

The Plant Press

THE ARIZONA NATIVE PLANT SOCIETY

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WINTER, 1994

LAND TRUST WORKS TO PRESERVE MCDOWELL MOUNTAINS

by Dean Brennan

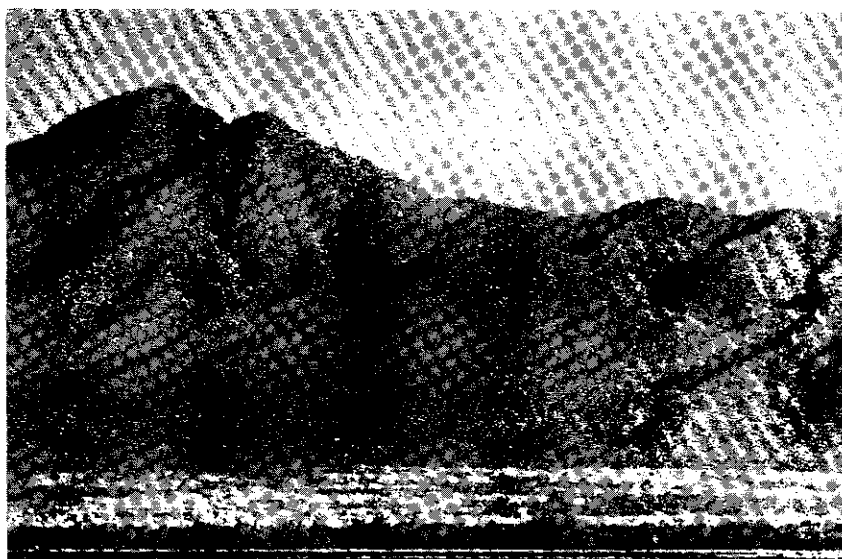
SAVE THE MCDOWELLS! That's become the rallying cry for a group of concerned Valley residents who have taken up the cause of preserving the mountain range directly in the path of urban development in Scottsdale. They have organized under the banner of the McDowell Sonoran Land Trust (MSLT) and are spearheading the creation of a new preservation effort in Scottsdale that will benefit not only Scottsdale but the entire Valley.

Remember the efforts in Phoenix to save the Phoenix Mountains? The Phoenix Mountain Preserve was created as a result - saving many of the slopes and mountaintops that otherwise would have been developed. This is a similar effort, although it may be even more important. The McDowell Mountains have a more unique and diverse ecological system than that which exists in the Phoenix Mountains. In addition, the McDowell Mountains provide the opportunity to preserve a larger area included in a single continuous unit.

The McDowells are a prime example of verdant Sonoran Desert with whole forests of saguaro cactus, jojoba, cholla, palo verde, mesquite and ironwood trees. They provide a living history lesson, with old mines, ruins of homesteads, remnants of territorial ranches and traces of Native American culture, including petroglyphs and ancient village sites.
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Urban Development Encroaches on the McDowells

NOTES FROM THE PRESIDENT

Greetings and best wishes for a great 1994 to all personally and to the ANPS! May the coming year be one of health, happiness, prosperity and achievement for us and the society.

I draw your attention to our ANPS Annual Appreciation Award that Barbara Tellman reports on elsewhere in this issue. Peter Gierlach of Desert Survivors in Tucson was the first recipient of our award which was presented to him at our 1993 Annual Meeting in Yuma. Nominations for the 1994 award are very much welcomed. If you have someone in mind who has made outstanding contributions toward the furtherance of the goals of the ANPS, please follow the nominating instructions which Barbara provides.

This issue of the *Plant Press* features an article concerning the mission and work of the McDowell Sonoran Land Trust. I am currently serving on the Board of Directors of another newly formed land trust, the Superstition Area Land Trust, or SALT. Both of these grassroots, nonprofit organizations share much with our Arizona Native Plant Society in terms of their mission and goals. I would like to take this opportunity to introduce you to these allied organizations and to make you more familiar with their aims and activities. My thanks to Rosemary Shearer of SALT for permission to borrow freely from her draft SALT brochure.

First of all, what is a land trust? A land trust is a community-based nonprofit organization formed as a means of protecting the community's natural resources, including plant and animal communities, and cultural sites. At the present, there are over 900 active land trusts in the United States.

The Goals of the Superstition Area Land Trust are representative of others:

- To determine the destiny of our lands.
- To conserve and protect native plant and wildlife species.
- To preserve important cultural sites.
- To educate and inform the public on availability and appropriate uses of existing open spaces.
- To help formulate and coordinate open spaces policy by local agencies and jurisdictions.
- To strengthen the alliance between the children of the community and the land.

To achieve these goals, protection can be provided through gifts, granting of easements, purchases or bequests of land or other resources exchangeable for land.

Gifts. Land can be donated to the Trust outright with the provision that the land remain in its natural state in perpetuity. Donors may be eligible for a tax deduction based on the assessed monetary value of the land. Entire properties or portions may be deeded to the Trust. Contingencies for retained use privileges during the lifetime of the owner or other designated persons may be included in the agreement.

Easements. Conservation easements are restrictions that landowners voluntarily place on their property and which are legally binding on the present and future owners. For example, an owner may prohibit development of an ecologically sensitive property harboring a particularly valuable and rare plant community, thus protecting it for all time.

Purchases. Properties determined to have high conservation significance may be purchased outright. Such properties are usually purchased at well below market value, allowing the owner to recover part of the land's value and obtain a limited tax reduction while furthering the goals of the Trust. Funds for such purchases are obtained through donations of cash or saleable property to the Trust.

Bequests. The Trust may be named as beneficiary of a donor's estate. In this case, inheritance tax advantages may greatly benefit the donor's heirs.

So much of what we care about and hold dear as the Arizona Native Plant Society is tied directly to land in its natural state. Land trusts can insure that adequate tracts of natural lands are retained in the varied biotic communities of our unique and beautiful state. And they can help to guarantee that our descendants will be able to enjoy at least part of the bountiful natural heritage that we were bequeathed.

For more information regarding SALT, write to SALT, 3650 S. Blackhawk Rd., Gold Canyon, AZ 85219.

EDITOR'S COMMENTS

Land trusts have been around for a long time. There are about 1000 of them across the US; six exist in Arizona. They are usually created to protect specific areas of ecological, historical, or archaeological significance, or even, as Chet Andrews puts it, "something pretty." And he is quick to add that the McDowell Mountains have all of these features. Andrews is chairperson of the McDowell Sonoran Land Trust which was formed three years ago to preserve these spectacular mountains in the Phoenix area. With development approaching ever closer, Dean Brennan takes a look at the land trust's work and why the McDowells should be protected.

Then, come along for a ride in "Biosphere 3" with nurseryman and self-avowed plant nut Greg Starr as he explores the Chihuahuan Desert of northeastern

Mexico. Starr has introduced some interesting species for ornamental cultivation in the Southwest. He gives us his unique perspective on plant collecting and its associated joys and sorrows in "A Collecting Trip to Northeastern Mexico."

And for plant exploring of a different sort, "Pressed Pages" contains a review of *Tales of a Shaman's Apprentice* by Mark J. Plotkin who has spent over a decade among Amazonian tribes searching for medicinal plants.

A happy and peaceful 1994 to all of our readers! With this issue, we begin a quarterly schedule. The next newsletter should be in your mailbox sometime in March.

Balbir

NOTES IN BRIEF

Recently the Yuma Chapter sent representatives to a hearing before the Yuma County Commissioners to protest the construction of open-air sewage drying beds in eastern Yuma County. This area is a prime wildflower viewing area and is believed to contain a number of endangered species. In partnership with residents of the sparsely settled area, chapter members were able to block approval of the project.

The U of A Desert Lab will be celebrating its 90th anniversary this spring with an open house and seminar day. In conjunction with this event, the old library, opened in 1903-1904, is being renovated to its original style and architecture. Once re-opened, researchers and students of desert ecology will be able to use this historic facility. Watch for announcements on the exact date for this special event.

The Desert Lab now publishes a quarterly newsletter about research topics in desert ecology. If you are interested in receiving it, call (602) 629-9455 and leave a message for Muffin Burgess.

HIGH ON THE DESERT

The first High Desert Gardening and Landscaping Conference, will be held Thursday and Friday, February 17 & 18, 1994 in Sierra Vista, Arizona.

For more information call the University of Arizona Cooperative Extension office, (602) 458-1104, Ext. 141 or write ATTN: Rob Call, 1140 N. Columbo, Sierra Vista, AZ 85635.



A COLLECTING TRIP TO NORTHEASTERN MEXICO

by Greg Starr

Earlier in the year Ron Gass from Mountain States Nursery asked me if I would like to travel to San Antonio for the AABGA meeting, then down to northeastern Mexico for a plant collecting trip. We had traveled together in the past and had some memorable trips, so I jumped at the chance. On the return drive from San Antonio to Tucson I reflected on the trip and have tried to make sense of this latest foray into the Chihuahuan Desert region.

Day 1

Prior to Ron's arrival from Phoenix, I had gathered everything I would need for this trip. Everything except for all those things I forgot and would eventually need on the trip. We loaded all the necessary equipment (minus the important items we forgot) into an admittedly imperfectly sealed Biosphere 3 and figured if we had forgotten anything, we could always open the doors (after all Biosphere 2 had) and obtain what we needed. We knew the doors would open more than once since we could only cover 300 miles on one tank of gas. We finally left Tucson around mid morning and had to open the doors for the first time for lunch in Willcox. We drove through New Mexico and west Texas under the presence of dark, threatening skies. The rain did fall for the first two days.

Day 2

We enjoyed a comfortable night in Fort Stockton and decided to turn our attention to plants and not the weather. The rain was persistent and we realized that it would be with us for most of the day. We stopped somewhere in the Hill Country of Texas to collect seed of a green leaved *Dasyliirion* species. As we walked down the road we were amazed to see a flock of wild turkeys fly by and land in the field nearby. Near the end of the day I realized that seeing the wild turkeys was going to be the most exciting thing to happen that day.

Day 3

The variety of topics at the AABGA talks was interesting. Mexican bulbs for U.S. gardens, plant exploration in northeastern Mexico, botanical gardens in Mexico and Mexican plants at the San Antonio Botanical Gardens were some of the topics covered. Ron and I were the last talk scheduled. They were running late and we thought that we would get out of having to do it. No such luck! We performed our tag team talk, then had to wake everyone up (except Marty) when the lights came back on.

Day 4

After the 3 hour drive from San Antonio to Eagle Pass, Texas, we are faced with crossing the border. What an experience! Even with the necessary papers filled out beforehand and all necessary receipts (we thought) for insurance, it still took over an hour. I wish they could streamline, maybe computerize, the process.

We finally get on the highway and away from Piedras Negras. Now we could push south on our quest for neat plants. Driving south on highway 57 towards the town of Sabinas we look towards the west and the beckoning mountains. However, there are intense thunderstorms all around the mountains, and we do not want to get separated from the main road by a quickly flowing wash. Our main objective is still south, and in the fading daylight we decide to hunt for an adequate camping spot. We drove between two large mountain ranges. The Sierra Pajaros Azules to the northeast looked very intriguing. Unfortunately we did not see any way to get back into them. We finally found a road that was not fenced off, so we drove on it until we found a suitable camp site.

Day 5

Shortly before dawn we awoke to the songs and calls of mockingbirds and quail. The air was filled with the aroma of Mexican oregano as we ate our breakfast of oatmeal and fruit. We broke camp and headed down the road, but after a quarter of a mile we stopped to collect seed of an attractive, small evergreen tree. By now we had opened the doors to Biosphere 3 more times than they had for Biosphere 2. As we walked through the desert looking for more seed, we would brush against the Mexican oregano releasing more of its wonderful fragrance. Looking around we could see the mountains with their tops cut off by the ever present clouds. The area was intriguing, but the mountains south of Monclova kept calling our names.

We thundered across the desert to the Sierra La Gavia and were immediately awed by the eerie sight straight out of "Poltergeist". The shaft of light beckoning us to the otherwise dark, cloud encased pass made me think we were about to pass into another dimension. The vegetation was fantastic. There was *Bauhinia lunarioides* with flower color ranging from pure white to a solid, dark pink. One stop was incredibly rich with plants. Our list included *Vauquelinia corymbosa*, *Dasyliirion* sp. (a green leaved form), *Emorpha suaveolens*, *Rhus virens*, *Acacia rigidula*, *Agave scabra*, *Agave lechuguilla*, *Dalea greggii*, *Tecoma stans* and

berlandieri. We found a low, mounding *Salvia* species with green leaves and dark blue flowers.

Once again our stay in another fascinating area had to be cut short by the quest for an appropriate campsite. On our drive to find a good site we were intrigued by a mountain with a peak called Pica Candela that was mostly encased by clouds, but sometimes peeking out and revealing why it was named Candle Peak.

Day 6

What looked like a promising campsite rapidly deteriorated upon the arrival of the first of eight trains rumbling across the desert no more than 150 feet from our site. Each time the piercing shaft of light and the ominous rumble would have made another sane person choose another spot. However, neither of us felt like trying to find a different site in the middle of the night. With each passing of a train the truck would shake and shudder as if in the middle of an earthquake. By morning, both Ron and I felt well rested in spite of the frequent interruptions. I guess wolves and other wild animals will alternate short periods of sleep with short periods of being awake. This seemed to be effective for us as we both felt fine all day long. We broke camp early and headed to the mountain range that was to occupy the rest of our stay in Mexico. We got to the Sierra Bustamante which we were told had *Brahea bella*. This beautiful palm occupies the ridges that, for this trip, were unattainable. Even if we had the time to hike to the plants, we were not convinced that there was seed on them. We met a man who worked for the government collecting weather data. He told us of bears and pumas inhabiting the mountains. He said the bears ate the palm seeds and the pumas ate the goats. We were able to collect seed of a form of *Mascagnia macroptera* that we hope is hardier than the form currently grown. We also found two different plants that had the fragrance of China lily. They are not even related, but we thought it interesting that they had similar fragrances.

The surrounding limestone mountains provide an awesome site. Sheer vertical rock faces, some reaching nearly 300 meters high, dwarf everything around them. Even in this setting of cathedral like mountains, the most stirring sight to Ron was of the millions (billions?) of butterflies migrating south. Ron's fascination was with the notion of one of nature's most beautiful and fragile creatures traveling perhaps hundreds of miles to destinations unknown. While I was contemplating what would happen if they all sneezed at once.

With the border crossing looming we decided to beat out of the mountains and head north for Laredo. We reluctantly closed up Biosphere 3 and turned our attention to the expected hassle with bringing seed back into the United States. During the drive north we were

constantly traveling through the migrating butterflies. The whole time back to Laredo I could only wonder at their sheer numbers as we thundered through their masses smashing hundreds with our truck.

We finally reached the border crossing with our cleaned seeds and permit in hand. We were not subject to the usual grueling questioning. Instead the agricultural inspector looked at our seed, asked a few questions, then sent us on our way. We headed back to San Antonio for a good night's rest prior to our long drive back home.

Day 7

We set our sights for Las Cruces, New Mexico, then Tucson and Phoenix if we felt allright. Being the plant nuts that we are, we had to stop and check a population of *Yucca pallida* for seed. As we were walking from plant to plant, Ron noticed a snake lounging on a rocky ledge. We decided to take a look and see what kind it was. After 5 seconds of us standing and staring at it, the snake figured he better scare us off, and with a shake of its tail we all dove for our respective shelters - the snake into the rocky outcrop, and Ron and I into Biosphere 3. So with our hearts still thumping we decided to concentrate on getting our plant material home.

With 1000 miles of driving, we spent a lot of time reflecting on the trip and writing down some of our thoughts. We pulled into Tucson around 9 pm, Ron dropped my gear and me off at home, said hello to my wife, then disappeared into the night bound for Phoenix. The rest of my night and the next day were spent reliving the trip, checking on seed and trying to catch up on a week's worth of messages.

Gregg Starr is owner of Starr Nursery in Tucson which specializes in arid-land plants.

ANNOUNCEMENT

CHAIRPERSON NEEDED by March to coordinate ANPS Natural History Labor Day Weekend in Chiricahuas. All past organizational information on this workshop has been compiled in a notebook as well as on computer disk-Mac/IBM. This workshop is held at the Southwest Research Station. Chairperson is customarily compensated by free attendance at the workshop. Contact Tucson ANPS Chapter c/o Cindy Salo, President, PO Box 41206, Sun Station, Tucson, AZ, 85717, or telephone (602) 623-5120 if you are interested.

(Continued from Page 1)

There is desert wildlife at its most diverse and abundant - great horned owls to horned lizards, kangaroo rats to ringtail cats, tarantulas to turkey vultures, prairie falcons to desert tortoises and even thriving populations of mule deer and javelina.

There are unexpected surprises. Grassy meadows snuggled amongst boulders on mountaintops, slabs of granite that soar 15 stories tall, winter storms that blanket the desert flora with snow and a freshwater spring that trickles ceaselessly from a craggy area on one of the mountainsides.

As you can imagine, the McDowells have a lot to offer to hikers, bird watchers, students, equestrians visitors and anyone with an interest in the flora and fauna of the Sonoran Desert. But according to Chet Andrews, Chair of the MSLT, only a fraction of the area is set aside for public use and long term preservation.

That's why the MSLT was formed - to serve as the community group to focus public attention on the possible loss of this unique physical amenity to extensive development. MSLT is a private, nonprofit corporation that can purchase land, accept donations of land, and accept conservation easements that limit how a parcel of land can be used. The group works with property owners in a nonadversarial role and strives for solutions that can benefit the entire community.

Unique Vegetation

As noted above, there is a variety of Sonoran Desert vegetation present in the McDowell Mountains. Because of the elevation of approximately 4,000 feet, the growth is more lush than that found in the Valley areas spreading out from the base of the mountains.

Quite possibly the most interesting vegetation from a historical/archaeological standpoint may be a small stand of *Agave murpheyi*. This agave does not occur naturally in the McDowell Mountains and is generally associated with cultivation by Native Americans. Its presence in the McDowell Mountains would appear to indicate that the Hohokams cultivated this agave when they lived in this part of Arizona.

Another agave normally not encountered naturally in the Phoenix area is the yellow-flowered agave, *Agave palmeri* var. *chrysantha*. This agave normally appears at higher altitudes. Fortunately, the McDowells provide the necessary altitude for it to flourish.

MSLT Activities

What has the Trust done in the community to raise public awareness? It has placed a major focus on the education of the public and has received an award from Valley Forward for Environmental Excellence. Examples of some of the educational activities include:

1. Video - MSLT produced a video in conjunction with the Coronado Vocational High School video class. Entitled "A Trust for Tomorrow - Preserving Our Desert Mountain Heritage," it has been shown on the Phoenix Channel and may be used by KAET for an "Horizon" program.
2. Speakers Bureau - MSLT has established a Speakers Bureau in order to publicize the need for preserving the McDowells. The presentation includes a series of slides that depict many of the mountains' unique and beautiful features.
3. School Education Program - After meeting with and receiving approval from the Scottsdale School District for a proposed 4th grade education program, MSLT has begun working with several elementary schools to schedule assemblies and hikes. To date, sixteen schools have committed to assemblies and six others have scheduled hikes. The school programs provide a great opportunity to raise public awareness.

Those are examples of the educational efforts that the MSLT is currently involved with. There are other areas of focus, such as the McDowell Mountain Task Force, fundraising activities and a newsletter. If you would like more information about MSLT, or better yet, if you would like to become a member, please fill out the following form and mail it to the MSLT.

I would like to become a member of the McDowell Sonoran Land Trust.

Name _____
Address _____
City _____ State _____ Zip _____

- | | |
|-------------------------------------|----------|
| <input type="checkbox"/> Junior | \$ 2.00 |
| <input type="checkbox"/> Individual | \$25.00 |
| <input type="checkbox"/> Family | \$35.00 |
| <input type="checkbox"/> Supporting | \$75.00 |
| <input type="checkbox"/> Other | \$ _____ |

I would like additional information.

MSLT
P.O. Box 14365
Scottsdale, Az. 85267-4365

PETER GIERLACH RECEIVES ANPS' 1ST ANNUAL APPRECIATION AWARD

Nominations Needed for 1994

Peter Gierlach was the first recipient of the new Arizona Native Plant Society Native Plant Appreciation Award at the ANPS 1993 Annual Meeting in Yuma. Peter is the greenhouse manager for Desert Survivors, a nonprofit organization in Tucson which works with developmentally disabled adults in a nursery/plant propagation/landscaping setting. Seeds are collected, plants grown and the nursery business conducted while training members.

When Peter joined Desert Survivors, native plants were only a small element of the nursery. Last year the annual sale featured over 200 arid-lands species of which over 80% were Arizona natives. Many native plant aficionados consider Desert Survivors to be the best native plant source in southern Arizona. Peter was also cited for his work in furthering understanding of native plants in his role as Petey Mesquitey on radio station KXCI. Peter was president of the Tucson chapter of ANPS from 1989-1991.

Do you know of someone or some organization deserving the 1994 award? The awardee can be a volunteer or paid professional. The organization can be nonprofit, a government agency or a business. Nomination forms will be available in late February, with the deadline for nominations July 1. Awards will be made at the Annual Meeting in Pinetop next September.

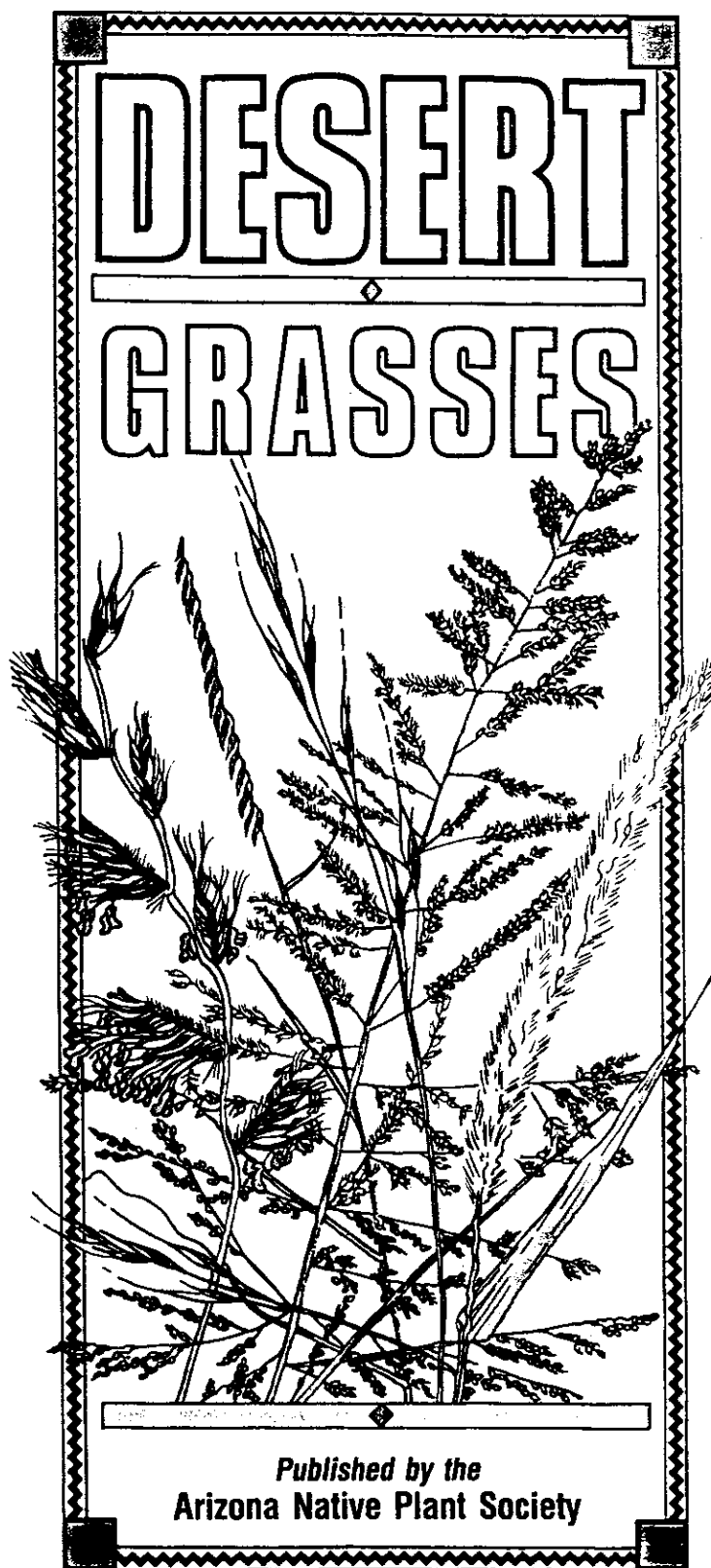
For more information or nomination forms, contact Barbara Tellman at (602) 792-4515 (evenings) or 792-9591 (days).

Barbara Tellman

HAVE YOURS YET?

The latest booklet from ANPS, *Desert Grasses*, is out! And this is another one you won't want to miss out on. Information on grasses, especially for ornamental and revegetation uses, can be hard to come by. Thirty species are described here along with their uses. Color photos and line drawings (by Jane Evans, Lucretia Breazale Hamilton and others) are also very helpful.

To order, contact: Arizona Native Plant Society, PO Box 41206, Sun Station, Tucson, AZ 85717.



PRESSED PAGES

Healing Tales from the Amazonian Rain Forest

Tales of a Shaman's Apprentice

by Mark J. Plotkin, Ph.D

Viking Press

"...Twisting off the cover, the Jaguar Shaman knocked the contents several pieces of white fungus into his open palm. Turning my head to the side, he squeezed sap from the fungus first into one ear and then the other. Finally he began chanting a slow and soft mournful dirge and washing me with a warm solution; he gave me a tea to drink, and I fell asleep." When author Mark J. Plotkin awoke, he found his strength returning from what he realized must have been an ear infection.

In his new book, *Tales of a Shaman's Apprentice*, Plotkin describes his work as an ethnobotanist living and working among native Amazonian tribes. Interested in studying rain forest plants and their uses, he explores the world of shamanism, which combines the use of wild plants and rituals for healing purposes. The book relates in an entertaining, at times harrowing or even humorous way, his experiences as he comes into contact with these cultures. It is a fascinating story of people that know how to live in an intimate relationship with their environment without destroying it. People that over thousands of years have developed a keen knowledge of the rain forest ecosystem.

It was to learn from this knowledge that Plotkin set out to Surinam in 1979. By this time, the curative properties of rain forest plants had been well-proven. For instance, quinine, an alkaloid derived from the South American cinchona tree, had already been used for hundreds of years as an antimalarial drug.

Before leaving on his journey, Dr. Richard Schultes, his Harvard mentor and author of *The Healing Forest*, tells Plotkin that "He believed (his) would be the last generation fortunate enough to be able to live and work among these tribes as he had..." After working with the shamans, or medicine men, and watching them collect herbs or sap from a tree or a certain fungus and perform their mysterious rituals, he realizes the truth in Schultes' words and the urgency of his work. "Each time one of these medicine men (or women) dies, it is as if a library has gone up in flames," he writes.

As his guides lead him through the rain forest, Plotkin is overwhelmed by their knowledge. All around it seems are plants with medicinal properties, and often, as with the copal tree, plants that have both medicinal and industrial uses. The book is rich with details on plant uses from a historical perspective.

On one of his expeditions to Surinam, Plotkin searches for the elusive Tirio Indian recipe for curare, a poisonous mixture used by the Indians (applied to the tips of arrows or on blowdarts) for hunting. The recipe varies from tribe to tribe. One might at first question the benefits of such knowledge. Yet Western medicine has experimented for years with curare to treat various ailments. Today, an alkaloid derived from curare is used in virtually every Western hospital as a muscle relaxant during certain surgeries.

Plotkin is currently Vice President at Conservation International (CI), a global organization committed to conservation of rain forests and other ecosystems. He spoke about CI's work and his experiences in South America recently at the University of Arizona in a talk sponsored by the Tucson Botanical Gardens.

The lessons learned about preserving the rain forest and its peoples can also be applied to the Southwest, he emphasized, referring to CI's ironwood project here in the Sonoran Desert (see *Plant Press*, Summer '92). "We're standing at a precipice," he said in closing. "Thousands and thousands of years of knowledge is going to disappear over that precipice. Plants are disappearing quickly, but the knowledge is disappearing even faster."

In order to help stem these staggering losses, the Shaman's Apprentice Program was begun. A percentage of the profits from Plotkin's book is used to translate his research into the native language. Young apprentices are then trained to use and safeguard the legacy of their ancestors. A legacy the whole world has come to realize is precious indeed.

Reviewed by Balbir Backhaus

CORNER

by Julia Fonseca

PUBLIC FORUM ON THE ECOLOGICAL IMPACTS OF FOREST ROADS

On February 8, the Sky Island Alliance (SIA) is planning a public forum to discuss all of the future road projects in the Coronado National Forest. At the forum, the public will have an opportunity to view road projects in sky island regions as a whole and to discuss cumulative impacts to native plants and animals with scientists, forest service officials and activists. The forum will be held the evening of February 8 at the 1st Christian Fellowship Hall, 740 E. Speedway, in Tucson. Call Susie Brandes at 323-0547 for more information.

Over the last few decades, studies in a variety of ecosystems have demonstrated that many of the threats to biological diversity are caused or aggravated by roads. Besides direct mortality, roads can cause habitat fragmentation and erosion and sedimentation. They can introduce exotic species and enhance illegal collecting of plants and animals. Despite heightened recognition of the harmful effects of roads, road density continues to increase in National Forests since abandoned roads are seldom closed and new roads are being constructed.

Nationwide, the US Forest Service plans to build or reconstruct almost 600,000 miles of roads in the next 50 years, making them the nation's largest road-building agency. While most of the roads will be constructed or upgraded for logging, in southeastern Arizona, roads are proposed primarily for recreation and mining. New or proposed roads that you may have heard about include John Long Canyon in the Chiricahua Mountains, several in the Redington Pass area near Tucson, and of course the roads for the Mt. Graham observatory in the Pinalenos. In addition, the Mt. Lemmon Highway in Bear Canyon in the Catalina Mountains will be upgraded, possibly threatening the southernmost population of *Populus angustifolia*, and the largest known Arizona cypress.

MANAGING THE GILA BOX

To avoid a wilderness designation, Congress established the Gila Box Riparian National Conservation Area in 1990. The Gila Box RNCA is located near Safford, and includes portions of the Gila and San Francisco Rivers, as well as portions of Bonita and Eagle Creek. The riparian ecosystems are dominated by mesquite and cottonwood. Desert grasslands surround the scenic, steep-walled canyons cut by these free-flowing rivers.

The Bureau of Land Management (BLM) seeks public input about how they propose to manage the area. The BLM believes that the condition of riparian areas can be improved by reducing livestock grazing, but the plan would allow grazing to continue on two-thirds of the riparian corridors. Grazing would be reduced in the remaining one-third by shifting livestock use to the uplands by providing new fences, pipelines, roads and stock tanks. Livestock use in the desert grasslands has been limited by lack of water and poor access.

The BLM is also preparing fire management policies for the RNCA, which will include the use of prescribed fire to improve the condition of the uplands, which are listed as being in good to excellent condition.

Currently, 15 miles of Bonita Creek's floodplain and 23 miles of the Gila River is open to off-highway vehicles (OHVs). Under the proposed plan, legal OHV access to the floodplain would be reduced or discouraged, particularly in Bonita Creek. According to the BLM, driving in the floodplain is not thought to be particularly damaging to plant life. However impacts would be difficult to assess since there are no OHV-safe areas to compare too! The proposed plan calls for over \$4,000,000 in new roads, road upgrades and road maintenance over the next 15 years. The new roads are primarily outside the floodplain, although one OHV access point will be constructed to facilitate use of the Gila River bed upstream of the RNCA.

If you would like to comment or review a copy of the plan, contact Jonathan Collins, BLM, 711 14th Avenue, Safford, AZ 85546.

WILD AND SCENIC RIVERS RECOMMENDED

The BLM has also issued draft recommendations for "wild" and "scenic" river designations in Arizona. These Congressional designations would protect riparian corridors from dam building and certain other activities. Among others, the Paria, Virgin, Agua Fria, Bill Williams and Aravaipa River corridors were recommended as suitable for protection. Surprisingly, none of the 33 eligible miles of the Hassayampa River were recommended by the BLM, which is particularly unfortunate since dams have been proposed along this stream. In southern Arizona, BLM did not recommend Swamp Springs, Cienega, Turkey, or Hot Springs Creek for protection because it found these were not sufficiently outstanding.

The BLM's findings are contained within "suitability" reports available for review in the Sierra Vista and Tucson (Wilmot) public libraries. The suitability reports provide valuable information about water

quality, land ownership and riparian habitat along many important Arizona streams.

Comments regarding the Wild and Scenic Rivers studies should be directed to your local BLM office and to your local Congressional representative. Congress makes the final decision regarding Wild and Scenic Rivers.

ENDANGERED PLANT UPDATE

Under the Endangered Species Act, the US Fish and Wildlife Service prepares lists of species that are under consideration for endangered or threatened status. This list, called the Notice of Review, has been updated and is available from USFWS at 3616 W. Thomas Rd., Suite 6, Phoenix, AZ, 85019.

In addition, USFWS has published a recovery plan for Coryphantha robbinsorum. This plant is found only on limestone hills in the San Bernardino Valley of Cochise County and extreme northern Sonora, Mexico. Most of the cactus stem is underground. Cactus collecting, potential mineral exploration and habitat degradation are the principal threats to this rare plant. This cactus is already available in commercial trade, and plants or seeds are available from several nurseries.

A Chance to Educate Children About Caring for Native Plants

Can you spare four Fridays this spring to help a Phoenix 4th Grade teacher teach her students about the desert? For six years, Cheri Balkenbush, Shaw Butte Elementary School at Cactus & 19th Ave., has taken all her school's 4th graders to nearby Shaw Butte for a day of learning about the desert. Beautiful springtime flowers garnish Shaw Butte as do saguaros 6-10" tall that students have planted. Last year they carefully planted the 102nd young saguaro near a nurse tree in a revegetation project endorsed by the Phoenix Parks & Recreation Dept.

She needs more "teachers" - specialists to instruct and guide 9-12 students through activity stations while they are on Shaw Butte. Plant adaptations and other desert discovery topics need to be taught. Two to three ninth grade biology students from the Mesa School District will help guide each group of 4th graders.

This "Desert Caretakers" Project will be one the 4th graders from Shaw Butte will never forget. Help them learn lessons they will always remember by volunteering to help on four beautiful spring Fridays from 8 am to 3 pm. The dates are February 25, March 4, March 11, and March 25. Call Cheri Balkenbush, 978-2654 or Larry Langstaff, Mesa School District, 813-0555.

ANPS WELCOMES ITS NEWEST MEMBERS

Anderson, Dr. Edward F.
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Ferris, Elaine
Finberg, Kathy
Fox, Kim
Gildemeister, Ines
Granite Seed Company
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Hamilton, Margot A., Ph.D.

Hammond, H. David
Hannig, Muriel
Hogan, Phyllis
Horton, Jim & Karen
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Hultman, Vivian
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Keller, Jim
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Pennsylvania Native Plant Society
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Reed, Mr. & Mrs. Ed
Reigelsberger, Joyce
Saddaca, Virginia
Sanderson, Anne Bell
Schewel, Heidi & Doak McDuffie
Simon, Shirley
Sprinkel, Hazel
Stewart, Thad
Stratton/Langfur Family
Tiemann, Benny & Rosie
Valencia-Choplin, Henrietta
Wagstaff, Patricia B.
Williams, Cathy & Family
Zdinak, Zackery

CHAPTER NEWS AND EVENTS

FLAGSTAFF CHAPTER:

Regular meetings are held on the 4th Tuesday of every month at 7 pm on the NAU campus in Rm. 313 of the Biological Sciences Building. Meetings will resume again in March.

Contact Jean Searle, Chapter President, at (602) 282-4484 for more information.

PHOENIX CHAPTER:

Regular meetings are held the 2nd Monday of the month at 7:30 pm September through May in Webster Auditorium at the Desert Botanical Garden.

January Events: Meeting-- "The Hohokam," presented by Todd Bostwick, City of Phoenix Archaeologist at Pueblo Grande Museum. Field Trip-- Jan. 22, to the Heard Museum.

February Events: Meeting-- Chet Andrews speaks about the "McDowell Sonoran Land Trust." Field Trip-- Feb. 19, to the McDowell Mountains.

March Events: Meeting-- "Arizona Riparian Issues," with Julie Stromberg of the ASU Center for Environmental Studies.

Field Trip: Mar. 19-20, a camping weekend at Burro Creek and Kaiser Hot Springs.

For more information contact Kent Newland at 8376 Cave Creek Stage, Cave Creek, AZ 85331, (602) 585-3630 (H) or Marcia Francis at (602) 992-5435 (H/Ans. Machine).

SOUTH CENTRAL CHAPTER:

Meetings are held on the 1st Saturday of each month at 9:30 am in the Community Room of the Student Activities Center on the Signal Peak campus of Central Arizona College.

Events: A hike led by Bill Kinnison is scheduled for Saturday, Jan. 8th to Table Top Mt. Regular meetings will resume in February.

News: New officers were elected at the December meeting:

Jean England-- President;
Dan Bolkcom-- Vice President;
Hazel Sprinkel-- Corresponding Secretary;
Pat Donnelly-- Recording Secretary;
Frances Ide-- Treasurer.

For more information contact Chapter President Jean England, 9985 W. Woodruff Rd., Casa Grande, AZ 85222, (602) 836-8792.

SOUTHEAST SUB-CHAPTER:

These meetings are held at 6:30 pm at the Sierra Vista campus of Cochise College, Building P4 (Administrative Bldg.).

Events: Meeting-- On Wed., Jan 26th, Dr. Karen R. Adams, botanist and archaeologist with the Crow Canyon Archaeological Center, Cortez, Colorado, will speak on "The Ethnobotany of Some Riparian Plants in the Huachucas."

TUCSON CHAPTER:

Regular meetings are held on the 2nd Wednesday of each month at 7:30 pm at the Tucson Botanical Gardens, 2150 N. Alvernon Way, Tucson.

Events: Meeting-- "Climatic variation and its effect on the vegetation of the Southwest," by Julio Betancourt of the USGS Tumamoc Hill Laboratory.

Contact Chapter President Cindy Salo at (602) 623-5120 for more information on Tucson chapter.

YUMA CHAPTER:

Regular meetings are held on the 3rd Monday of each month at 7:30 pm at the U of A Agricultural Station on 8th St. in Yuma Valley.

For more information, contact Chapter President Pat Callahan at (602) 627-2773.

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 Arizona Native Plant Law Manager
 1688 W. Adams, Phoenix 85007 542-3292

Irving Vincent
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 P.O. Box 651, Florence 85232

CHAPTER PRESIDENTS

Flagstaff: Jean Searle
 150 Color Cove Road, Sedona 86336 282-4484

Phoenix: Kent Newland
 27218 N. 46th St., Cave Creek 85331 585-3630

Prescott: Inactive
South Central: Jean England
 9985 W. Woodruff Rd., Casa Grande 95222 836-8792

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 Rt. 1, Box 28M, Somerton 85350 627-2773

OTHER BOARD MEMBERS

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Scott Wilkins
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Catherine Wertz
 P.O. Box 27, Bisbee 86603 432-4345

Newsletter Typesetting & Design

Dean Brennan
 906 W. Cheyenne Dr., Chandler 85224 917-3056

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The Arizona Native Plant Society
P.O. Box 41206
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