

Native Plant Society of New Mexico

NEWSLETTER

January, February, March 2004 Volume XXIX Number 1

IN SEARCH OF THE PERFECT NAME

by Kelly W. Allred

Finding a new plant is tough enough, but then what do you name it?

One autumn a few years ago I, along with my colleague, Jesus Valdes-Reyna of the Universidad Autonoma Agraria in Saltillo, Mexico, began a trip into the Sierra Madre Occidentale of México. We left Colonia Juarez, headed southwest, and followed one dirt road after another across the Sierra La Brema. At each crossroads we inquired from local passers-by, "Is this the way to Cuesta Blanca?" "Allá, allá," came the invariable reply, always accompanied by a vague wave of the hand in the direction of the ever rising mountains.

Our search for Cuesta Blanca had arisen earlier that year, when we came across a specimen of *Aristida* collected by John and Charlotte Reeder at this unknown and unlikely little village. The identity of the threeawn was unknown to us; blades, panicle, spikelets, and awns all in sharp contrast to the numerous species with which we were familiar.

The label on the specimen said simply, "pine-oak region, Sierra Madre occidental, w of Casas Grandes, 3 mi w of Cuesta Blanca, 2073 m." And so, here we were, climbing out of the desert plains and into the woodlands of the Sierra La Brema, checking the altimeter, the vegetation, and whoever was along the side of the road, for clues or directions to Cuesta Blanca, stopping at almost any whitish ridge or outcrop, scanning the clumps of grass under every pine.

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ALAMOGORDO TO HOST ANNUAL MEETING 2004

The next annual meeting of the NPSNM will be hosted by the Otero Chapter in Alamogordo from Friday, August 6th through Sunday, August 8th, 2004. From Conifers to Cacti: The Diversity of Flora in Otero County is the theme for the meeting. As the title suggests, the lectures, demonstrations, field trips, and workshops will explain the reasons for such diversity and adaptations.

Statewide conservation and water issues will be the two panel discussion topics. Youth workshops will be held on Friday and Saturday afternoons. As a special treat, the Friday night reception will include hors d'oeuvres prepared by the "Cooking Wild Group" using native plants.

Look for the program and registration form in the next issue of the Newsletter.

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OFFICAL NOTICE OF PROPOSED AMENDMENT to the NPSNM BYLAWS

A proposed amendment to the By-Laws of the Native Plant Society of New Mexico will be considered for adoption by majority vote of the Board of Directors at the meeting scheduled for January 31— February 1, 2004 to be held at Sevilleta, N.M.

It is proposed to amend Section IV, part 3 regarding the designation of proxy by an Executive Officer or Board Member at Large who will be absent from a Board Meeting, Currently a Board Member at Large who cannot attend a meeting of the NPSNM Board of Directors may only designate another Board Member as his or her proxy for voting on any matter at the meeting. As each chapter has but one representative on the Board, the current provision can effectively deny a chapter voting representation at the meeting. Therefore, it is proposed to amend the By-laws to permit a Board Member at Large who will be absent to designate another member of the same chapter to be their proxy for the conduct of all business at the meeting. The five Executive Officers will remain authorized to delegate only another Board Member as their proxy in the event of absence from a Board Meeting. Members are encouraged to attend the meeting and/or advise their chapter representative of their opinion on this matter.

CAUGHT WITH THE GOODS

An observant (anonymous) rancher recently called Law Officer Jeff Adams at the Bureau of Land Management, Las Cruces Office, to report a load of ocotilos being removed from the east side of the Florida Mountains. Jeff confronted Robert Towner in Deming; Towner had a trailer loaded with some 200 ocotillos and 20 fish-hook barrel cacti. Unfortunately, Officer Adams could not prove these plants were taken from BLM land, so could not confiscate the load. He cited Towner anyway for violation of 43 Code of Federal Regulations CFR 8365.1-5(a)(2), unlawful removal of plants. Towner did not admit guilt, but paid the \$250 fine - a small price for a load of wild-harvested native plants worth a minimum of \$5,500 in the wholesale market.

We don't know how many illegal native plants are rustled in the Chihuahuan Desert and sold in Arizona or to Albuquerque landscapers because the New Mexico Department of Agriculture and NMSU Board of Regents do not use the law that allows them to monitor the take and transport of wild-harvested plants.

NPSNM members wish to thanks the observant rancher and Officer Adams for their diligence in protecting our shared heritage of native desert plants. But we wish our laws could be modified so such diligence could be more effective.

El Paso Garden Party

On Saturday morning, Nov. 8th, The El Paso Chapter held a "Garden Party" for winter cleanup of the Chihuahuan Desert Gardens at the Centennial Museum on the UTEP Campus. According to Wynn Anderson, NPSNM V.P. and curator of the CDG, the "Garden Parties" are periodic gatherings of volunteers who help with maintenance of the gardens and learn a few things in the process. This last "party" involved fall clean-up of planting beds, seed collecting for the season and completing the fall planting of the new Cactus Gardens.

A WEALTH OF FLORA

The latest edition of *The New Mexico Botanist* has a detailed summary by Kelly Allred of the number of vascular plants in New Mexico. Our state boasts: 1,004 genera; 3,175 native species; 440 exotic species; 3,614 total species; 458 additional infraspecific taxa (nearly all native varieties, subspecies)...4,072 total taxa!

In Memorium

Another of the Gila Chapter's Heroes for the Environment has fallen. Frank Knaus died November 3rd at his home in Silver City. He and his wife, Joyce, were founding members of this chapter in 1988. They served in various capacities including officers, field trip leaders and volunteers for several native plant gardens, doing the planting and maintenance. They were on the planning committee for the 1988, 1995 and 2001 Annual Meetings. Joyce and Frank were awarded the 2002 "Heroes for the Environment" plaque from the chapter. Frank's contributions and optimistic outlook will be remembered by all past and present members.

Earlier in the summer the Gila Chapter lost another founding member and award winner, **Anita Morton**. Anita will be remembered for her driving interest in making Silver City a state example of recycling, and by sharing native plants from her yard with anyone who would give them a good home.

"You cannot have a sparse planet any more than you can have half an animal."

Environmentalist
James Lovelock

This NEWSLETTER is published quarterly by the Native Plant Society of New Mexico, a nonprofit organization, and is free to members. The NPSNM is composed of professional and amateur botanists and others with an interest in the flora of New Mexico. Original articles from the Newsletter may be reprinted if attributed to the author and to this Newsletter. Views expressed are the opinions of the individual authors and not necessarily those of NPSNM. Manuscripts and artwork are welcome and should be submitted to the editor:

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Deadline for next issue is Mar 1, 2004

Membership in the NPSNM is open to anyone supporting our goals of promoting a greater appreciation of native plants and their environment and the preservation of endangered species. We encourage the use of suitable native plants in landscaping to preserve our State's unique character and as a water conservation measure. Members benefit from chapter meetings, field trips, publications, plant and seed exchanges, and educational forums. A wide selection of books dealing with plants, landscaping, and other environmental issues are available at discount prices. The Society has also produced two New Mexico wildflower posters by artist Niki Threlkeld and a cacti poster designed by Lisa Mandelkern. These can be ordered from our Poster Chair or Book Sales representative.

Proofreaders: Jane Mygatt, Beryl Schwartz, Donna Stevens, Sally Wasowski, Jackie Tamas and Ann Ellen Tuomey.

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NPSNM Membership Application Name(s) City _____State ____Zip Telephone _____ E-Mail/Fax I (we) wish to affiliate with the checked chapter Albuquerque __ Carlsbad __ El Paso, TX __ Gila (Silver City) __ Las Cruces Otero __ Sacramento Mts (Ruidoso) San Juan (Farmington) Santa Fe Taos I am interested in forming a new chapter in **Annual Dues:** \$20 Individual or Family..... \$30 Friend of Society..... Supporting Member..... \$50 \$100 Sponsor..... \$250 Patron \$500 Benefactor..... Life Member..... \$1.000 Limited Income, Family, Students & \$12 Seniors (65+)..... Endowment contribution \$ Make your check payable to **NPSNM** and send to Membership Secretary

P.O.Box 2364, Las Cruces NM 88004

Society Workshop finds long lost grass!

by Chick Keller

Last summer, since no one else could do it, I got tabbed to teach an Introduction to Grass Identification Workshop for the Taos Chapter. After a scouting trip the week before, some ten of us met at the campus of UNM Taos and spent two special days looking down but not noticing any of the other flowering plants. We had eyes only for the grasses!

One of our most productive field trips was Italianos Canyon, a magical place that intersects the long canyon leading up to the Taos Ski Area at Twining and several miles below it. This riparian, mixed conifer habitat is chockful of native plants, and the grasses are varied and uncommon. We found *Melica*, *Calamagrostis*, *Stipa*, *Trisetum*, and interesting species from *Agrostis*, *Bromus*, *Festuca*, *Elymus*, and *Poa*.

But the star of the collection was not understood until I had a chance to look carefully at it-a strange nodding grass with small florets that sported a small awn originating on the back of the lemma. Deep in Kelly Allred's key I decided it was Cinna latifolia (wood reedgrass a.k.a. drooping woodreed). When I showed it to Roger Peterson, who is used to correcting my many misidentifications, he was very dubious since he said Cinna had not been seen in the state for over seventy years (although it's not too uncommon in Colorado).

About this time Karen Epperson, one of the organizers of the Taos workshop, sent me another specimen collected in Santa Barbara Canyon. So we sent one to Kelly who said it was indeed *Cinna*. He further told me that there are only two known reports/specimens of *Cinna latifolia* in the state: San Miguel County: head of Holy Ghost Creek, 9000, 27 Aug 1923, Renner, F.G.79 (FORSER), and Bernalillo County: Sandia Mts, [fide W&S], Wooton, E.O. s.n.

The first specimen is in the Forest Service herbarium in Albuquerque, but no specimen substantiates the second report. It would have been collected sometime prior to 1915, perhaps August 4th, 1910, as there are four other grasses from the Sandia Mts. collected by Wooton on that date.

And so the Taos/Santa Fe Chapters have made a contribution to grasses in New Mexico, something that our Society has become accustomed to as we keep our eyes open for the new and unusual, or we just plain get lucky.

Along those lines, during grass workshop, on the Bull of the Woods Trail north of the Taos Ski area, I collected a rather strange delphinium which turned out to be *D. sapellionis*. I believe that's new for northern New Mexico.



Illustration from Lauren Brown's book, Grasses: An Identification Guide.

"Training is everything.
The peach was once a bitter almond; cauliflower is nothing but cabbage with a college education."

Mark Twain

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Letters to the Editor

In September of 2002 we heard from Bill Emory, the greatgreat-grandson of Lt. William Helmsly Emory for whom Emory Oak (Ouercus emoryi) was named. Lt. Emory served in the Army of the West in 1846 with the Topographic Corps where his surveys helped establish the boundary between the United States and Mexico. Emory Pass in the Black Range of southwestern New Mexico also honors him. Bill Emory lives in Charlotteville, VA and contacted us in order to secure some acorns of Emory Oak. He was curious if he could get them to germinate and grow in that climate. We told him that the drought has made acorns scarce but that Mountain States Nursery in Glendale, AZ has nursery stock grown from acorns collected in Texas Canyon, AZ and they could possibly provide Emory acorns. He contacted them and they Fed-Exed a 5-gallon Emory Oak to him. He was elated as this is surely a treasured tree to him. We are waiting to hear how it will fare in Virginia.

> Jack and Martha Carter Gila Chapter

Re: "Arbor Day Update" in the last issue, I called the National Arbor Day Foundation and they assured me that upon request, they would send members a substitute packet of Arizona Cypress for their regular "free" packet of trees. They said they'll also ship in December, which is the best time to plant trees where I live.

Those of you in northern New Mexico can request your trees be sent in the spring. You can find suitable trees in the NADF catalog. Those of us in southern New Mexico, who find the best or only time to successfully plant trees is in the fall, would need to call in for membership immediately to receive our free trees in time for fall planting.

I'm sure the NADF would like our SW feedback as it could help them increase the kinds of trees they provide. The National Arbor Day Foundation's toll free number is 1-888-448-7337. Their introductory membership is only \$10.

> Celinda Miller Gila Chapter

Arizona Cypress (in fact the entire Cypress genus) is one of the many trees banned by the City of Albuquerque (because of allergens), which, by the way includes junipers. Since our hillsides are covered with native junipers, one wonders what they were thinking. Several knowledgable people gave testimony to the city council, but to no avail. Someone's child had allergies. Oddly, there is no ban on Tamarisk or Russian Olive or Elm--three trees that give us fits, environmentally.

It seemed to me that the trees offered by the Arbor Day people are generally trees that would not do well; are much too large for the average lot, here; or even worse, are detrimental in some way. I've never actually supported it because I didn't want to deal with the trees offered. Instead, I just plant the trees that I consider appropriate, and pay for them myself.

> Beth Herschman Albuquerque

Name Search, Cont'd from Front Page

We found that little threeawn some three or four hours after leaving Colonia Juarez, three miles west of Cuesta Blanca, just as the Reeders had said. There they sat, small clumps saddled within the duff of dry needles, blades curling like woodshavings, the panicles arching upward, with rather few, large, drooping spikelets.

We immediately noticed that this threeawn had only a *single* awn, the presence of the other two told only by two little nubbins at the base of the central awn. We knew nothing like this; this was something new.

Such is the stuff of botany.

I think most field botanists thrill at the thought of finding a new species. We might think of this as pretty exotic fare, until we realize that in the United States alone 1,197 new species of vascular plants were found and described in the twenty years between 1975 and 1995, roughly 60 new species per year!

Right in our own backyards, new species continue to be discovered. Our friends Tim Lowrey

and Paul Knight recently named *Townsendia hyp-sophila* from gyp hills near San Ysidro, and Bill Hess and Bob Sivinski named *Zigadenus mogollonensis* from — where else? — the Mogollon Rim area of western New Mexico.

You might wonder just how all this naming of new species comes about.

New plant species are discovered either during field exploration or from examination of already collected herbarium specimens. Regardless of which comes first, the other almost always follows. We had noticed our new threeawn while sorting through stacks of *Aristida schiedeana*, a similarlooking species, then set off to find it living in the wild.

More discoveries

On that same trip, we came across another unknown threeawn hiding in the bushes at San Lorenzo Cañon near Saltillo. It also turned out to be a new species, and when we consulted the herbaria, we found that abundant material had already been collected and was waiting for us.

Once sufficient material had been gathered, notes taken, measurements compared, and we were



Kelly Allred on yet another plant quest in the wilds of New Mexico. The name quest followed.

sure we had a new species, we were faced with the prospect of writing up a formal publication to announce this species to the world.

We chose the botanical journal *Novon* (a madeup word from nova [new] and taxon), a rather prestigious international journal that would look good on our résumés. Publishing in this journal would also meet the requirements of effective publication set forth in the International Code of Botanical Nomenclature, the nomenclatural rules by which we were governed.

In our article we would describe completely the morphology of the new species, give a little key distinguishing it from similar-appearing species, and state the known distribution from our collections and those found in herbaria. We hired a botanical illustrator (neither of us being very artistic) to prepare line drawings of the new grass and its distinctive parts.

The rules also mandate a Latin diagnosis or description.

Diagnoses are short statements giving the salient and distinguishing features of the new species. Descriptions are fuller, more complete expositions of the entire plant and all its parts. Both are required to be in Latin, a carryover from the day when Latin was the *lingua franca* of the scientific world. Even though there are few nowadays who understand botanical Latin, and English has now replaced it as the language of science, the Code maintains this conservative rule. I personally like this throwback to the Victorian age of exploration and burgeoning science when a preoccupation with natural history was considered healthy and normal.

It's sort of the nomenclatural equivalent of oak barrister book cases with glass fronts.

Not being especially conversant in botanical Latin, we chose to craft as best we could a short diagnosis in this antiquated language, rather than a longer description. William T. Stearn's magnificent little book, *Botanical Latin*, provided the primer we needed to accomplish this task.

Now the new species needed a name!

Since the panicles contained few spikelets, we first decided to name it *Aristida pauciflora*, from the Latin *pauci*-, few, and *flor*, flower. In checking the literature, we found, however, that Samuel Buckley had already used this name in 1863 when he described what he thought was a new species of *Aristida* from northern Texas. Never mind that this earlier name was now sunken in synonymy (it's the same as *A. oligantha*), the rules prohibit having two scientific names referring to different species. So, *Aristida pauciflora* was unavailable to us.

Undeterred, we simply changed roots, picking up *spanos*- from the Greek for rare or scarce, and *spicula*, Latin for spikelet, giving us *Aristida spanospicula*. This even had a nice ring to it. *Aristida spanospicula* — it fairly rolls off the tongue!

So, the paper was completed and eventually published in *Novon*, after some minor skirmishes with the editor (which we lost), and now you'll find the name *Aristida spanospicula* on the lists of Mexican grasses.

Thus it is that these names are created and get into our manuals, our checklists, and get stuck in our minds. Happy hunting! #



Members of the Taos Chapter present books to Dorothy Kethler (2nd from left), Director of the Taos Library, to expand the circulating collection on native plant identification and landscaping. The members are, from left to right, Karen Epperson, Ann Smith and Judith Speer. The chapter raised \$1,000 for the project and was awarded a matching grant from NPSNM.

CONSERVATION CORNER

by Jim Nellessen

This year, even more than usual, people should be thinking about conserving water and gardening with plants native to their areas. Rain is scarce, ground water tables are being pumped lower and lower, the Rio Grande is being sucked dry, cities are rationing, and people are arguing over water for urban use, for agriculture, and for wildlife such as the Rio Grande silvery minnow.

Winter 2001-2002 was very dry and summer 2002 was also very dry. Winter 2002-2003 was better, but still not enough snow, and this summer (2003) turned out to be even worse than last summer. Temperatures in many parts of the state have been between 95° and 105° F all summer with almost no rain.

At our house in Rio Rancho we received only 0.16 inches of rain from the last week of March to August 17. Since August 17 we have received about 0.60 inches (0.4 inches in one event) giving us a cumulative total for the year at this point of about 2.7 inches, not much more than the annual average in Death Valley, California. Our monsoon season was an underachiever! An average of 9 inches in the Albuquerque area does not mean you get 9 inches every year. I had been watering some, but I cannot afford to water 6 to 9 inches to make up for the lack of rain.

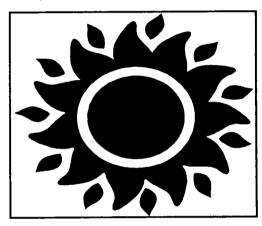
The Mexican black pine in our front yard (planted by the landscapers) has apparently succumbed to the same bark beetles that are killing piñons all across the state. Irises, tulips, daffodils, a few roses, a Bradford pear, and a plum tree in our yard have also succumbed to the drought. But I must admit, several non-native roses and my two Siberian elms held strong — pretty hardy plants indeed.

The Maximilian sunflower, the back centerpiece to my wildflower garden, gave up the ghost. Yes, a native, but with a natural distribution just grazing the eastern edge of the state or in moist locations elsewhere. Many places in Rio Rancho are a bit too dry for this species. One of my narrow-leaved penstemons and one of the desert penstemons (both 7-year-old plants) may have kicked the bucket this year too.

Most cactus plants hung in there. The hardy prickly pears shriveled up, but I know they will

swell once again when rain comes. I have actually lost a few small starter cacti, too young to deal with water shortages. Both young plants and older declining plants seem to succumb more easily.

Yet many natives in my yard seem unfazed. My cottonwood trees are holding up very well. Who says they need tons of water! Several of my shrubs are also doing well: three-leaf sumac, fourwing saltbush, broom snakeweed, thread-leaf sagebrush, broom dalea or indigobush, fernbush, greasewood, many-headed groundsel, threadleaf groundsel, desert willow, rubber rabbitbrush, honey mesquite, creosote bush, New Mexico locust, false indigobush, and winterfat.



The grasses just lie in wait for that big rain. When it does finally rain, the mesa and spike dropseed grasses, blue grama, and even the buffalo- grass respond quickly. The Indian ricegrass usually manages some blooms early in the season in response to winter moisture, but also often puts on a second display once summer rains start.

I mourn the loss of some of my plants to the drought, but also take joy in how well so many of the natives are holding up under such an incredible lack of rain. These are the summers that truly define what grows out on the west mesa of Albuquerque -- the Plains Mesa Sand Scrub dominated by threadleaf sagebrush, broom dalea, four-wing saltbush, prickly pears, mesa, sand, and spike dropseed grasses, with a smattering of galleta grass.

In my opinion, we must solve water shortages in the southwest. We can set up desalinization plants on the coasts and pump it to New Mexico and Arizona for urban use as we pump oil and gas all over this nation. We can stop all growth in the southwest. Or, through inaction, we can actually let the Rio Grande, Pecos River, and ground water tables go completely dry! Take your pick! #

Super Weeds?

Since genetic engineers devised herbicide-resistant crops in the mid-1990s, weed killers such as Roundup have become the wonder drugs of the farming industry, clearing our pest plants while leaving corn and soybeans intact. But weeds are developing resistance as well.

Weed specialist Ian Heap and his colleagues at the International Survey for Herbicide-Resistant Weeds in Corvallis, Oregon, have found that more than 50 species of herbicide-tolerant weeds have popped up just since 1995 — a trend fueled by the 2 billion pounds of herbicide farmers dump on their crops every year. "We're very concerned because so many soy and corn farmers rely solely on Roundup for weed control," he says. He is urging farmers to use different herbicides each year and to invest in old-fashioned methods of weed control, such as tilling the soil.

From Discover Magazine, September 2003

CLEAN WATER

From John Muir Society Bulletin: Clean Water: Healthy Planet

It is undeniable that we need a strong Clean Water Act to protect our wetlands and waterways. Just look at the statistics:

- More than <u>60,000 acres of wetlands</u> are destroyed annually.
- In 2001, there were more than 11,000 days of beach closings. Mostly due to elevated bacteria levels from polluted stormwater.
- 218 million Americans—75% of the population—live within ten miles of polluted water.
- Excessive nitrogen and phosphorous levels in the Mississippi River have created a vast "dead zone" in the Gulf of Mexico.
- 40% of America's waters fail to meet federal clean water standards and are unsafe for fishing, swimming, or supporting aquatic life.

In January of 2003, the Bush Administration used an ambiguous Supreme Court ruling as justification to remove federal protection from so-called "isolated" streams, ponds and wetlands, putting these waters at risk of being filled and polluted. This plan alone puts 20% of America's remaining wetlands—some 20 million acres—at risk.

VOLUNTEER PROFILE



Donna Stevens Gila Chapter

We are certain many of you know Donna Stevens through her articles describing the major characteristics of selected plant families in several issues of the NPSNM Newsletter, her active participation in workshops and field activities, and her attendance at meetings of the Board of Directors.

Donna is vice-president and program chair of the Gila Chapter where she does a superb job of working in a leadership role with other Board members in conducting the business of the chapter and identifying outstanding speakers. She is also a leader on many chapter field trips.

Over the past seven years Donna has become an integral part of our professional activities. Donna joined us while still a student at WNMU, and we soon recognized her intellectual enthusiasm and her skills in the use of the English language. Over this period of time, she has grown to become an outstanding field botanist. She is a joy to work with.

You will note that Donna has joined us as an author in our recent book titled, *Common Southwestern Native Plants - An Identification Guide*.

Jack and Martha Carter

Chapter Activities & Events

ALBUQUERQUE

2nd Thursdays at 7 PM at Albuquerque Garden Center, 10120 Lomas NE.

Jan. 8th. "Sacramento Mountains Checkerspot Butterfly and its Larva Plant." Nancy Baczek & Eric Hein. Feb. 5th. "New Mexico Lichens." David Boorstein. Mar. 4th. "Enchanting Orchids of New Mexico." Wayne Horzcecha.

GILA (Silver City)

Programs at Harlan Hall, WNMU Campus, 7 PM. Jan. 16th. "The San Pedro River System of Southeast Arizona." Robin Silver, M.D.

Feb. 20th. "Southwestern Ecosystems: Evaluating Disturbance Regimes and Global Change." Guy McPherson.

Mar. 19th. "Gardening with Native Plants." Speaker to be announced.

OTERO

Jan. 16th. "Float Trip down the Colorado River thru the Grand Canyon." Slide program by John Stockert. Call John at 505-585-2546 for more information. Feb. 21st. "Workshop, painting clay pots." By Nona Umberson (if weather permits). Workshop is on in any case, whether or not Nona can come. Call Helgi Osterreich at 505-585-3315 for more information. March 20th. Field Trip: Hike Old Road Above US 82 Tunnel. Led by John Stockert. Call 505-585-2546 for details.

SAN JUAN (Farmington) 3rd Thursdays at 7 PM, Room 1008, San Juan

Jan. 15th. Assessment and planning meeting.
Feb. 19th. "Invasive species." presentation by a
Bureau of Land Management weed specialist.
Mar. 18th. Please check with the chapter contact.

SANTA FE

Meetings 3rd Wednesdays at 7:30 PM. For the winter they will again be at St. John's College, Evens Science Laboratory Building, Room 122. Jan 21st "New Mexico Wildflowers Unique and Close-up." Vic Brown, Naturalist and Photographer. Feb 18th. "A History of the Baca Ranch, Valles Caldera National Preserve." Craig Martin, outdoor author, historian, and Open Space and Trails Specialist for Los Alamos County.

NPSNM BOARD VOTES TO OPPOSE PEARCE BILL

On the recommendation of the Conservation Committee chaired by Jim Nellessen, the NPSNM Board of Directors voted 13 in favor, 0 opposed and 2 abstentions to officially oppose House Bill 3102 introduced by New Mexico Congressman Steve Pearce. His proposal would have required the National Forest Service to delegate preparation of environmental impact studies on grazing leases in New Mexico and Arizona to three regional universities and would minimize involvement and control of these important studies by the professional staff of the Forest Service and the US Fish and Wildlife Service. Further details and the letter from President Lisa Mandelkern to Congressman Pearce registering Society opposition are available on the NPSNM Website.

LAWN LOVERS UNITED

Looks like our natural landscaping message is getting out there and getting under somebody's skin!

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The magazine says that careful use of pesticides and fertilizers, prudent use of water, and managing noise and air pollution resulting from power mowers and other garden tools are among the main issues the EF plans to tackle in this campaign. Financial contributors include John Deere, Dow AgroSciences, Lawn Doctor, The Toro Company, and Turfgrass Producers International, among many others.



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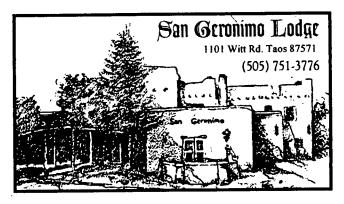
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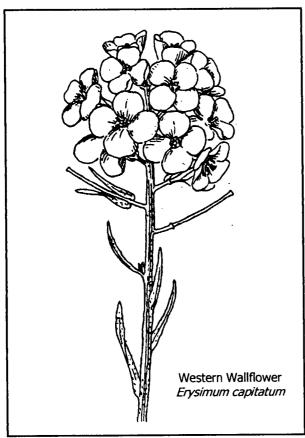


THE MUST-SEE MUSTARDS

by Donna Stevens

Fourth in a series about flowering plant families. Knowing the characteristics of the major plant families is essential for learning our native flora.

Remember when you had to finish your vegetables before you could leave the table? Chances are the offending veggies were in the Brassicaceae family. Cabbage, cauliflower, brussels sprouts, broccoli, kohlrabi and kale are all bred from a single species, Brassica oleracea. Other edibles in the genus Brassica are B. rapa (turnips & Chinese cabbage), and B. nigra and B. juncea, from which we get mustard. In fact, Brassicaceae is commonly called the mustard family.



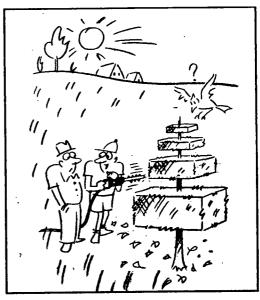
Robert DeWitt Ivey

There are many species of this family in New Mexico, and they're very easy to recognize. Their flowers have four sepals, and the four petals are arranged in the shape of a cross; the old name for this family is Cruciferae, meaning "cross-bearer." Most of the flowers have six stamens: two short and four tall. But the easiest way to recognize members of

Brassicaceae is by their fruits. Many of the twoparted capsules are long and slender and are called siliques.

Others are various shapes, such as round or almost round (sometimes with a notch in the top middle, and often with the style still present), spectacle-shaped (as in Dimorphocarpa wislizeni, Spectacle Pod), or almost heart-shaped (as in Capsella bursa-pastoris, Shepherd's Purse). Although the fruits are variously shaped, they have some common features: they are arranged alternately on the stem at the top of the plant, and are conspicuous, often because they stand erect at the end of long stalks. (It's hard to explain what makes the fruits so obvious. I suggest you look at the Brassicaceae illustrations in Robert DeWitt Ivey's Flowering Plants of New Mexico. When I carry only one plant book in the field, this is it!)

In New Mexico, all members of Brassicaceae are herbaceous annuals or perennials - no trees or shrubs. Some of our earliest spring wildflowers are in the genus *Draba*, the rockcresses. Watercress, another mustard member, grows in riparian habitats. Many disturbed areas in our state feature weedy species in the genera *Sisymbrium*, *Lepidium* and *Descurainia*. A common mustard of our state is the tall, beautiful Wallflower (*Erysimum capitatum*), with sunny yellow petals in lower elevations, and deep coppery-orange flowers at higher altitudes. Next time you're out and about, whether in town or in the woods, look for the must-see mustards.



"It used to be a tree!"

Book Reviews

Common Southwestern Native Plants: An Identification Guide

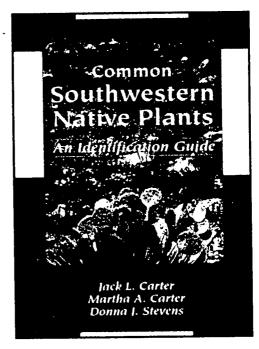
by Jack L. Carter, Martha A. Carter & Donna J. Stevens
Mimbres Publishing, Silver City NM 2003
Softcover \$20.00 ISBN 0-9619945-1-7

Reviewed by Bob Sivinski

I recall how delighted I was in 1997 when Jack Carter published his *Trees and Shrubs of New Mexico* (Mimbres Publishing). Here was a truly scholarly work that gave us a key to identification of every woody plant in the state – many of them rare or obscure. It does require a little effort and some understanding of botanical jargon which may intimidate a novice who is unfamiliar with dichotomous identification keys and cannot distinguish a gymnosperm from an angiosperm.

Martha Carter, Jack's wife, realized there was a need for a less technical field guide and set about the task of condensing Jack's earlier book into a simple field guide for the trees and shrubs most frequently encountered along the roads and rivers of New Mexico. The result is a botanical primer they named Common Southwestern Native Plants. The Carters, in collaboration with Donna Stevens, have provided all of the things that pique the interest of a botanical novice - colorful photos, line drawings, and answers to the inevitable question "What's it used for?" The 215 color photos in this book are especially nice and obviously taken in the field under natural light. Most have the superb color, texture and depth that are usually unattainable with flash photography. All convey a useful image of the characteristics necessary for species identification. Several photographers contributed, but most are by Martha Carter and the late Ralph Fisher.

A total of 108 woody plants and 38 herbaceous plants are treated in *Common Southwestern Native Plants*. Plants selected for this simple guide best represent the northern Chihuahuan Desert and mountains of New Mexico and Arizona. It will not be especially useful in the Sonoran Desert. The



woody plants are arranged in easily distinguished groupings of Gymnosperms – Cone-bearing plants; Trees; Small Trees or Shrubs; Shrubs; Vines; Arborescent Cacti; and Agaves and their Allies. The drawings and text for each woody species are included further along in the book and separate from the photos. The text provides descriptive and taxonomic details, a wealth of ethnobotanical tidbits, geographic ranges, and brief habitat descriptions.

This is not a book on horticulture, but native plant gardeners will find the plant and habitat descriptions very useful. Herbaceous plants are treated differently by having a brief informative paragraph with each color photo. Choosing only 38 out of the several hundred common herbaceous plants in the Southwest must have been a difficult task. These all have one thing in common – they are all strikingly showy and leave an impression. Some are actually uncommon in the field, but all deserve to be common in native plant gardens.

This book is destined to be the most handy and interesting introduction to native southwestern plants for the botanical novice. If you know such a person, this is the perfect gift.

Ed: Common Southwestern Native Plants: An Identification Guide is available from the NPSNM Bookstore. Contact Lisa Johnston at 505-748-1046 or e-mail her at nps_nmbooks@ hotmail.com. For additional information concerning copies for resale, contact: Mimbres Publishing, P. O. Box 1244, Silver City, NM 88062.

The Future of Life

by Edward O. Wilson Hardcover by Alfred A. Knopf, NYC, 2002 Softcover by Vintage Books, March, 2003 Softcover price \$13.00 ISBN: 0-679-76811-4

Review by Bill Armstrong, Gila Chapter

The writings of the eminent biologist Edward O. Wilson often strive to reach beyond the scientific community to warn us about what will happen if we, all six billion of us, continue to thoughtlessly exterminate the world's plant and animal species. It's "the Big Problem," Wilson says, and we have to do something about it now.

While all his books draw extravagant praise, his latest effort, *The Future of Life*, seems best suited to capturing the broader audience he has sought. For the most part, it's an engrossing read, the science is by turns fascinating and frightening, and best of all, this time out, Wilson writes with his heart as well as his head.

He begins with a warm, nonscientific letter to Henry David Thoreau, apologizing for what we've done to nature since the days of Walden. It is to his friend Henry that Wilson confides his approach to this book: "I am here for a purpose: to become more a Thoreauvian, and with that perspective better to explain to you...to others, and not least to myself, what has happened to the world we both have loved."

It is doubtful that anyone has better command of the salient facts that have led to Earth's doleful plight. Beginning with the twentieth-century's explosion in human population and its concomitant habitat loss, pollution, climatic change, and species extinctions, Wilson tells us how, in only a hundred years, we have imperiled the biosphere, jamming it into a "bottleneck," that will be very difficult for many species to pass through.

Understanding our compulsion to put a price tag on everything, including the environment, Wilson can show that there is a heavy economic price to pay in artificially producing anything that nature already delivers free of charge. New York City discovered this recently. When the EPA presented the city a choice between spending up to \$8 billion for a new water filtration system or \$1 billion to restore the natural watershed in the Catskills, the city made the right choice.

But success stories are the exception. With the ongoing collapse of ocean fisheries, for example, Wilson says we are foolishly shifting our focus to fish farming. Unfortunately, this industry actually accelerates the degradation of wild fish stocks, ruins wetlands and other habitat, and diverts cropland production into domestic fish fodder. It would be far more sensible to begin restoring wild fisheries to health.

After a lifetime studying plants and animals, Wilson asserts that the more he knows about them, the more he respects their right to continue their journey with us through time and change. It is this nonscientific conclusion that enables him to speak convincingly about the loneliness we're going to feel without our nonhuman brethren, unless we awaken soon from our anthropocentric dream. Our descendents might survive in a diminished world, but they'll be diminished too. "The issue," says Wilson, "is moral. Science and technology are what we can do; morality is what we agree we should do."

Repeatedly, Wilson warns us that time is short. The rate of environmental deterioration is increasing so swiftly, he writes, that the extinction of 20 percent of all plant and animal species over the next thirty years is all but inevitable. Furthermore, without immediate changes in human activity, extinctions will likely rise to 50 percent by the end of this century—a scenario of mass extinctions of apocalyptic dimensions.

In his wrap-up chapter, Wilson seems to contradict himself, claiming we might yet avert the train wreck he has already predicted. The reason, I believe, lies in his commitment to hope. "I have to be an optimist," he says, almost apologetically. But we can forgive Wilson his longing for a happy ending. He so loves the world and its magical biosphere that he can't relinquish hope for the world as he found it. Nor, ultimately, can he mask his deepening doubts that Earth's seething six billion can muster the wisdom to save it. #

"Over the long haul of life on this planet, it is the ecologists, and not the bookkeepers of business, who are the ultimate accountants."

Stewart Udall

Governor Bill Richardson Honors Robert DeWitt Ivey



Photo and story by Bob Sivinski

The publication of Robert DeWitt Iveys's fourth edition of *Flowering Plants of New Mexico* did not go unnoticed by the State of New Mexico.

DeWitt and his wife Vivian were invited up to the Round House (the New Mexico State Capital Building) on November 19th, 2003, where Governor Bill Richardson personally handed him the Governor's honorary award for achievement.

DeWitt then presented Richardson with a signed copy of his book and the Governor expressed the thought that he wished he "could have enough time to study plants as well as politics."

Several friends from the Santa Fe Chapter were also on hand to see this honor bestowed upon one of our most talented NPSNM members.

Decades of work dedicated to the understanding and illustration of New Mexico flora will ensure that Robert DeWitt Ivey's name will always be associated with the epithets "Artist," "Scholar" and "Expert."

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