

# The Plant Press

## THE ARIZONA NATIVE PLANT SOCIETY

VOLUME 22 NUMBER 3

AUTUMN 1998

### SIGNAL PEAK GARDENS GONE

*Shirley Weik*

On Saturday, May 9th, 1998, ground was broken on the Central Arizona College campus between Coolidge and Casa Grande starting the first major expansion since the campus was established at this site 28 years ago.

Plans call for two new buildings to be located in what have been until now demonstration gardens featuring desert plants from the U. S. and Mexico and other arid regions.

The gardens were planned and developed by former ANPS president, Bill Kinnison, who had originally been hired to landscape the campus in the 1970s and is who now a teaching Professor of Biology at the College.

With his help, the new landscape firm, Native Resources International of Phoenix, identified trees and shrubs and cacti to be salvaged from the gardens and used elsewhere on the campus or to be replanted around the new buildings after they are finished. \$80,000 was budgeted by

the contractor, D. I. Withers Construction Company, for the cost of salvaging 130-140 individual plants. Most of the salvaged plants are Arizona natives, including many saguaros (some of which are being moved for the second time) ironwood and palo verde trees, and even at least one of the creosote bushes that dominate the area.

Other Arizona natives, such as Arizona rosewood, netleaf or canyon hackberry, organ pipe cactus and the feathery fairy duster are from very different parts of the state and were included in the garden in part to test their adaptability for use in home or commercial landscapes - to provide an alternative, as Bill often pointed out, for the over-used oleander.

This Arizona-natives section of the gardens was the first to be planted, and by now many species were considered to be well past their prime. Since younger, more vigorous specimens are generally available in nurseries throughout the state, those thought not worth bothering with were simply pushed over by the bulldozer and carted away with the trash. Practical perhaps but heart-wrenching to watch!

Two other sections of the gardens featured plants native to Mexico. These were planted a few years later than the Arizona natives, so the

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*Flora of  
Montezuma Castle  
N. Mon. I*

# 1998 MEMBER SURVEY: A SUMMARY

*Marcia Tiede and Barb Skye*

Last January, as you may recall, ANPS conducted a survey of its membership. A primary motivation for the survey was to learn more about our members - their opinions about how well ANPS works toward its mission areas, and how the professional and personal interests of members overlap with those of the Society. We received excellent input from over 170 members. Thanks to everyone who took the time to respond. Your input provides a foundation for strengthening the effectiveness of our organization. In a nutshell, here is what we learned from this initial survey:

1. We need more practice in designing survey questions. It became readily apparent that some of them were too ambiguous or misleading. This was especially true of the section dealing with our mission and how it fits with members' own concerns and interests. Look for a short follow-up survey in the next year to complement information we have already received.

2. Overall, members feel that the three main components of ANPS's mission - to broaden knowledge and appreciation of plants native to Arizona and their habitats; to work to protect native plants and their habitats; and to encourage landscaping with native plants and other plants appropriate to Arizona - are all of great importance. Several commented that in the area of landscaping we should focus more narrowly on native plants, rather than including non-natives that are tolerant of our growing conditions and may cross over the line to become invasive. Many believe we need to do more in the area of conservation; others feel that our efforts in the areas of education and landscaping (especially through our plant pamphlets) are our strength, and contribute to public awareness and support for preservation of habitat. Most said we should do more to support all three goals. We can't rest on our laurels, there is room for improvement in all areas - this was the basic sentiment of most responses.

3. We discovered that many members are not familiar with some of our activities or services, such as our website and the annual state meeting. Members want more educational programs and a

wider range of volunteer opportunities—from representing ANPS for an hour at an event, to doing botanical surveys, to salvaging plants from construction sites. Members in smaller or less active chapters have less opportunity to participate in field trips or attend educational events, or even hear about what's going on across the state. In some cases *The Plant Press* is the only source of information about happenings in ANPS. The leadership of ANPS should pursue ways of providing more support and guidance for smaller chapters.

4. The membership profile was an especially fruitful area of the survey. Members were extremely generous in their offers of volunteer support, especially in areas related to conservation and botanical expertise. Our challenge now is to take advantage of this information and make it accessible in productive ways.

Responses to the survey have been inputted into a database, and results have been distributed to the leaders of the various chapters to let each group know what its members have to say and to permit them to utilize their own network of volunteers in their region. But full utilization of these responses requires greater coordination at the chapter and state levels.

We are hampered in part by our ongoing lack of a membership coordinator to oversee this information. We are beginning to offer support to non-profit organizations with similar concerns, such as The Nature Conservancy and The Audubon Society, by communicating their need for volunteers to our members who have expressed willingness to help in those areas, thus connecting our members with more opportunities to act on their interests.

Overall we learned how fortunate we are to have such dedicated and knowledgeable members. Volunteer support and communication are central to improving our ability to support our mission areas. Thanks again for contributing your opinions and offering your expertise. We hope to make constructive use of both.

<i>(Dalea searlsiae)</i> [ <i>Petalostemum</i> s.]		<i>Ribes aureum</i>	golden current
<i>(Desmanthus cooleyi)</i>		<b>Hydrophyllaceae</b>	
<i>Lotus humistratus</i>	foothill deervetch	<i>Eucryphia chrysanthemifolia</i>	
<i>(Lotus mearnsii)</i>		var. <i>bi pinnatifida</i>	spotted hideside
<i>(Lupinus brevicaulis)</i>		<i>Eucryphia micrantha</i>	dainty desert hideside
* <i>Medicago lupulina</i>	black medick	<i>Phacelia crenulata</i>	cleftleaf wild heliotrope
* <i>Medicago minima</i>	burr medick	<i>Phacelia cryptantha</i>	hiddenflower scorpionweed
* <i>Medicago polymorpha</i>	burclover	<i>Phacelia distans</i>	distant phacelia
* <i>Medicago sativa</i>	alfalfa	<i>Phacelia ivesiana</i>	Ives' phacelia
* <i>Melilotus albus</i>	yellow sweetclover	<i>Phacelia rotundifolia</i>	roundleaf scorpionweed
* <i>Melilotus indicus</i>	annual yellow sweetclover	<b>Juglandaceae</b>	
* <i>Melilotus officinalis</i>	yellow sweetclover	<i>Juglans major</i>	Arizona walnut
<i>Mimosa aculeaticarpa</i> [ <i>M. biuncifera</i> ]	mimosa	<b>Krameriaceae</b>	
<i>Phaseolus angustissimus</i>	slimleaf bean	<i>Krameria erecta</i> [?]	
<i>Prosopis velutina</i>	velvet mesquite	[ <i>K. parvifolia</i> ]	littleleaf ratany
<i>Rhynchosia senna</i> var. <i>texana</i>	Texas snoutbean	<b>Lamiaceae</b>	
<i>Senna baubinioides</i>		<i>Hedeoma drummondii</i>	Drummond's false pennyroyal
[ <i>Cassia baubinioides</i> ]	twinleaf senna	<i>Hedeoma nana</i>	false pennyroyal
* <i>Trifolium repens</i>	white clover	<i>Hedeoma oblongifolia</i>	false pennyroyal
<i>Vicia ludoviciana</i>	Louisiana vetch	* <i>Marrubium vulgare</i>	horehound
<b>Fagaceae</b>		* <i>Mentha spicata</i>	spearmint
<i>Quercus dunnii</i>	Palmer oak	<i>Salvia reflexa</i>	lanceleaf sage
<i>Quercus turbinella</i>		<b>Linaceae</b> [?]	
var. <i>turbinella</i>	shrub liveoak	( <i>Linum lewisii</i> )	
<b>Fumariaceae</b>		( <i>Linum puberulum</i> )	
<i>Corydalis aurea</i> ssp. <i>aurea</i>	scrambled eggs	<b>Loasaceae</b>	
<i>Corydalis aurea</i>		<i>Mentzelia albicaulis</i>	whitestem blazingstar
ssp. <i>occidentalis</i>	scrambled eggs	<i>Mentzelia multiflora</i>	dwarf mentzelia
<b>Geraniaceae</b> [?]			
* <i>Erodium cicutarium</i>	redstem stork's bill		
<i>Erodium texanum</i>	Texas stork's bill		
<b>Grossulariaceae</b>			

To be continued in the Winter 1998 issue

## TOHONO CHUL PARK INVITES SAGUARO ART ENTRIES

Tohono Chul Park is planning an exhibit to run from Feb. 3 - March 29 at the park. Everyone is invited to contribute art in any media that deals with the saguaro and its role in the Sonoran Desert Ecosystem. Drawings, photos, 3-dimensional works and paintings are all welcome. Images may be literal or philosophical in nature. Even if you don't submit, be sure to visit the exhibit!

Submissions accepted through Dec. 15, 1998. Slides, photos or proposals for exhibits should be submitted with a resume or artist's statement and stamped return envelope. Send to Peggy Hazard, Tohono Chul Park, 7366 N. Paseo del Norte, Tucson AZ 85704.

PAGES FROM GINNY'S NOTEBOOK  
 II: The Euphorbiaceae - Spurge Family  
 Virginia Saylor

EUPHORBIACEAE - SPURGE FAM.									
Pg No	Genus Common Name	Form	Inflorescence & Cops.			Leaf cm	G WF	K CF	TX RK
			♀	♂	FR				
○	<i>Acalypha</i> Three-seeded Mercury	A/Phrb Shrb D/M	2x	3x	2mm	A	961	507	943
						1-6 5-8	121	164	—
	<i>Adelia</i>	Shrb D			12mm	A-F 2-3	—	—	942
	<i>Agaloma</i>		Listed as <i>Euphorbia</i> in all other books				—	—	RF 200
	<i>Andrache</i> Maidenbush	Shrb D/M	2mm	2mm		A 1-3	963	—	925
	<i>Argythamnia</i> Wild Mercury	Phrb D/M	Listed as <i>Ditaxis</i> in all other books			A			939 RN 219
○	<i>Bernardia</i>	Shrb D/M	T	S-R	8-10mm	A	—	506	942
						5-3	—	163	—
	<i>Caperonia</i> *	A/Phrb M	S		4mm	A 5-15	—	—	942
	<i>Chamaesyce</i> <sup>+</sup> Prostrate Spurge	A/Phrb M	CY-50			O 1-1	—	—	—
	<i>Cnidocolus</i> Bull. Mala- Nettle	Phrb M	wh		10-12mm	A 3-15 dia	959 116	509	954
	<i>Croton</i> Croton	A/Phrb Shrb D/M	A-T-R		4-7mm	A 1.5- 8	959 116	503 161	929 308
	<i>Crotonopsis</i> Rush-Foil	L/Phrb M	A-T-CR			O 1-4	960	—	937
○	<i>Ditaxis</i>	A/Phrb SbSh M	A-R			A	—	505	939
						1-6	—	162	308
	<i>Eremocarpus</i> Dove Weed	A/Phrb M	A	CY		A 1-6	—	*	—
	<i>Euphorbia</i> <sup>+</sup> Spurge	A/Phrb M				A 1-3	963 116	515 167	956 309

Family of 300 genera = 7500 spp world-wide

Key to Abbreviations a  
 FORM: Ahrb = Annual  
 herb; SuSh - Sub-shrub;  
 = Deciduous M - Mono  
 INFLORESCENCE: A  
 CY = Cyme; IS = Interr  
 = Minute; P = Panicle; F  
 LEAF: A = Alternate;  
 FLOWER: Generally 3-

GENUS EUPHORBIA

K: Kearney & Peebles  
 was split into Poinsett  
 Euphorbia. However  
 Plants, Vol. 12 #2, all  
 JM: Jepson Manual - Sp  
 Euphorbia  
 NC: Britton & Brown, I  
 U.S. and Canada, is a  
 Chamaesyce, Poinsett  
 Tithymalopsis, y  
 but not Euphorbia.

Book Notes:

The last three columns  
 species is described in  
 G: M.L. Fernal, ed. 198  
 Botany 8th ed. Dio  
 K: Thomas Kearny and  
 Arizona Flora. Univ  
 1032 pp.  
 TX: Donovan Correll a  
 1970. Manual of Vas  
 Texas Research Fou  
 WF: Harold Rickett et  
 the United States, V  
 York Botanic Gard  
 CG: Philip Munz. 1959  
 Rancho Santa Ana  
 RK: John Coulter and A  
 Manual of Botany  
 Mountains. Amer  
 646 pp.

Notes  
 Phrb = Perennial  
 WShrb = Woody shrub; D  
 S = Secondary;  
 CR = Cluster;  
 S = Spike; MI  
 T = Terminal.  
 O = Opposite  
 Capsule

ough catalog changes it  
 Chamaesyce and  
 plant list in Desert  
 now Euphorbia.  
 Chamaesyce and

ated Flora of Northern  
 splitter, listing  
 Zygophyllum,  
 Zygophyllum

r to pages in which the  
 standard books.

Gray's Manual of  
 1632 pp.  
 Robert Peebles. 1951.  
 University of California Press.

Marshall Johnson.  
 Plants of Texas.  
 1881 pp.  
 1970. Wild flowers of  
 the Southwest New

California Flora.  
 Garden. 1681 p.  
 Nelson. 1902. New  
 the Central Rocky  
 Book Company. 1902.

EUPHORBIAEAE - SPURGE FAM.									
Pg No	Genus Common Name	Form	Inflorescence + Caps.			Leaf cm	G WF	K CF	TX RK
			♀	♂	FR				
○	<i>Hura</i> Sand Box Tree	Tree M				11-20 	—	— MX 154	—
	<i>Jatropha</i>	PHrb SbSh M				A-F 5-20 	115	508	953
	<i>Manihot</i>	PHrb M					116	509	955
	<i>Mercurialis</i> * <i>Mercury</i>	A/PHrb M	IS	2lobes 		O 2-5 	960	— 165	—
	<i>Pedilanthus</i> Red Slipper Bird Flower	Shrb M	brt red 			Ephem.	—	— OC 127	—
○	<i>Phyllanthus</i> Leaf-flower	A/PHrb SbSh M	A-MI 			A 6-2 	963 122	K*	925
	<i>Poinsettia</i>	A/PHrb M	Sub-genus of Euphorbia 			A 	118	515 (167)	968 RF 202
	<i>Reverchonnia</i> <i>Reverchon</i>	AHrb M	CY 		7-10 mm 	A 2-4 	122	502	929 UT 303
	<i>Ricinus</i> * <i>Castor-bean</i>	AHrb M	P-T 		15-25 cm. 	A 10-50 	962	508 164	953
	<i>Japim</i> Mx Jumping Bran	Shrb SmTr M			6-8 mm 	A 2-6 	—	511	951
	<i>Sebastiania</i> <i>Sebastian Bush</i>	Shrb M	5 mm 			A 3-7 	—	— OC 132	951
○	<i>Stillingia</i>	A/PHrb M	2 mm 	45 mm 		A 2-4 1-4 	963 121	510 165	951
	<i>Tetradoccus</i>	Shrb D			3-5 mm 	A-O-W 	—	503 160	—
	<i>Tragia</i> <i>Noseburn</i>	PHrb M			3-4 mm. 	A 1-2 	962	507 164	947 308

Continued from page 1

trees and shrubs are somewhat younger. Some species were not then, but are now, readily available in U.S. nurseries. Among those that are not, and which were salvaged, are the sharp needled evergreen *Jacquinia pungens* which never seems to stop blooming, some palms - the delicate leaved *Braves armata* and wide-spreading *Sabal uresana*, and the tall and fine-foliated Mexican ebony *Pithecellobium mexicanus*. This one may be a good lawn tree since its open branches allow sunlight to filter through to plants beneath them. Birds like to perch in its branches.

All these trees have demonstrated a remarkable ability to survive, and to grow, though admittedly slowly, in this setting without supplemental watering. They survived through several seasons of record-setting temperatures (up to 122o F) and prolonged drought. It wasn't intended that they be put to such an endurance test. The maintenance department perhaps knowing that new buildings would someday replace the gardens, did not repair the irrigation system once it started to wear out.

Regrettably, some survivors were overlooked in the salvage plan because they were mistakenly supposed to be safe from destruction since they were not directly where buildings would go. One of these was the natural hybrid *Cercidium sonorae* which had been painstakingly rescued from a smothering mistletoe invasion (it didn't need that on top of everything else!) and which was showing such good recovery. Luckily, most (if not all) the Mexican species are being field-tested elsewhere in the state, at the Desert Botanical Garden, Tucson Botanical Garden, the Arizona Sonora Desert Museum, The University of Arizona and the Boyce-Thompson Arboretum.

But there are losses, such as two rare eucalyptus trees developed at the Plant Materials Center in Tucson. They were too large to be moved conveniently. An even greater loss, especially to us in the neighboring communities who would occasi-

onally visit the gardens just to walk through them, is that of the natural habitat which had developed over the years. Those plants provided a home to many animals and birds and insects, invading wildflowers and grasses. This one small section of the campus, criss-crossed with footpaths created by faculty, staff, and students going from one building to another, was surprisingly full of life. Since most desert creatures are out and about only at night, probably only those with night classes were even aware of it. My own visits to the campus were usually in early morning, on weekends when few other humans were around. The still fresh tracks, piles of dung, freshly dug holes of ground squirrels, once even an unidentified pelt, gave evidence of earlier activity.

Now everything between the Administration and Business

buildings and from the Science Building to the traffic circle has been flattened. An underground network of water-pipes and electrical and telephone lines fills the area. A large culvert lies buried in what was once a deep arroyo south of the Science building, and a wide wash has been precision leveled for the foundations of the new Student Center and Computer Building.

The philosophy that 30 years ago dictated that this particular location at the base of a mountain be selected because of its natural beauty for our new Community College has given way to a now-felt need to get ready for the demands of a new century. The next test of the salvaged plants will be to see how well they can adjust to an (assumed) abundant supply of water, and a new setting of artificial mounds and river-washed rock-filled depressions and raked-gravel surfaces - the generally accepted elements of desert landscaping today. Whether the plants will be labeled or not remains to be seen.

Bill Kinnison and Warren Jones who collaborated on the gardens project may now feel like parents seeing their children off to take their final exams. How will they do? If you became familiar with the campus you may be interested in coming back to see it in the autumn of 1999.

Goodbye Velma Adams. ANPS lost an ardent enthusiast this summer with the death of Velma Adams, stalwart of the Central Arizona chapter. She played an important role in developing the Gardens.

# OUTSTANDING ARIZONA BOTANISTS

## II. Edward Palmer 1831-1911



*Distichlis palmeri*, *Penstemon palmeri*, *Yucca palmeri*), and the genus *Palmerella* may be familiar to plant lovers, but the botanist himself is not well known.

Palmer was one the most avid collectors of American plants in the late nineteenth century. Many of his collections were made in Arizona and Mexico at a time when travel was difficult and dangerous. Unfortunately, many of his collections were labeled and identified by others far from where they were collected and it was not until his biographer, Rogers McVaugh, located Palmer's original notes and extensive correspondence that they were properly annotated and collection locations identified.

Little is known about Palmer's early life in England, except that he described his father as a "gardener." He tried various occupations and trained as a doctor, but what he really wanted to do was to go to distant places and find new things. He wrote to various people asking to join expeditions, but never organized one himself.

His first collecting trip was to Paraguay. In 1852 he sailed south as a hospital steward on the *Water Witch*, under the command of Capt. Paige who wrote a lively account of the expedition, but gave Palmer no credit for collecting for the Smithsonian Institution, although later evidence proved most of the specimens were indeed collected by Palmer. He left two years later with malaria which bothered him for years. He studied at the Cleveland Homeopathic College and practiced off and on as a surgeon. While he worked as a doctor he collected "anything except minerals and fossils" in Kansas and Nebraska. When the Civil War began he was in the Gold Rush Country of Colorado and collected almost anything but gold. The fate of those collections is unclear although the notes and some of the specimens were found in the National Herbarium. He joined the Union side as a surgeon. This allowed him to collect specimens, as he was assigned to the frontier, not the front lines.

After the Civil War, he was assigned to Fort Whipple, near Prescott, Arizona where he joined 23-year old military surgeon, Eliot Coues, an avid collector of zoological specimens. They collected together in the Prescott area, in the Graham Mountains and other locations and sent more than 600 plant specimens to the National Herbarium. Some of his collections were lost when he languished for many months with fever and the someone in the military threw the collections away. His 1867 collections from Mt. Graham are in the Missouri Botanical Garden and the Torrey Herbarium at the New York Botanical Garden.

After trips to Arkansas, and other points in the Midwest, Palmer returned to the Southwest in 1869-70. His travels took him along the Virgin River, down the Colorado River to the Delta and south to the Yaqui River. The specimens from these travels ended up at the National Herbarium, inadequately labeled.

He collected plant and ethnological materials for the Bureau of Ethnology in the 1880s. In spite of age and frail health, he took more trips to the Southwest and Mexico. He returned from his last Mexican collecting trip in 1910 at the age of 79 and died a few months later. Among other things mentioned in his will were "nine boxes and two trunks, containing miscellaneous papers and pictures which are in part the result and fruits of my said observations and discoveries." He left \$2,000 to publish his notes and papers.

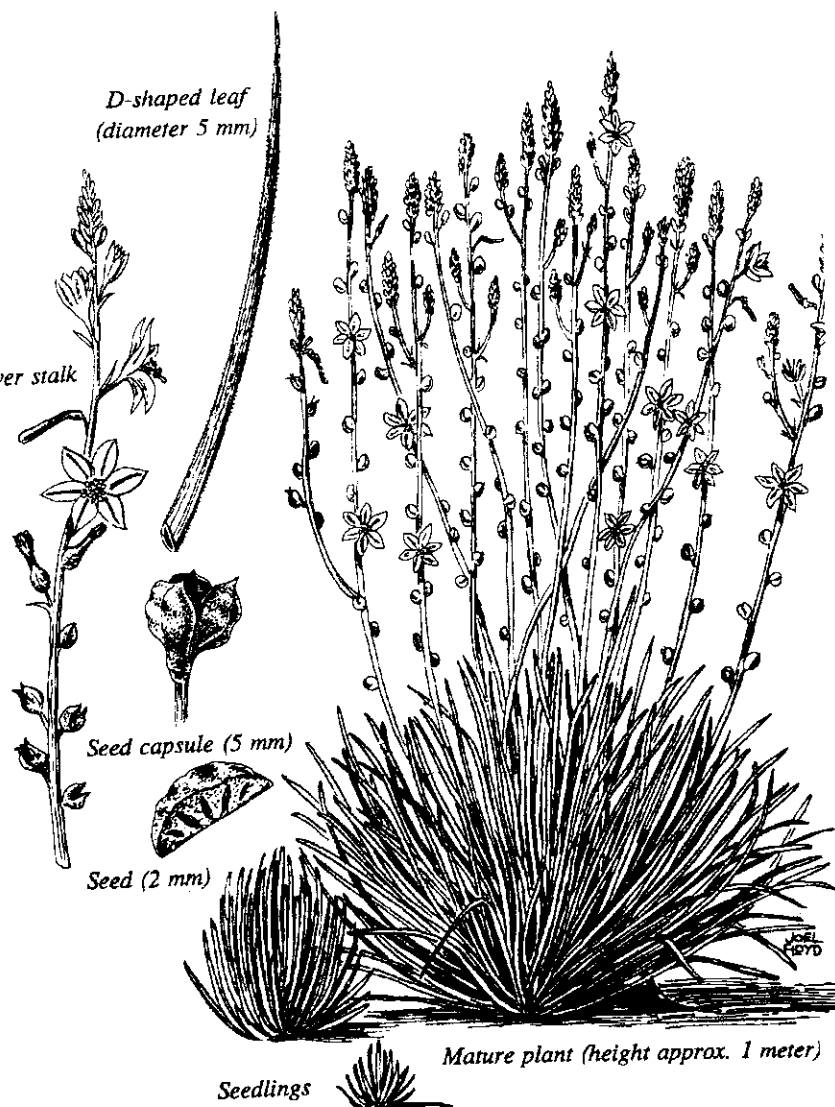
Palmer wrote too many articles to list here on archaeology, ethnology, mammals, arthropods, shells, and botany. For a complete list of his works and works based on his collections, see *Edward Palmer: Plant Explorer*. R. McVaugh. U. of Oklahoma Press. 1956. 430 pp

## Exotic Weed Watch

Joel Floyd

One of the Federal Noxious Weeds known to be established in limited areas of the Sonoran Desert is onionweed, *Asphodelus fistulosus*. Originally from the Mediterranean area, it is frequently intercepted in plant shipments from Mexico and in spice shipments from India. It has become highly invasive in Australia. In 1984, onionweed was imported from Southern Mexico by a plant and seed collector through a port of entry on the Texas border. The seed was not correctly identified and because it is an attractive ornamental plant, it was introduced into the nursery trade in Arizona.

Once it was designated in 1989 as a Federal Noxious Weed, control efforts were initiated and have been ongoing in Texas and New Mexico where onionweed appears to prefer stream habitats. In Arizona, the plant was removed from the nursery trade by the Arizona Department of Agriculture, but infestations remain in certain areas of Southern Arizona, including on home landscapes where it was planted before the problem was recognized.



*Asphodelus fistulosus*.  
Drawing by Joel Floyd.

SYMPOSIUM COMMEMORATING  
THE REPLICATION OF GENTRY'S RIO MAYO PLANTS  
OCTOBER 21, 1998 8:00 A.M. - 5:00 P.M.  
ARIZONA SONORA DESERT MUSEUM

Speakers: David Yetman, Paul Martin, Robert Scarborough,  
Tom Van Devender, Mark Fishbein, Cynthia Lindquist, George Ferguson,  
Richard Felger, and Robert Schmidt

For information contact the Southwest Center 520 621-2484  
1052 N. Highland, Tucson AZ 85721



## BOOK REVIEWS

### Rio Mayo Plants

*Rio Mayo Plants* by Howard Scott Gentry ranks with Shreve and Wiggins and Kearney and Peebles when it comes to plant books coveted by southwesterners. For decades photocopies have circulated among those interested in the tropical deciduous forest. Anyone fortunate enough to own an original copy views it as an heirloom or museum piece.

Now the book is again available. *Gentry's Rio Mayo Plants: the Tropical Deciduous Forest and Environs of Northwest Mexico*, revised and expanded by Paul Martin, David Yetman, Mark Fishbein, Phil Jenkins, Tom Van Devender and Becky Wilson has been published by the U. of A. Press.

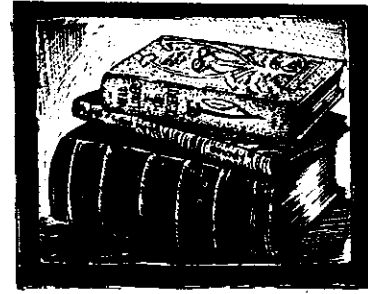
Paul Martin, Professor Emeritus of Geosciences at the U. of A, saw the need for republication more than two decades ago. He used the book in his ecological studies of the Sierra Madre Oriental. He was so intrigued that he decided to follow Gentry's routes and expand Gentry's collections. For nearly twenty years Paul led what he called "week-long Sunday drives" into the Rio Mayo region, from the arid thornscrub of the coastal plains to the mixed-conifer forests of the Chihuahua sierras. Others caught the "Rio Mayo fever" and joined the project. The number of species cataloged exceeds 2,800, more than double what Gentry found.

*Gentry's Rio Mayo Plants* includes not only the plant list, but ethnobotanical descriptions, habitat, distribution and collection localities of the species noted. It also has expanded descriptions of the geography of the Rio Maya and photographs of key species and plant communities of the region. The map of gives an excellent idea of the topography and locates the most prominent locations. Most of Gentry's original text is included.

This book is invaluable for anyone interested in the natural history of the area - cost \$75. For more information call 520 621-2484.

David Yetman

Plant Press, Autumn 1998



### Dune Country

Good news! The University of Arizona Press has reissued Jan Bowers' *Dune Country: A Naturalist's Look at the Plant Life of Southwestern Sand Dunes*. This book contains a wealth of information about life in the various dunes of Arizona, Nevada, Utah, and California, and is written in a lively and interesting style. \$15.95 in paperback.

*Beyond the Ponderosa: Successful Landscape Trees for Higher Elevations in the Southwest*. This information-packed book on landscape trees for higher elevations should be an excellent resource for people living in places such as Flagstaff and could also be of interest to desert dwellers.

Each tree is described according to form, trunk, foliage, flowers and fruit, cultivars, site suitability and cultural considerations. Symbols highlight features such as trees that have parts known to be toxic or dangerous and note water and shade requirements, maintenance level, pruning needs, and longevity. Both scientific and common names are given. Photographs of the entire tree as well as features such as leaves and seeds make this book especially useful for aspiring tree-planters.

The book was published by the Flagstaff Community Tree Board, with financial support from many sources, including ANPS. It is available in bookstores or by contacting Flagstaff Clean and Green, 211 West Aspen, Flagstaff 86004. \$10.



### Feds Release Documents on *Dalea tentaculoides*

ANPS is seeking to protect *Dalea tentaculoides*, a rare legume from only a few places in Sonora and Arizona, under the Endangered Species Act. (ESA) The plant is known from only a few locations in the world, principally in Sycamore Canyon near Nogales.

Your Conservation Chair, under the Freedom of Information Act (FOIA), has twice requested copies of documents relating to the decision not to protect the plant. I wish to ascertain why legal protection was denied this rare plant. After two months of delay, U. S. Fish and Wildlife Service responded that they were compiling the documents, but other priorities prevented a lawful (10 day) response. In July, I contacted Congressman's Ed Pastor's Office to request assistance in getting the agency to comply with the FOIA. In September, USFWS finally responded with some of the requested documents.

Based on my reading of the files and the list of withheld documents, it appears that last year, after many years of being on the "candidate"

## CONSERVATION UPDATE

*Julia Fonseca, Conservation Chair*

list for ESA protection, USFWS was planning to list this legume. In early December 1997, it appears that USFWS had prepared a draft Federal Register notice proposing to protect the plant, as threatened under the ESA. On December 19, 1997, the agency appears to have reconsidered the draft proposal. By January a document was written giving official reasons for not protecting the plant under the ESA, and by April the agency published a notice stating that the "available information indicates that the degree of the threats to *D. tentaculoides* does not warrant issuance of a proposed rule nor continuance of candidate status for this species."

Reasons given for the sudden reversal include discovery of new populations by Tom Van Devender and Jefford Francisco, bringing known locations back up to three in the world. Perhaps more important, USFWS said that the Forest Service was taking actions in the watershed for Sonoran chub that would reduce the threats to *Dalea tentaculoides*. However, there is evidence that USFWS knew these facts in November 1997, when it was planning to protect the plant.

Several documents which were described as released were not included in the mailing from USFWS. Also, there are documents from the U. S. Forest Service that need to be considered in conjunction with the USFWS record. So stay tuned for further information.

PLANTS OF THE LOWER SONORAN DESERT  
ARIZONA NATIVE PLANT SOCIETY ANNUAL MEETING  
AJO, ARIZONA - NOV. 7 - 8, 1998  
MANY INTERESTING TALKS AND EXCITING FIELD TRIPS ARE PLANNED!

Flyer with full details will be in the mail soon. If you don't receive one in the mail, check the ANPS Website <http://www.azstarnet.com/~anps/> or write ANPS, Box 41206, Tucson AZ 85717

## ANPS 1998 PUBLICATION GRANTS PROGRAM: CALL FOR GRANT PROPOSALS

The Arizona Native Plant Society has available through its Publication Fund \$3,000 to assist with funding of publications or communications-related projects during the 1998 grant cycle. The grant program is open to individuals, groups or organizations. Individual membership in the Society is not required, nor does it preclude application. Proposals from ANPS chapters or committees are not eligible for this program and should be submitted to the Publication Committee for consideration separately. Awards will be made on a competitive basis by the Publications Committee of the ANPS and will be announced by Dec. 15, 1998. The \$3,000 available may be awarded as one or more grants.

Proposals should consist of a brief presentation (one or two pages) outlining:

- ▲ the project's subject, audience and relevance to the purpose of the ANPS: "To increase awareness and appreciation of Arizona's native plants; to work towards protection and restoration of native plants and their habitats and to promote the use of low water use landscaping, with emphasis on the use of native plants."

- ▲ the applicant's background and a statement of qualifications or resume.

Examples of projects funded in previous years were grants to help with the publication of the journal *Desert Plants*, and the book *Beyond the Ponderosa* (See review on page 13).

Proposals should be submitted by November 15, 1998 to: Arizona Native Plant Society,  
1998 Publication Grants Program,  
Box 41206, Sun Station, Tucson Arizona 85717

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### ARTISTS WANTED

The Flagstaff ANPS chapter is seeking illustrations for its new poster: *Plants of the Colorado Plateau*. For information, contact David Hammond, Adjunct Curator of Botany at the Museum of Northern Arizona. 520 556-9427

## OUTSTANDING ACHIEVEMENT AWARDS CALL FOR NOMINATIONS

Once again the Arizona Native Plant Society is asking for nominations of people, groups, or businesses to receive the annual "Outstanding Achievement Award." The purpose is to recognize Arizonans who have contributed to increasing appreciation of or knowledge about native plants, to preserving native plants, or to increasing the use of native plants in landscaping. Nominees need not be members of ANPS.

Please provide complete information about the nominee - name, address, phone number, etc. Then describe in no more than two pages the contribution(s) which you believe render the nominee deserving of the award. You may include newspaper articles, copies or reviews of publications and other relevant material.

Previous awardees include Paul Martin (University of Arizona) for increasing knowledge, Kent Newland (Phoenix Water Conservation Office and ANPS) for promotion of water-conserving and native plants, and Peter Gierlach (Desert Survivors) for increasing availability of native plants for landscaping.

Send your nomination by November 1, 1998 to  
Arizona Native Plant Society,  
1998 Achievement Award,  
Box 41206, Sun Station, Tucson Arizona 85717

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### TUCSON BOTANICAL GARDEN SPRING FLOWER PHOTO CONTEST

If you took great photos of the bountiful wild-flowers last spring, you can enter them in a photo contest. Entries welcomed from all parts of the state or even from visitors from elsewhere. For information, contact Meg Quinn at TBG, 2150 N. Alvernon, Tucson 85712. 520 326-9686

## NEW MEMBERS WELCOME

People interested in native plants are encouraged to become members. People may join chapters in Flagstaff, Phoenix, Tucson, and Yuma or may be members only of the statewide organization. For more information, write to ANPS at the address below, visit the Website <http://www.azstarnet.com/~anps/> or contact one of the people below.

State co-presidents: Sue Rutman 520 320-1032 Mima Falk 520 387-6281  
Flagstaff President: Beverly Loomis 4716 E. Hightimber Lane, Flagstaff 86001  
Phoenix President: Wendy Hodgson 602 276-0760  
Tucson President: Jared Shortman 520 882-7060  
Yuma President: Pat Callahan 520 627-2773

### Membership Form:

Name

Address

City

State

Zip

Phone Number

Chapter preferred:  State  Flagstaff  Phoenix  Tucson  Yuma

Enclosed:  \$15 Individual or Family  \$25 Organization  
 \$ 50 Commercial/Sponsor  \$!00 Patron

Mail to: Arizona Native Plant Society  
P.O. Box 41206, Sun Station  
Tucson AZ 85717

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