . . 3 Tribes, 1232 species.
- 1940-43 - Scott E. Haselton "Cacti for the Amateur" . . . 3 Tribes, 149 genera, 1867 species.
- 1945 - Prof. John Borg (Royal University of Malta), "The Cactaceae". . . 3 Tribes, 134 genera, 1752 species.
- 1949 - Liberty H. Bailey "A Manual of Cultivated Plants". . . 140 genera, 1700 species.
- 1960 - Von Curt Backeberg "Die Cactaceae" . . . 233 genera, 2847 species.

The Cactus Family is the largest and best-known succulent family and it illustrates in a very surprising way the evolution of all succulent plants from the jungles of the Eocene Epoch to the present.

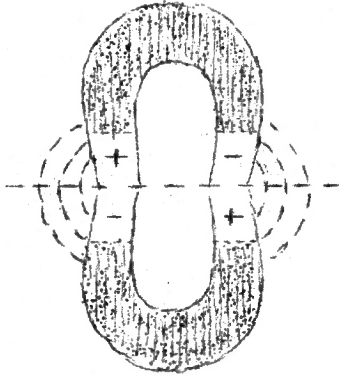
The Cactus Family is native only to the Western Hemisphere. Portuguese and Spanish explorers were amazed to find such strange plants cultivated by the aborigines for food, timber, drugs and drink. They took plants back to the Mediterranean where they quickly acclimated.

The name "Cactus" (Gr. Kaktos) meaning 'thistle' probably refers to the Spanish Artichoke, Cynara cardunculus, L. or a derivative C. scolymus. The artichoke is a coarse herbaceous, thistle-like perennial or biennial with a large lobed or pinnately terminal heads, native to the Mediterranean Region and the Canary Islands.

. . . Ye Ed

MYSTERY OF MAGNETISM

by Doc. R. V. Vaughan



Several times I have written about magnetism and that at one time the north pole was situated in India. We know that a shift is ever taking place and at this time the north pole is fifteen degrees east of the true north as we map the Earth.

Skippers have a memory retaining motto: "Can Dead Men Vote Twice?" "Compass Deviation Magnetic Variation True". To travel a true course, a skipper must correct the course desired to allow for magnetic flux..

From either pole to the equator the lines of flux flow erratically and do not follow true isobars. The isobars on nautical maps furnished by Uncle Sam are 'snakes trails'. This I think (just my supposition) is due to the iron-manganese magma within the Earth that is heated to plasticity and moves slowly under gravitational pull as do the waters of the Earth.

The world's most advanced nations have set up a Magnetic Commission. It meets yearly and its library of research would fill Casa del Prado. Tomes have accumulated thru the years and yet each year more is learned about the magnetic mystery which exerts great power over our lives.

Only within my lifetime has the fact become known that the Earth has two large magnetic zones - one north and one south of the equator. And only in recent years has the fact been established that some planets do not have any magnetic fields. We must assume they could never have electric energy for any possible inhabitants if such did exist. When one considers the magic of magnetism and the part it plays in our life struggle, it really scares one.

Recently our nation exploded on Amchitka Island a nuclear blast and research now reveals that the magnetic fields on both sides of the island have changed. Less than two miles from the fault caused by the explosion the degree of magnetic flux varies many degrees, up on one side, and down on the other. Dr. Wm. Hasbrouch of the National Oceanic & Atmospheric Administration did discover and report this.

In another study James D. Hays of Columbia University, Lamont-Doherty Geological Observatory, found evidence that some tiny animals in the sea may adapt themselves to rhythmic changes in the Earth's magnetism and that they die when the rhythm is altered.

Many times in past ages the Earth has flipped and reversed magnetic poles, and of course this caused the compass to shift from North to South Polarity. When this occurs, every several hundred thousand years, the kill is immense of sea creatures which has been proved by recent deep drilling into the ocean's floor thru ancient sedimentary deposits. Hays bases his theory on a study of eight species of radiolaria, a microscopic marine animal whose skeletons have been found in hundreds of feet of sediment on the ocean floor. Many scientists have examined and confirmed this discovery but to date they cannot explain why the creatures all perish at the same time. It could be that the weakening of the magnetic inflow allowed the cosmic rays to enter the Earth's atmosphere and kill all these creatures.

Columbia geologists have proved that some animals are subject to and react to magnetic waves--snails, worms, flies use it as a 'homing device'. These deep ocean cores come from the MOHO drilling projects in our Pacific Ocean area.

MOHO's drillings are revealing much of the Earth's long history through climatic, magnetic and orogenic changes, especially during the last quarter of a billion years. Before that, all is pure speculation.

JANUARY PROGRAM

A Train Ride Across Mexico.

Exciting, scenic, real!!

Courtesy - Don Kruzner

Don's train ride is from the West Coast town of Los Mochis, Sinaloa, Mexico, east of the Gulf of California, eastward over a 7,000 foot mountain range to the Capital City of Chihuahua, which is Chihuahua.

You're going to see a country, climate and people from the banana, pineapple, rice and sugar cane country of the West Coast of Mexico to the cattle, non-ferrous metal (gold, silver, lead and zinc) country of the interior. It's cactus country too.

All this is available at a very reasonable cost--one membership in the San Diego Cactus & Succulent Society, \$3.00 which includes a subscription to Espinas y Flores. Visitors are most welcome!! By all means come and take the trip with us.

This trip, our trip will start and end at Casa del Prado in Balboa Park in San Diego on Saturday, January 6th, 1973, starting at 1:30 p.m. and ending about 40 minutes later. That's a very fast trip across the mountains, isn't it?

When you cross the very high country you'll cross over a very high bridge over a very deep canyon. You need not worry, the train moves slowly, at about 4 mph. Remember, there's never been a railroad wreck in Casa del Prado--yet! Don assures double safety, he rides in the cab with the engineer.

After the very exciting ride everyone will line up on two sides of the regalement* table, courtesy of our three very capable Maitre d's, Pat Mooney, Rose D'Attilio and Elvira Bibbey. We will be seeing you at the depot.

*REGALEMENT 1973 Our newly elected President William 'Bill' Nelson is looking for three Maitre d's to supervise the regalement table in 1973. It is a challenge to follow Pat, Rose and Elvira who did an outstanding job in 1972. The activity affords a very delightful repast after our Saturday programs. Let's help Bill!!

Ye Ed suggests the Club take a Womens' Lib approach to the regalement activity on occasions. How about asking the better halves to manage the table at least once during the year so they might better appreciate what it involves. But don't ever let the men get the idea they can do a better job, unless they're willing to assume more than an occasional management of the table, coffee urns, and donated refreshments. All male volunteers please register with Bill.

CHRISTMAS TREE

Opuntia (Consolea) falcata

--by N. P. Steveson--

For several years I've wanted a Living Christmas Tree. I tried a couple of years with a pair of Junipers growing at the front corners of my porch but the neighborhood kids unscrewed the lamps and destroyed them.

This year I hit upon a master plant with encouraging results! It has drawn many compliments from the neighbors. It foils little vandals. I put a string of 50 Tiny-lites, the outdoor variety, on my six-foot Opuntia (Consolea) falcata. Starting at the top, I strung the lamp line downward.

The lower pads of Opuntia falcata fall off as it gets older, so it has the effect of being a tree with a trunk. The electric terminal end is hooked by an extension cord to a switch controlled by a photo-electric cell. At night it looks just like any other Xmas tree. But it's so different!

I guess there's a little of the Devil in me that makes me wish I could watch some small-fry vandal try to unscrew the lights.

CONSERVATION AT HOME-----A reply.

Dear Mr. Scott:

29 November 1972

Here is a reply I felt compelled to draft after reading the CSSA panel discussion of Conservation printed in Nov. 1972 "E y F". Please print it in 'E y F' if you think it has merit. It seems a paradox that cactus collectors, so notorious for their reducing the stands of cacti, should now concern themselves with conservation. They are getting in on the game of conservation very late and, it appears that they are duplicating a lot of effort by their independent action. The interest in Nolina interrata is a good example. The information on ownership of the Nolina site has been known by the California Native Plant Society for quite a while. A few months ago I got a letter from Mr. Lyons at Huntington asking about the site. Perhaps the enclosed "blast" will bring some people up-to-date. Cacti and succulents are native plants too.

Sincerely,

Mitch

.....

It is curious that the Cactus and Succulent Society of America should suddenly concern itself with conservation! "Vale mas tarde que nunca." Several species conservation efforts are already functioning in California. Of prime import is the work of The Nature Conservance. Two areas in San Diego County saved from the developers are Buena Vista Lagoon and the Ewing Preserve near Rancho Santa Fe. The Ida Haines Murphy Preserve in the Santa Monica Mountains is the most recent acquisition by TNC. The scope of TNC is not so narrow as concern for solely succulent plants; therefore, their appeal is to many and their programs continue. If CSSA is to make any significant gesture regarding species conservation, it must act in concert with a larger group. An article in Espinas y Flores, 8(11):1, noted the existence of a "Rare Plant Study Center" in Texas. There exists a similar effort in California, this being the Rare Plant Committee of the California Native Plant Society. Already this Committee has published a listing of Rare and Endangered Plant Species in California. The following 19 succulent plant species appear in their latest listing. An asterik indicates those plants which grow in San Diego County:

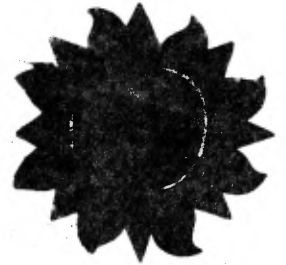
Dudleya bettinae, D. blochmaniae ssp. insularis, D. candelabrum, D. densiflora, D. multicaulis*, D. nesiotica, D. parva, D. saxosa, D. stolonifera, D. traskiae, D. variogata*, D. viscida*, Mammillaria alversonii, Nolina interrata*, Opuntia basilaris var. brachyclada, O. basilaris var. treleasei, O. parryi var. serpentina* and Sedum pinetorum.

If CSSA is to render any significant succor to its struggling succulent species then, perhaps, it would be best to lend its support, financial and otherwise, to the ongoing effort of the California Native Plant Society which is broader in scope and resources. United, conservationists can make a stronger stand; divided they fall short of their combined potentials. But this concerns only conservation in the United States. What about foreign countries?

The work of the International Union for Conservation of Nature and Natural Resources seems relevant here. Already the Union has published five volumes on endangered species in its Red Book. The fifth volume deals with a portion of the flowering plants, with future volumes to be published on remaining rare and/or endangered species. Working through an international group such as IUCNRR would seem less offensive to foreign peoples and governments than, for instance, Gringos trying to save Mexico for themselves! The efforts of Conservacion Silvestre seem commendable but what do the Mexicans think of our conservation efforts when, on one hand, cactophiles return from Mexico, their VW's and Jeeps burdened down with field-collected plants; while, on the other hand, we plead with the Mexicans to stop defiling their own land! We cannot condemn the Mexicans for building a peninsular highway when the main revenue derived therefrom is American! What we must do is stop the field collecting of plants for commercial or private horticultural use. Indeed, conservation must begin at home if it is to succeed at all!!!

R. M. Beauchamp, Herbarium,
The New York Botanical Garden
Bronx, New York

Life is short and we have not
too much time for gladdening
the hearts of those who are
traveling the dark way
with us. Oh, be swift to love!
Make haste to be kind.



NIBBY'S NOTEBOOK

A message like THAT should be SEEN...as well as lived. HAPPY 1973!
Bill Nelson had another great message for the coming year for our
Society: F R I E N D S H I P * C O O P E R A T I O N * L O V E !

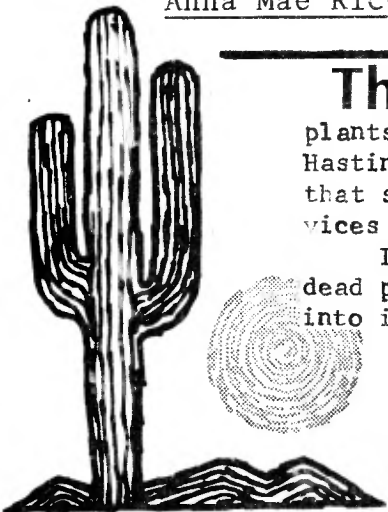
That is what our new President wishes, he said at the delicious Board Meeting at Sophie & Oliver Loylands... Julianne Rice will be writing the Plant-of-the-Month series...she volunteered when Lee Phelps very articulately insisted that he HATED to write...loved to talk, however, so we'll continue to hear from him on the floor and read Julianne's knowledgeable articles -- she's a real grower, too! Also found out when the deadline is for the notebook...looks more like a scrapbook this month...it's the Wednesday before the Saturday of the meeting... HORRORS - this is THAT Wednesday night and I've done it to Scotty for the last time... This is the last Notebook...it's high time for a NEW VOICE to be heard for the people part in the land of ESPINAS y FLORES. Two years is enough of deadlines. SOMEONE please prove my theory that YOU would like to write a "column" and volunteer. Okay?

The great expansive "Crown of Thorns " with out-stretched arms was a WINNER - no doubt about it...Ricky Latimer was the proud possessor. We think (and heard several say) that it was a miscount of hands during the voting for Plant-of-the-Month...I should never have raised both hands to vote for mine own...it was a regrettable bit of overzealous loyalty... Everyone missed Ricky at the Board Meeting...we wanted to tell him how many people admired his plant at Floral's open house the day following our December meeting...anyone who didn't come denied themselves a lovely treat...never has Room 101 been so beautiful! When San Diego's best arrangers get together, they certainly can present a festive sight! Julianne and I were proud to be in their company, and Anna Mae Rice was proud of Julianne!

The saguaro cactus begins life so precariously that it needs "nurse plants" to ward off killing sun and frost in its first tender years. Dr. Rod Hastings of the University of Arizona told me of one nurse tree, a palo verde, that shaded two saguaros through their early stages, then paid for its services with its life.

It happened in Sonora, Mexico: "My colleague Ray Turner and I saw this dead paloverde suspended between two young saguaros. They apparently grew up into its branches and pulled its roots right out of the ground."

from "GREAT AMERICAN DESERTS" by Rowe Findley
photographs by Walter Meayers Edwards) published by National Geographic
Society in 1972.



now is the time

Jan '73

(Credit Nov-Dec CALIFORNIA GARDEN)
(And our Representative to Floral)

CACTUS/SUCCULENT SOCIETY

Helen Claydon

Now is the time

to consider your winter watering program remembering that almost all desert types go without water December thru February, but water them if excessive shrinkage occurs. Remember that fixed general rules for watering do not always apply in southern California--so consider the plant and soil conditions.

to remember to gradually hold up on watering with beginning of winter and a cool place is ideal--45-50 degrees (F.).

to remember that too much watering or too high temperatures during the resting period is almost always fatal--one of the most common causes of failure among novice growers.

to remember that too much water in the soil during the resting period impairs root aeration, causing disease and rotting

to check against that troublesome, light-brown, circular pest, scales, which punctures the plant and sucks out fluids. Soapy water is a practical treatment as the scales are greasy. to include a selection from the following as a lovely holiday gift: SUCCULENT PLANTS, by H. Jacobsen (Ernest Benn, London, 1956) Alphabetically describes solely succulents. SUCCULENTS for the AMATEUR, by J.R. Brown (Abbey Garden Press). Far less technical--more adaptable to everyday use. THE FLOWERING CACTUS, by Raymond Carlson (McGraw-Hill).

Helen Claydon wrote the opposite column just before taking off for a cruise to Alcapulco... the trip is as fabulous as she hoped, she reports... Bill Gunther is co-editor of CALIFORNIA GARDEN and a Board Member of California Native Plant Society... It would be another excellent organization to join... NOW IS THE TIME for they are planning a 3-day DESERT FIELD TRIP over Washington's Birthday weekend... one of our members is Vice President - Mike Douglas - so you would find friends in the group.

It is our hope that the coming year will be devoted to the saguaro cactus... there is such a wealth of fascinating material available about this symbolic giant... witness the tiny tidbit on the preceding page.

Alice Wells writes: "Because of the report of the JUNIOR CACTUS CLUB in the last issue of EyF, the Club has rec'd showers of blessings -- 200 small clay pots from Loyal Bibby and Martin & Pat Mooney's 30 potted succulents - and the additional thrill of receiving membership cards!"

Augie, baby, you presided beautifully over the most giving Christmas party our Society has ever had -- made possible by the generosity of the Taylors, Bob & Suzanne. "Look," we overheard, "someone has labelled them all - isn't that NICE?" Indeed it was. Suzanne murmured with pleasure, "It's like old times -- we miss the auctions; always looked forward to them..." A point of reference: Taylors provided many more plants than people and there were at least 80 of us - the remainder were auctioned by Lee and Floyd - Echeveria "Doris Taylor" (any relation?) brought \$2.50! The profits were thoughtfully given to the Good Works of the Taylors in Baja.

Well... have labored mightily and brought forth another mouse...

Good cess to all!

NK



Another epic field trip was made by Mike Douglas (our Vice President) and Bill Gunther (our corresponding Secretary). They crossed over the highlands of Baja, and at right is a photo taken during their trip which shows Mike looking up at the snakey 30-foot long stems of *Machaerocereus gummosus* in a veritable cactus forest near the Sierra San Pedro Martir. This photo appears in the current issue of the California Garden magazine; it also may appear in a forthcoming issue of the statewide Newsletter of the California Native Plant Society, as an illustration for a report about their trip, and about the plants and the sights which they observed along the out-of-the-way route which they followed. -6-



PLANTS OF THE MONTH

1 9 7 3

C A C T U S

S U C C U L E N T

MAMMILLARIAS, Dioica and Plumosa J A N
 Described on another page.

RHIPSALIS (Tropical epiphytic cacti) F E B

GYMNOCALYCIUM (Naked calyx) M A R

SCHLUMBERGERA (Leaf flowering cactus) A P R
 Delightful!

YEAR OF THE WOOD---Novel use of wood M A Y
 in arrangements.

LOBIVIAS J U N

CRASSULAS -- open.
 (Kras'-ū-las)

OXALIS --- You have 25-plus choices.

SARCCOCAULON and succulent pelar-
 goniums.

SEDUM tortuosum (full of turnings
 and windings)

SAME OVER HERE --- Novel use of
 wood in arrangements.

OTHONNA (Senecio like, pretty)

TO BE ANNOUNCED IN JULY 'Espinass y Flores' -- subscribe now.

CORYPHANTHA A U G

BORZICACTUS S E P

ARIOCARPUS O C T

TREE CEREUS (Not 'three') N O V

RED FLOWERING CACTI D E C

SEMPERVIVIUM (Always living)

PACHYPHYTUM (Gr. thick plant)

SENECIO (Literally 'old man')

STAPELIADS

RED FLOWERING SUCCULENTS

(Could we use a red spray paint can, Julianne? How about red leaves too?)

.....

"MIL GRACIAS"

Bob & Suzanne Taylor .

On Friday, Dec. 8th we drove 260 miles to El Rosario, and surprise, all on paved highway. Rain was the feature of the day until we arrived at Ensenada, thereafter the sky was clear and it was sunny.

We were met by 280 school children at El Rosario, ages 6 to 12, each of which was the recipient of an apple, an orange and candy. What happiness these three small items can bring to the children of a land in which the way of life is hardship and privation, but where the spirit is like children the world over and where a little means so much.

The members of the San Diego and Palomar Societies were most generous, every little bit helped. To put it another way, 100 pennies make up a dollar. No gift was too small or insignificant to be wanted and appreciated, where the way of life is, as we would describe it in our society 'underprivileged' and that not for a select few, but for all.

Our truck also carried gifts of clothing and other items much in need in the land south of the border. All items of the latter nature were put in good hands to be distributed in proper time as judged by those who know.

We returned on Sunday and surprise, once again we encountered rain at Ensenada. A most successful trip. A thnak you to everyone who helped.

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 You saw Mike Buckner's shop in December 'Sunset', most interesting shop of all.

HEROES UNSUNG 1972

Now a "Thank You".

In the making of a Club there will be found individuals who assume responsibilities, who bring together the loose ends, who render services beyond the call of duty, without which the Club would be a ship without a rudder. No one individual constitutes the crew. . .team work brings about achievement, results.

Last month words of appreciation were expressed to 'contributors of the written word' for all to read in Espinas y Flores. Individual efforts in 1972 were much more.

This month words of appreciation apply to another group which served in other capacities. Individual efforts cannot be measured in man-hours, or circumscribed by glowing phrases. They kept the machine fueled, oiled and running smoothly from month to month. Returning again to the alphabet:

BECKFIELD, Lucille --- Maintainer of miniatures in clever containers on a scale to stagger the vision. Collector of signatures on meeting days as tho each one represented a dignitary.

BILLMYER, Edith -- Our "Twentieth Century" greeter in fact and in name...by nature...with charm, demeanor, poise, and personality unbounded.

BUCKNER, H. Warren --- The only individual between our Bulletin and YOU! Label producer, every production step done with despatch and efficiency, always right on schedule.

Floribunda --- Graft exhibits at Calif. Expo. . .four years, four attempts, four firsts. That's 1000% . . . is there more?

GABLE, Floyd L. --- Mr. 'Casual' --- if pressed, may concede his garden is "best tended" this side of the Plant Kingdom.

KLINEFELTER, Nibby --- Given a pin, a plant, a flower, a stick and a stone, Nibby will add a glance, a thought, an idea, and PRESTO! There will appear an arrangement with beauty and charm to stagger you. All that out of the air---not out of a book.

LATIMER, Ricky --- VEEP #2, thoughtfully quiet, keeper and disperser of plants; one of three pictured in the Union at Cal Expo, busy on an exhibit.

LOYLANDS, Sophie & Oliver --- Is it possible two can achieve so much with such apparent ease. Actions always speak louder than words. The other two pictured "on exhibit".

LIBRARIANS --- Helen Hegyi, Ruth Nelson, Edith Werner --- collectors, catalogers, dispensers, and guardians of the Bookmobile, finest and most used of any Club.

Maitre D'ames: Pat Mooney, Rose D'attilio and Elvira Bibbey search out, collect, slice, sweeten and serve a double line each month with despatch. YUM-M-M!

MILLER, O. Ed --- Interests unlimited, tries everything from Lithops to Lollipops. His motto: "If at first you don't succeed--reseed."

MOONEY, Martin --- Recall the old 'saw' "Get to the church on time". M² applies it...no waiting, everyone else does that and it produces congestion.

PHELPS, Dr. Lee N. --- Mesmerizes his attentive audience, edifies them in the process---and makes it look easy. No task too great, none too small.

RICE, Julianne --- No such thing as a difficult task, analyze it, look right thru it, see what makes it tick...DO IT!! It's simple!

YE ED --- Oftentimes has the final word for the Club to which are added on this occasion two more, making it "The Club Thanks YOU!!

MORE BITS AND PIECES

Whether or not cactus like to be pot-bound is an interesting question. Some gardeners say that best bloom is achieved from pot-bound plants while others pooch-pooch this. The truth seems to be that there are, among cactus, as with other plants, some species which prefer one condition to the other. One must learn from experience how much "leg room" a variety likes. If you know a variety is one which has surface-feeding roots, you will give it a pot with a large diameter. On the other hand, there are many species which develop large turnip-like underground bodies. The word "napina" is often part of the cognomen of such, and neoporteria napina and mammillaria napina come to mind. But there are many more, such as neoporteria rapifera and lophophora williamsii. Plants with turnip-like roots can usually regenerate a top when eaten by goats, etc. There are also species which develop long "tap roots". An example is coryphantha macromeris which is said not to bloom until it has grown its long tap root. Such species must be given deep pots if you want them to flower. The amount of "room" you give your plant, along with the makeup of your soil mix, must have a bearing on the amount of water you give the plant lest it dry out too fast or, worse, remain wet too long.

OBSERVATIONS

- of -
C a c t o -
P h i l
C O R L I S S

The literature abounds in warnings not to fertilize mammillarias if you want bloom. It is true that some species, such as mammillaria columbiana, with even large buds showing color, will have a regression of these buds to complete disappearance following fertilizing. I have found, however, that there are more mam species that will bloom after fertilizing than otherwise. Many, in fact, do not bloom at all until they have been fed! I had hoped The Mammillaria Society would make a study of this. If you have experience one way or the other regarding certain species, please let me know. I am keeping a record of those you can and cannot fertilize if you want bloom. I will give you my list one of these days.

Although I consider Cygon to be the most effective insecticide presently available to home gardeners, it is not without its contra-indications and limits. I have previously noted in these pages its phytotoxicity to certain plant families, such as aloe and agave. It is best used, in my opinion, as a soil drench, since it is a systemic agent, being absorbed into all the tissues of the plant and thus effective against both sucking and chewing insects. For rapid action, especially if the plant is in a dormant period, you may wish to use it as a spray, since it may be absorbed through the leaves. This poses no problem with cactus, where it is presumably absorbed by the spines, but if your solution is too strong you will get defoliation on most other plants, often so severe as to cause plant death. I feel I should add another word of caution: Strong solutions must not be kept in long contact with plastics - either pots or containers such as buckets or bottles. Overnight storage in plastics of a solution not too strong to be used as a soil drench will eat the plastic, even to the point of dissolving it wholly.



GARDEN CLUB



TALK

*A little knowledge and use of parliamentary procedure
can make club meetings run more smoothly . . .*

New officers of garden clubs are usually elected in December and take office in January.

Members, even in a small club, who are inexperienced in presiding over club meetings, are sometimes hesitant to accept the office of president or vice president. Just a little knowledge of basic parliamentary procedure would greatly improve such a member's confidence and make her (or him) a better presiding officer.

If you are a newly nominated or elected officer, or are considering taking an office, the following hints may be helpful. They are the advice of persons trained in parliamentary procedures.

First, become thoroughly familiar with your organization's by-laws, constitution and policies. If your club is affiliated with a state or national organization, know just what it expects of your club—and when.

It is a great help to an incoming president to receive from the outgoing president all records, notebooks and copies of correspondence related to the office.

Appoint committee chairmen who are enthusiastic about their work. Be cooperative with them and appreciative of their achievements.

Set up a calendar or yearbook showing programs, meeting dates and all other pertinent information.

Answer correspondence promptly—and see that the proper committee chairmen receive any and all information you may get concerning their work.

The presiding officer must arrive early and must open the meeting on time.

The president always stands to speak, but sits when listening to reports and debate.

She (or he) does not express an

opinion nor debate while presiding. If she feels she must express an opinion, she calls a vice-president to take the chair while she does so.

The presiding officer repeats each motion made and seconded. She takes the vote, asking for the affirmative and the negative, then announces the result. The negative vote may be omitted on a complimentary motion or resolution—such as a motion of thanks or courtesy resolution.

The presiding officer *may* (not *must*) vote when her vote would change the result of a motion.

The meeting is not adjourned for a luncheon or program if more business is to be transacted. It is recessed until a certain later time.

Before the business meeting the president makes an agenda or order of business, to include everything to be presented at the meeting in proper order. It is well for her to check each item as it is disposed of, so that nothing will be omitted.

A typical agenda might include: CALL TO ORDER (The chairman stands, raps once with the gavel and says, "The meeting will please come to order.")

DEVOTIONAL

PLEDGE OF ALLEGIANCE

ROLL CALL

READING AND APPROVAL OF MINUTES (Chairman asks the secretary to read the minutes of the preceding meeting. When finished she asks for additions or corrections. If none are offered, "The minutes will stand approved as read" (or if corrected, "approved as corrected"). The secretary signs the minutes.

TREASURER'S REPORT (usually filed for audit)

CORRESPONDENCE (read by secretary)

REPORT OF EXECUTIVE BOARD (if applicable)

REPORTS OF OFFICERS OR COMMITTEE CHAIRMEN UNFINISHED BUSINESS (list each item)

NEW BUSINESS (list known items)

ANNOUNCEMENTS

PROGRAM (The program chairman is asked to present the program or speaker, whom she *introduces*, if unknown to the group, or *presents*, if known.)

ADJOURNMENT (The meeting may be adjourned either by a motion or by the presiding officer's saying, "If there is no further business to come before the meeting, we are adjourned.")

Presiding officers of large clubs or more formal groups must learn about the various kinds of motions, about amending, withdrawing, modifying and rescinding motions. Although it is good for the president of every club, large or small, to know all the parliamentary law she can learn, it is not imperative for presidents of small, informal groups to be parliamentarians.

Tact, courtesy, fairness and common sense are more important—as well as the basic rule that only one thing is to be considered at a time.

Lord Byron 1788-1824

There is a pleasure
in the pathless woods,
There is a rapture
on the lonely shore,
There is society,
where none intrudes,
By the deep sea,
and music in its roar;
I love not man the less
but Nature more.

HARRISIA FRAGRANS

Larry W. Mitich, North Dakota State University
Fargo, North Dakota

Of the three species of Harrisia native to Florida, two are less susceptible to the damaging effects of cold than the third one--Harrisia simpsonii, which thrives in the extreme southern end of the peninsula and on the Florida Keys. One of the two more hardy species, H. aboriginum, inhabits the western coast region, and is distinguished by brown wool on the flowers and large yellow fruits. The other H. fragrans, is native to the eastern coast and has white wool and smaller red fruits. Both grow in areas receiving the tempering effects of the Gulf of Mexico or the Atlantic Ocean. At the northern limit of their ranges they occupy artificial habitats--aboriginal relics or kitchen middens.

Dr. John K. Small first discovered Harrisia fragrans on an island east of Malabar, Florida in 1903. The type was collected by Dr. Small on sand dunes a few miles north of Fort Pierce in the spring of 1917. He described it in 1920 in Volume II of The Cactaceae by Britton and Rose. The epithet fragrans alludes to the very fragrant flowers the plant produces.

Harrisia fragrans first aroused botanical suspicion by its geographic range, which is much over a hundred miles north of the range occupied by Harrisia simpsonii. Frequent casual observations also indicated a more robust plant. When flowers and fruits were secured, its identity with any of our other species of Harrisia was negated. Its more slender flower, with very long wool and the dull red obovoid berries at once set it off by itself. In addition to these structural characteristics, the flowers are very fragrant. These are produced from the side of the ribbed stem, appearing as long, silky nubbins which grow into clavate buds 6 to 7 inches long, and expand at 10 o'clock at night, shedding their fragrance about them.

In habitat, Harrisia fragrans is found on the sites of aboriginal activities, particularly in kitchen middens. Like certain kinds of pricklypears, it probably was used as food by the Indians, who apparently used a great variety of plants, as well as of animals for food. The fruits are edible but are rather insipid.

In the northern extension of its range the species occurs only on habitats containing stored-up heat; for example, on the coquina rock of Meritt's Island and on the kitchen middens of the dunes south of Mosquito Inlet. The middens, consisting mainly of oyster and clam shells, absorb a great deal of heat in the interstices during the long hot season and by gradual radiation permit tender plants to pass the short cool season with impunity.

Harrisia fragrans lends itself readily to cultivation. When planted on masse in warm climates its hundreds of flowers in season present a rare sight all through the night. In fruit it is an attractive sight and also a great attraction as food for birds, many of which are ravenously fond of the seeds.

The plant grows to 15 feet tall, with coarse fibrous roots. It occurs singly or sometimes approximate, but not in colonies. The stems are erect, reclining, or clambering, very stout and succulent, prominently 10 to 12-ridged, the ridges more or less depressed between the areoles, the grooves rather deep and sharp. The areoles are about 2 cm apart, each with a dense tuft of very short hairs on the upper side. The spines are acicular, 9 to 13 in each areole, mostly grayish and yellowish at the tip, one of each areole longer than the others, mostly 2 to 4 cm. long.

The young buds are copiously white-hairy. The buds about to expand are about 16 cm. long, or up to 20 cm. The flowers are nocturnal, very showy and very fragrant. The hypanthium is light green, slender-funnel form, scarcely ridged, the swollen base bearing subulate or lanceolate-subulate separated scales, with long, white, very lax hairs protruding from beneath them. The scales of the tubular part of the hypanthium are few and remote, subulate, slenderly acuminate, not turgid, with a tuft of long white hairs in each axil.

Continued, next page.

HARRISIA FRAGRANS--continued:

The sepals are very narrowly linear, slenderly acuminate, the outer ones are green, the inner ones with white midribs or the innermost nearly white. The corolla is white or pinkish, about 9 to 12 cm. wide, rotate-campanulate. The petals are numerous, of a spatulate type, with the broadened upper part unevenly toothed, acuminate, sometimes caudate-acuminate. The stamens are very numerous, not exceeding the petals. The filaments are filiform, white or nearly so. The anthers are yellow. The style is greatly elongate. The stigmas are mostly 9 to 12. The berry is obovoid, about 6 cm. in diameter, dull red, with tufts of long white hairs persistent with the scale bases. The seeds are black, about 3 mm. long, somewhat swollen at the base, obscurely crested at the apex, finely pitted.

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BROMELIAD COLLECTING IN MEXICO

Paul E. Leondis*

If you have ever been to one of the local bromeliad or rare plant nurseries, you will find reasons for collecting your own bromeliads. Selection is limited, conditions of plants may not be the best, and prices are, shall we say "not low". My intention in this article is to describe the problems involving collecting.

You decide to try it. First, where do you collect? The nearest place to collect bromeliads is in Old Mexico. To get into good bromeliad country, you must go as far as Mazatlan on the Gulf side of Mexico. If you're not too particular about size, quantity, condition and variety of the plants you collect, you can stay on the main road. If you really want to get into the best pickings you should take one of the many roads into the mountains. It is at the higher-elevation rain and fog forests where the bromeliads grow profusely.

Now that you know where, and how to get there, you will want to know what to take on your collecting trip. Unless you are a very good tree climber, you should take a few major items that will aid collecting immensely. Most important probably is a pole, telescoping or otherwise, and it should be fifteen, maybe twenty feet long. Atop this pole should be affixed a strong wire hook, about five inches long from tip to shank. I have broken many hooks on stubborn bromeliads. Don't worry about damaging their roots, you won't. Just remember not to hang or hit them, simply apply a slow even pull.

The second most important, if not most important, thing to have is an extremely tough leather jacket, preferably with leather pants. Many a modern greenhorn has had his clothes ripped to shreds by the cruelly-thorned acacias, agaves and even ground dwelling bromeliads.

If anyone questions your sanity upon seeing your equipment, simply tell them you are going fishing for "mountain marlin".

It is a good idea to take along some 'extras': A large supply of plastic trash can liners, a pair of strong garden clippers, a supply of bug repellent, a can or two of Raid or Black Flag and thick gloves. I should explain why you may need all these 'extras'. The trash can liners are to put the bromeliads in, they reduce the amount of dirt and bugs that fall off. The clippers permit you to take the whole branch, bromeliad and all, if you wish, instead of just knocking it off. It's a good rule to take the branch whenever you can. The bug repellent will help to keep the mosquitos from driving you 'out of your mind'. The gloves are, of course for your hands, and you wouldn't want to wreck them. The Raid is used after you unload your car. You will want to get rid of all unwanted 'hitchhikers' such as spiders, flies, beetles, caterpillars and a lot of other unnamed 'dainties' that make their homes in the bromeliad country you have visited and which may enjoy visiting a new land---your garden!

*Paul is a student, age 13, 8th grade, at Muirlands Jr. High School.

O R O Y A -- Br. & R.

- . Francis J. Borg .
- . Paola, Malta, Europe .
-

Oroya Br. & R. is the name of a specifically Peruvian genus of plants whose habitat is a narrow zone of highlands, some 300 miles long, between the latitudes 9° S and 14° S.

The small town of Oroya, where the first plants were found, and which is about 100 miles from Lima, gives its name to this very interesting genus, just as the other Peruvian towns of Arequipa and Matucana gave their names to other plants which are as beautiful and coveted as Oroya.

The Oroyas, which only recently have become very popular, were for a considerably long period considered as a monotypic genus, since only the first Oroya found, ie O. peruviana (K. Sch.) was known to exist. It was Weberbauer who discovered the plant in 1903 and Karl Schumann provided its description. At that time Schumann called the plant Echinocactus peruvianus.

In Buxbaum's classification of the Cactaceae, Oroya is listed under the subtribe Borzicactinae. The other genera in this subtribe are: Loxanthocereus (Backeb.), Marittimocereus (Card.), Clistanthocereus (Backeb.), Denmoza (Br. & R.), Cleistocactus (Lem.), Seticereus (Backeb.), Orocereus (Berg.), Morawetzia (Backeb.) and Matucana (Br. & R.). In fact, while it is rather difficult to associate Oroya with its flattened, somewhat globular form with the long candle-like form of Morawetzia or Arequipa, one can say that as regards external morphology, there is a certain resemblance when one compares Oroya with Matucana, and much more with Submatucana, in which one finds much less spines than in Matucana. Besides, the flowers in Oroya are short and campanulate, whereas the flowers in the other members of the Borzicactinae (sensu Buxbaum) are long and tubular, being sometimes also zygomorphic.

It is important to record at this stage that in recent years, there seems to be a mini-revolution amongst the students of the Cactaceae, and many seem ready to create a new classification and impose it on the others. Thus the American Myron Kimmach, whose name commands respect in the cactaceae sphere, in a long and detailed study which he published in 1960 in the Cactus and Succulent Journal of America, under the title "A Revision of Borzicactus", severely criticizes the subtribe Borzicactinae (Buxbaum) and reduces it to only four genera, namely Oroya, Borzi-cactus, Denmoza and Cleistocactus. Kimmach retains that only these four genera are distinct, and that all the others should fall under Borzicactus.

Many were the scholars who were in perfect agreement with Kimmach's theory, among whom J. D. Donald of England, who is an established scholar as regards South American plants, of which he receives regular consignments from Dr. Alfred Lau. But there were others who opposed Kimmach's theory, among whom one finds Curt Backeberg who in his "Kakteenlexicon" (one of the best recent publications) openly opposes Kimmach's theory and proceeds to publish a new classification of his own. In his classification, Backeberg removes Oroya from the Borzicactinae, and places it under Austroechinocacti with other genera like Pyrrhocactus, Brasilicactus, Parodia, Wigginsia, Soehrensia, Weingartia and Gymnocalycium. It is very likely however that Backeberg gave too much importance to external morphology in placing Oroya with Parodia and Gymnocalycium. More detailed studies undertaken later by Buxbaum, especially on the internal structure of the flower and on the seeds, show that Oroya should still be placed under Borzicactinae.

Irrespective of what classification one follows, however, it is a fact that Oroya is considered by all as a separate genus; not only that, but Oroya is considered as the most advanced and isolated member in any tribe of whichever classification.

O R O Y A, continued:

The chief characteristic of an Oroya is naturally the areole, since it is long and narrow and has pectinate radial spines. There are some species of Submatucana and also of Matucana (such as M. aurantiaca) which resemble very closely this type of areole. But while in these the ratio of length to width of the areole is 2:1 or at most 3:1, in Oroya the ratio is at least 5:1 and even more.

Oroyas, which have a shining green epidermis, grow flat on the ground and it is only after a considerable time that they become slightly globular. Oroyas grow to a maximum diameter of 10 inches. Oroyas grow too slow on their own roots, and are thus found mainly grafted onto some Trichocereus or Eriocereus in cultivation. This of course holds only for Oroyas grown from seed. Lately many collected Oroyas are making their appearance, and since Oroyas have a tap root, it is comparatively easy to reestablish them, without the need of grafting them. It is very probable however, that on further growth in our glasshouses, Oroyas lose their flat form and tend to become very globular and slightly cylindrical.

Oroyas are plants which are very reluctant flowerers in our collections. It is perhaps important to record that in habitat these plants grow at an altitude of about 12,000 ft., where light intensity is very strong. It has also been opined that it is due to this lack of intensity of light in our collections, coupled with too few warm nights during the time when they are supposed to flower, that Oroyas are such shy flowerers in cultivation. The flowers of Oroya are short, rather campanulate, and of a yellow colour with a slight tint of red at the petal tips. Oroya borchersii however has a completely yellow flower.

As stated earlier, Oroyas grow only in Peru; not only, but even there the distribution is very limited, starting from the southern part of the Department (or State) of Pasco, through Junin, thro' Huancavelica, thro' Ayacucho, up to the northern part of Apurimac. As one can from a map of Peru, Oroyas grow almost in a straight narrow zone, some 300 miles long, at altitudes of between 10,000 and 14,000 feet. In the same localities, growing with Oroya, one finds Matucana, Submatucana, Arequipa, Morawetzia and other cacti.

When the first Oroya, O. peruviana was discovered, Karl Schumann did not provide a very detailed description of it. To complicate things, for a considerably long period no more species were found. Thus it happened that, when during the last world war, some Oroyas resembling O. peruviana were discovered, these were falsely distributed under this name. But, both from the thickness of the radial spines and from the number of ribs, Backeberg declared that this was a new species which was later described as O. neoperuviana. The main difference between O. peruviana and O. neoperuviana is in the radial spines. In the former the pectinate radial spines are more robust, and it has more centrals than O. neoperuviana. In the latter the radial spines are finer and even more pectinate.

In 1932 Dr. Borchers of Bremen found a new Oroya. Bodeker who described the plant as O. borchersii (Bod.) in 1933, gave the habitat as the Chacay Pass in the North of Huaraz in the Cordillera Negra. Professor Werner Rauh of the University of Heidelberg, much later, rediscovered the plant in the Casma Pass in the Cordillera Negra, and also near the Hacienda Catac. Rauh discovered many other new Oroyas such as O. subocculta and O. laxiaveolata, both of which he found in the Mantaro Valley.

Also in the Mantaro Valley, Friedrich Ritter discovered some Oroyas which he labelled as Oroya FR 143 and Oroya FR 143a. After a detailed study, Ritter declared O. FR 143 as O. peruviana (believed lost for some time) while O. FR 143a he declared as a completely new Oroya, namely O. gibbosa n.n.

. . .to be continued

Jan. '73

C A C T I O F T H E M O N T H

Mammillarias in flower at YEAR END.

- - - - Martin L. Mooney - - - -

Genus Mammillaria Haworth 1812.

Small plants without ribs but bearing nipples. The name mammillaria meaning, having nipples or small protuberances. The tubercles or nipples are arranged in spirals, never in vertical rows. They are crowned with an areole which bears spines but never the flowers, which arise from the axils of the tubercles. There are some 250-300 (Backeberg says 367) species of mammillarias, all relatively small, some developing into large groups. Most are free flowering, and at an early age, they require no special culture. During the growing season they require plenty of water, but from about November to March only enough to prevent shrivelling.

Some species have watery sap and others have milky sap (like Euphorbias). It is quite harmless. They are almost exclusively from Mexico and the U.S.A. Very few are found in South America. There is no acceptable English common name for the genera. In Germany it is known as "warzenkaktus" meaning warty or tuberculate cacti.

Of all the species I don't know how many are in flower at this time of the year, but I will write about two which are, one of great popularity with plant lovers and one which is not.

Mammillaria plumosa (Weber 1898) Coahuila, Mexico. M. plumosa is truly a great favourite with its soft white feathery spines which make it appear like a ball of feathers. The plant is deep green, clustering to form clumps of 30 or 40 heads, 2 to 3" tall, tubercles cylindrical up to one quarter inch long, areoles are round with up to 50 radial spines that are thin white hairs one quarter inch long. They entirely cover the plant. Flowers are small, maybe $\frac{1}{2}$ ", white with a brown or reddish midrib. The seeds small and black. M. plumosa is of easy cultivation in a porous unpacked soil. Watering should be done with great care, no overhead watering at all. Keep rather dry from November to March. They are very nice to pet, I am sure I hear it pur-r-r at times. There is no common name for M. plumosa, it derives from 'plumose' which means 'having feathers or plumes; feathered'.

Mammillaria dioica (Brandege 1897) California to the tip of Lower California. Plant globular or cylindrical, slowly forming a cluster, bluish-green 6 to 8" high and to $1\frac{1}{2}$ " thick. Tubercles thick, cylindrical, obtuse up to a quarter inch long. Areoles round, radial spines 11 to 15 radiating, awl-shaped, white tipped brown or sometimes entirely reddish, a quarter inch long. Central spines 3 or 4, in young plants only one, brown, the lower one and longest, almost $\frac{1}{2}$ ", hooked upwards. Flowers small $\frac{1}{2}$ " in a ring around the top one-third of the plant. Petals lanceolate, toothed, yellowish-white with a red or brownish-green midrib. Style white, stigma with 6 yellow or brownish-green lobes. The seeds are small and black. Plants dioecious, meaning having staminate and pistillate flowers borne on different plants. To get good seeds you have to have a male and female plant. The flowers of the male plant, bearing only stamens, are larger than the female. M. dioica is a native to San Diego, in the foothills back of Chula Vista. They are just now coming into flower. M. dioica is of easy cultivation, porous soil, doesn't need a lot of water, but can take over watering. Prefers some shade. It's not a favourite with plant lovers, however I like it. Its attractive spiny covering makes a handsome plant indeed.

- REF: "The Cactaceae" Britton and Rose
"Cacti and Succulents" Hamlyn
"Arizona's Cactuses" Marshall
"Cacti" Borg
"Webster's Dictionary"

Billy 'The Kid' Bishop says the thot for today in Mexico is: "Hasta mañana"

SAN DIEGO CACTUS & SUCCULENT SOCIETY

Affiliate of the
Cactus & Succulent Society of America

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REPORT OF TREASURER, 1 Jan. '72 to 31 Oct. '72
(Examined and found correct 25 Nov. 1972 by Auditing Committee, Loyal J. Bibbey,
Anthony D'Attilio and Rose D'Attilio.) . . . Martin L. Mooney, Treasurer

DISBURSEMENTS

RECEIPTS

		Balance, 1 Jan. '72	\$ 963.83
'Espinaz y Flores'	\$ 494.76	Membership dues	436.00
Plant purchases	136.75	Plant sales	455.32
Table expenses	82.81	Table donations	126.97
Library	206.10	Prizes, gifts	620.00
Event expense	173.94	Miscellaneous	248.67
Miscellaneous	288.44	(Bal. 31 Oct '72	\$1,467.99
Total	<u>1,382.80</u>		<u>2,850.79</u>

W E L C O M E T O N E W M E M B E R S

We welcome you as new members and seek your participation with articles, etc.

D. E. (Sue) Barker
8811 Hayes Street
La Mesa, CA 92041

Robert L. Myers
7142 Frakes Street
San Diego, CA 92111

Edith Klekar
6151 Colima Street
La Jolla, CA 92037

Dorothy Williams*
6240 Wildomar Way
Carmichael, CA 95608

*Dear Mr. Mooney: Someone sent me the April and May 1972 issues of 'Espinaz y Flores' and I have enjoyed them so much that I am enclosing my check in the amount of \$3.00 for 1973 membership. I discarded the envelope 'E y F' arrived in but perhaps via you and Mr. Scott, I can say 'thank you' to whoever sent the bulletins. Looking forward to the January bulletin.

Sincerely, Dorothy Williams"

*QUOTING: "CACTUS CARNIVAL, The 7th Annual Show of the Cactus & Succulent Society of America, Los Angeles State and County Arboretum, Arcadia, July 1-4, '72:

The "Rarest" Succulent, Jensenobotrya lossowiana, a member of the Mesembryanthemaceae from South Africa was exhibited by Sam and Dorothy Williams of the Sacramento CSS, from Carmichael, California." (Photo page 223)

MAITRE D'Ames --- December 1972 Regalement....."Thanks to YOU from all of US.

Lucille BECKFIELD Nita COTTEN Madge GUNNARSON Edna HOPPER
Sophie LOYLAND Julianne RICE Lena RICE Honore ROUSH
Hazel SCOTT Harriet SOPP Suzanne TAYLOR

finis

Jan. '73