C A C T U S D I G E S T
VOLUME 39, NO. 6 - JUNE, 1979

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NEXT MEETING: SUNDAY, JUNE 10, NOON.
PICNIC IN HEAD HOUSE, MISSOURI BOTANICAL GARDEN
NO LIBRARY HOUR
Enter by Alfred Street Gate. Construction may make parking difficult. If the parking area by the gate is filled, try looking by the back of the Floral Display House. In addition to the fun and games, we will have a tour of the Prop House. Please bring your own food and drink plus one plant for a Bingo prize.

EPIPHYTIC MELOCACTUS

IN NORTHWESTERN

VENEZUELA

by

DON TAPHORN

Northwestern coastal Venezuela is hot and dry, in fact in some places it rains only a few inches every two years or so. Temperatures range between hot and very hot: 110° F in the shade on a bright day, upper 80's during a cold snap! Besides the heat and seldomly relieved drought, strong onshore winds constantly buffet these deserted plains, piling up great dunes of sand, and searching out every last drop of the life-giving liquid to carry it off to areas more in Nature's favor. The sea, too, contributes to the desolation, flooding the

low reaches with brackish water during certain times of the year when conditions of wind and tides are just right. The seawater shares the same fate as the scant rainwater, and as it evaporates it leaves behind white, crusty deposits of salt crystals. On some of the saltflats there is enough salt to support small scale mining operations by the Goajira Indians, the indigenous tribe that inhabited these parts untroubled for centuries, before the rich oil deposits attracted technological man.

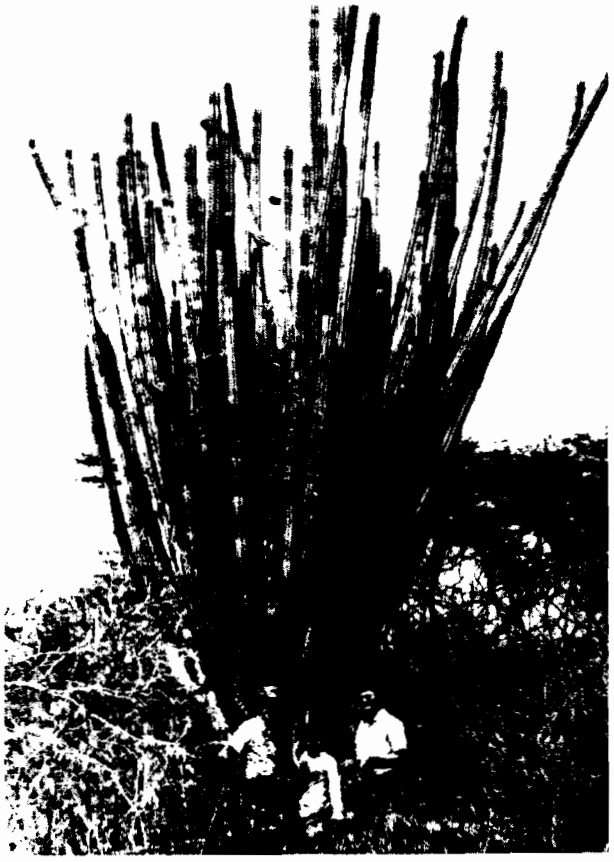
The flora of this region reflects the harsh, xeric conditions. Since leaf surface-area is so precious and so dearly maintained in terms of water loss, desert plants have mechanisms to protect their growth from hungry herbivores, scorching heat, and parching winds. Some are poisonous or bad tasting, others live primarily underground, but many seek refuge beneath an umbrella of sharp, piercing spines and thorns. Cacti thrive under conditions such as these, and it is no great surprise to find them dominating the landscape here. Cactus forests sometimes take on characteristics of vegetation in wetter climes. In this desert, the "trees" are giant towering columnar cacti (Cephalocereus, Cereus etc.), complete with birds' nests and woodpecker holes. Pereskia, or tree cacti, complete the upperstory of this forest. In place of leafy bushes and shrubs, we find prickly-pear Opuntia species forming an almost impenetrable thicket. For ground cover we have young plants of all the above and the barrel cactus Melocactus caesius.

At least, most of the Melocactus are found firmly rooted in the ground where they are supposed to be. But this article was prompted by the amazing discovery of this species living epiphytically up in trees, calmly sharing the branches with epiphytic orchids (Brassavola sp.) and bromeliads (various Tillandsia species). The locality is east of Maracaibo City, and the Straits of Lake Maracaibo near the small town of Quisiro, which is a tiny village that owes its existence to the nearby passage of an oil pipeline and the accompanying jeep track, in the state of Zulia, Venezuela. These cacti seem most out of place perched out on a limb, holding on for dear life with their roots wrapped around the branch that supports their fat, squat bodies. It's not hard to explain how the seeds get into the trees. Like the other members of its genus, M. caesius has large bright red elongate fruit which pop out of the bristly turks-cap with amazing rapidity after a rain. Dirty-faced parrots, mockingbirds and various other desert animals (including man on occasion) are more than happy to give the cactus seeds a lift in exchange for the succulent tasty fruits. Droppings left behind by birds on tree limbs contain the seeds and even a bit of fertilizer to establish the seedlings in their aerial home.

The why and how the barrel cactus seedlings survive under such conditions is not clear. For a terrestrial plant, life up a tree would seem much more demanding than its normal conditions on the desert floor. But then, it is perhaps precisely the normally harsh environment that has shaped this Melocactus into a plant that can withstand epiphytic conditions. That is, its normal existance in this desert is so difficult, that there is little difference between life on the ground and life in the tree. The roots of M. caesius do not penetrate the soil to any great depth, but instead fan out to form a shallow network over a wide area. In this way they catch as much rainwater as possible before the sun bakes it out of the earth. Apparently, roots wrapped around tree limbs can catch enough water for survival. Epiphytic cacti might even get more water since rain falling on the numerous upper branches would tend to be channeled down to the main limbs and trunk and thus would be collected from a larger area than that covered by a terrestrial plant's roots in the ground.

To my knowledge, this is the only report of a member of this genus living as an epiphyte. Perhaps careful searching in other regions inhabited by these barrel cactus will uncover more records, but for now, northwestern Venezuela is the only place known to have them.

MELOCACTUS CAESIUS



The author, Don Taphorn, (right) with friends in northwestern Venezuela

Don Taphorn is Professor of Ichthyology at Universidad Experimental de los Llanos Oriental at Guanare, Venezuela. He is a native of Belleville, IL and a graduate of SIUE and the University of Florida. He is a partner in Spring Hill Nursery of Gainesville, Florida and is equally interested in epiphytes and cacti.

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FROM THE EDITORS

This is the last issue of the Digest to appear under out editorship. Jim will be on sabbatical leave from SIUE this coming year to work on a book on the fresh-water fishes of Belize (British Honduras). Kathleen is also cutting down on her musical and other obligations to play a supportive role. We have greatly enjoyed editing the Digest and very much appreciate the strong support the Society has given the Digest.

Jim and Kathleen Thomerson

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LIBRARY CORNER

BY GISELLA GOLASZEWSKI

We have added a new book to our library on Sempervivums and Sedums called "Plant Jewels of the High Country" by Helen E. Payne. This book provides a great deal of interesting information not previously available, as well as worthwhile tips on growing these little "hen and chicks". It has 111 color plates and describes 187 species and varieties of these little rock garden beauties.

Also, a former member of our society has kindly sent us a copy of his 16 page Key to Identifying the Genera of the Cactaceae, the Cactus Family, as easily as possible. It identifies 141 genera. He has written this himself and is now doing graduate work at Cornell University in New York. I am sure this will be of great help to all our members.

PRESIDENT'S MESSAGE

Many thanks to those who worked at the workshops held at the Missouri Botanical Garden and at the Stix, Baer & Fuller Show May 7 - 12. Both were our first adventures in this direction -- both were successful.

Also, I would like to thank Kathy and Mike Dickman, chairpersons for the Tulsa trip, for a job well done!

BETTY DEMZIK

BEST SALESGIRL OF THE YEAR

by
SHIRLEY SCHAEFFER

I vote for Kathy Dickman because she sure sold me a story! Returning home on the bus from attending the Tulsa Cactus Show, Kathy was telling us in a very quiet convincing voice (rolling those big innocent eyes) how she is going to insulate her greenhouse by covering the pipes with the cardboard rolls inside of toilet tissue and paper toweling. I and a few other people were already thinking how we'd be able to save these rolls for her and it would help her insulate a lot faster.

After a while a sneaky grin came upon her face and we then knew we'd been fooled. It sure did sound like a good idea!
