

# The Search for *Coryphantha ramillosa*

by Kathleen C. Rice



On an early fall morning in 1997 in west Texas, our small group was eating breakfast at the Basin Lodge restaurant in the Chisos Mountains of Big Bend National Park. Surrounded by spectacular views of the limestone cliffs and crags, lush with juniper, pines, and grasses, we watched the pale orange of the early sun angle against the rocks, delicately spotlighting each plant. We had driven down from the Desert Botanical Garden in Phoenix, Arizona, to survey the single known occurrence of a rare cactus at the park. Although we'd visited the site on several previous occasions, we were now intending to set up permanent monitoring transects and establish a species seedbank.

The bunched cory cactus (*Coryphantha ramillosa*) was listed in

1979 as threatened under the Endangered Species Act. Small population numbers, patchy distribution, restricted habitat, and collection were cited as the primary threats. *Coryphantha ramillosa* was discovered in 1936 by A.R. Davis and was described by Ladislaus Cutak in 1942. It is a multi-headed cactus, with stems that can grow up to about 3 inches (7.5 centimeters) in diameter. The flowers are pale pink to deep rose, and the fruits are green and juicy at maturity.

Dr. Ted Anderson led our expedition, assisted by Bob Schmalzel, a research associate, and me. Dr. Anderson had been regularly visiting the Big Bend area since 1953, and he was very active in monitoring rare cacti in Mexico. This lifelong botanist, a professor of botany at Whitman College, Washington, for

decades and a senior research botanist at the Desert Botanical Garden since 1992, had a passion for species of little cacti. Dr. Anderson was internationally renowned for his work on the IOS Cactus Consensus Initiatives and his contributions towards implementation of the Convention on International Trade in Endangered Species of Wild Fauna and Flora, better known as CITES. An accomplished and productive writer, he was most famous for his books, *Plants and People of the Golden Triangle*, *Threatened Cacti of Mexico*, *Peyote: The Divine Cactus*, and *The Cactus Family*, which was published just last year. Bob and I were indeed fortunate to be assisting him in this fieldwork.

That morning at the Basin Lodge restaurant, we discussed the potential

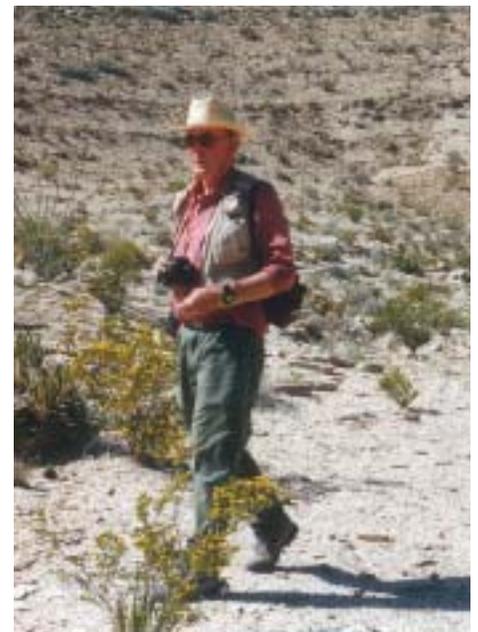
that *C. ramillosa* might occur on nearby private ranches. We speculated wistfully that if only we could gain access to some of these areas, we may be able to make a case for getting this and perhaps another of the area's other cacti delisted. Maybe landowners would then become more open to botanical surveys. A man soon appeared at our table. "My name is Jim Talbot," he said, "and I couldn't help overhearing your conversation. I've had a long-time interest in botany, and think I can help you get onto some of the privately owned land closeby." Talbot was a banker from Sanderson, Texas, who happened to have a B.S. degree in botany. He was excited about being able to help.

We arranged to meet Talbot the following day and, with permission, drive onto some privately owned land. He guided us to the properties, and we all searched at each location for *C. ramillosa* plants. Generally we were able to find them once we had a feeling for the type of sites the plants prefer. The species was surprisingly common in characteristic habitats. We had permission to obtain voucher specimens, and we collected several live plants to be studied and propagated at the Desert Botanical Garden. Seed was collected from each plant for similar purposes. We

documented each location with photographs and took GPS (Global Positioning System) readings to indicate five new sites. The information we gained suggests that populations may extend even farther east than previously believed.

Two permanent transects are now established, and heights and diameters of plants in the study area are measured. Growth rates were formerly estimated by painting the tips of apical spines and noting the location of marked spines as plants increased in size, but now size of plants is measured. Reproductive capacity is assessed by counting flowers and fruits per plant, and numbers of seeds per fruit. Long-term monitoring of *C. ramillosa* is required to determine if there is a link between growth or size and fruit production.

For over a year, we continued regular correspondence with Talbot until we were contacted by Mrs. Talbot in December 1998. She told us of Jim's sudden accidental death by a fall from a ladder. Stunned by this news, we realized what it also meant for our continued chances of exploring for *C. ramillosa* on private land. Since then, we have also lost Dr. Anderson to a sudden death resulting from health complications. Those of us who assisted him are struggling to reformulate ways to



**The late Dr. Ted Anderson at one of the *Coryphantha ramillosa* sites.**

continue the work without Ted's guidance and contributions. Monitoring and attempts to access unexplored sites are ongoing, but new alliances must be made.

Fresh approaches, incentives, and inventive cooperative agreements will spearhead future attempts to learn more about the wonderfully diverse and unique flora of Texas. In order to personally relate botanical exploration to landowners, the example set forth by Dr. Edward Anderson should be a model for those who follow. An honest, open, friendly approach is essential. Efforts will be further extended by attempting to become accepted into the social network of landowners in a more personal context.

---

*Kathleen Rice is Curator of Rare and Endangered Plants at the Desert Botanical Garden in Phoenix, Arizona; KathyRice@uswest.net; telephone 480/481-8137.*

***Coryphantha ramillosa* in cultivation (opposite page) and in the wild (left).**

*Photos by Kathleen C. Rice*

