Native Plant Conference



Honoring the Past, Preparing for the Future

August 4-7, 2011 Institute of American Indian Arts Santa Fe, NM Santa Fe Chapter of NPSNM



(Photo by Gary Johnson)

Sponsored by New Mexico Educators Federal Credit Union

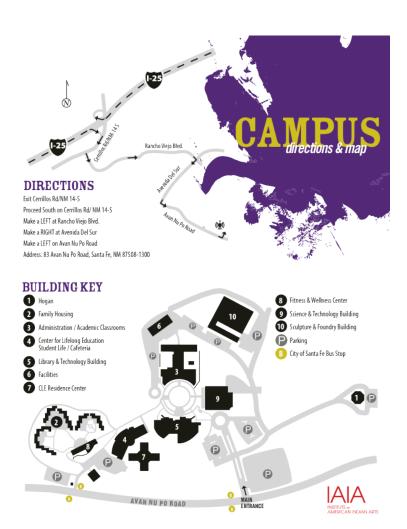
Native Plant Society of New Mexico

The Native Plant Society of New Mexico (NPSNM) is a non-profit organization run by volunteers to educate members on native plant identification, ecology, and uses; encourage preservation of natural habitats; support botanical research; and promote use of native plants for conservation of water, land, and wildlife. We have over 800 members in 8 chapters located throughout New Mexico including El Paso, Texas and Colorado.

The Society was organized in 1976, making 2011 the 35th anniversary of the founding of the Society. That first meeting was held in Santa Fe, but new members hailed from around the state. The first statewide meeting was held August 16, 1980 at the Fourth of July Canyon in the Manzano Mountains, making this the 31st annual meeting of the NPSNM. The logo was adopted in 1983 showing a coneflower against the state outline. On behalf of the Santa Fe chapter volunteers we welcome you to Santa Fe and our best wishes for a wet and wonderful conference

Thomas M. Antonio, Ph.D. President NPSNM

Lectures in Auditorium of the Library Technology Bldg # 5 Lunch in Center for Lifelong Education Bldg # 4 Workshops 1-2 in Rm. 120 Science & Technology Bldg # 9 Tales of Maya Skies – Science & Technology Bldg # 9 Residence Dorms in Bldg #7



2011 Annual Meeting Program NPSNM Program Details

Thursday August 4

1:30 pm-5:00 pm NPSNM Board Meeting (Conference Room # 2, 2nd floor, Building # 4)

3:00 pm-6:00 pm Registration

5:30 pm- 7:30 pm Reception for board members

Friday August 5 - Morning (LTC Auditorium Bldg #5)

7:30 am-3:00 pm Registration

8:00 am-8:45 am Coffee, tea, assorted fresh cut fruit and assorted muffins

8:00 am-4:00 pm Book sales and silent auction

8:45 am–9:00 am Welcome and Opening Remarks:

Dr. Thomas Antonio, President, NPSNM

9:00 am–9:50 am Plant Community Response to Climate

Variability in central New Mexico

Dr. Scott Collins, Professor, UNM & Director

Sevilleta LTER

10:00 am-10:15 am Short Break

10:15 am–11:05 am Ancient Landscapes of New Mexico

Dr. Kirt Kempter, geologist

11:10 am–noon Nanus, Gigantium Humeris Insidentes: The Making of Flora Neomexicana

Dr. Kelly Allred, NMSU

12:00 pm-1:30 pm Lunch at IAIA Café (included in pre-registration) ticket in name tag (Bldg #4)

Lunch Menu Green Curry Chicken and Vegan Red Curry Tofu Jasmine Rice, Grilled Bok Choy, Salad bar, Beverages and Desserts

Friday August 5 Afternoon Session

(LTC Auditorium)

- 1:00 pm-5:00 pm Book sales and bid on items in the silent auction
- 1:30 pm–2:20 pm *The Big Machine and the Much-Maligned Taxonomist*Dr. Donovan Bailey, New Mexico State University
- 2:20 pm-2:35 pm Short Break
- 2:35 pm—3:25 pm The Brave New World of the Compositae: New Insights into their Evolutionand Classification Dr. Timothy Lowrey, Professor, UNM
- 3:25 pm-4:15 pm Desolate to Some: Desert Plant Strategies and
 Curiosities
 Gene Jercinovic
- 4:30 pm-5:45 pm Reception Lobby outside LTC Auditorium Lemonade, ice tea, assorted cookies, cheese & crackers

4:45 pm 1st showing of *Tales of the Maya Skies* 5:30 pm 2nd showing of *Tales of the Maya Skies*

Tales of the Maya Skies - Digital Dome Presentation

With unprecedented realism, *Tales of the Maya Skies* immerses us in Maya science, art and mythology, using full dome digital technology to transport us back into the world of the Maya.

Location: IAIA Science & Technology, Bldg # 9 on Campus Map

Limit: 45 participants for each showing, ticket in name tag.

Time: 35 minutes

Dinner on your own in one of Santa Fe's world-class restaurants (See restaurant lists in your registration packet)

Saturday August 6 Morning Sessions-Field Trips & Workshops

> Lunch Menu Coconut Poached Salmon Black Bean Patty with Tomato Coulis Wild Rice with Squash, Sautéed Spinach Salad bar, Beverages and Desserts

1. Often Overlooked Native Plants for your Garden

Join Bob Pennington, purveyor and propagator of native plants for the last 35 years, as he discusses underappreciated native plants. **Limit:** none **Location:** Room 120, IAIA Science and Technology Building, # 9 on Campus Map **Time:** 9:00 am- 10:30 am **Facilitator:** Bob Pennington

2. Plant Drawing Workshop

This is a basic, non-technical session on how to draw plants. The class will be hands-on drawing with a few demonstrations. The goal is to have each participant leave the session with a nice drawing. Basic supplies- paper, pencil, and eraser – will be supplied, as well as

some plants to use for models. If you want to bring a special plant, place it in a baggie with a few drops of water and store it in the refrigerator until needed. **Limit:** none: **Location:** Room 120, IAIA Science and Technology Building #9 **Time:** 10:30 am – noon

Facilitator: Dorothy Hoard

3 A. Trip to Canada Bonito has been replaced with – East Fork

Following your drive through several miles of the destruction caused by the recent Las Conchas fire, you will be rewarded with a beautiful hike along the East Fork. The Las Conchas burn began opposite the "Day Use" parking area. The picturesque walk along the creek into a narrow canyon will reveal a wide spectrum of plants. The canyon will take you close to the southern edge of the Valles Caldera. Box lunches provided for participants. **Difficulty**: Moderate to Easy

Limit: 25 participants **Elevation:** 8,500 - 8,700′ **Distance:** 2 miles

Location: Los Alamos **Time:** 7:30 am–1:30 pm

Leader: Dr. Chick Keller

4 A. Trip to Diablo Canyon Butterfly walk has been replaced with- Butterfly Walk at Project PRESERVE

Participants will enjoy visiting a riparian restoration project along the Santa Fe River ~3.5 miles below the Santa Fe water treatment plant. Return of willows, cottonwoods and other native wetland plants, abetted by the Santa Fe Girls School, offers habitat for traditional streamside critters like Taxiles Skipper and Large Wood-nymph, and scarce riparian butterflies like Sylvan Hairstreak and Viceroy. The area is level, but with few defined trails. While thrashing through reeds we may encounter marshy conditions, mosquitoes, frogs, damselflies, birds - the usual ingredients for a fun adventure. Nets, cameras, field guides and binoculars welcome. **Difficulty:** moderate **Limit:** 15 participants **Elevation:** 5,900-6,250′ **Distance** 2-3 miles **Location:** 3.5 miles below the Santa Fe water treatment plant **Time:** 8:30–noon **Leader:** Steve Cary and Dr. Linda Wiener.

5. Santa Fe Ski Basin (as we go to press this trip is still cancelled) Englemann Spruce and Cork-bark fir forest, stream-side meadows and montane grassland. More than 215 plant species, including 5 orchids, 4 gentians, and many other montane species. August is the

best season for seeing this flora. **Difficulty:** Easy **Limit:** 25

participants **Elevation:**10,000′ **Distance:** 1-2 miles.

Location: 16 miles from downtown Santa Fe on Highway 475 (Hyde

Park Road) Time: 8:00 am- noon Leader: Dr. George Cox

5 A. Santa Fe Ski Basin trip replaced with-Once the Smoke Clears

Fires have been a common occurrence in New Mexico this year because of drought and the conditions of many of our forested lands. Fires have burned private property, public, and sacred lands. In the public's mind, fire means moonscapes and disappearance of plant and animal life. However, fire burns at different intensities depending on the land use history and nature heals. Teralene (Terry) Foxx has studied forest recovery after wildfire for over thirty years and will share her research and experience. She will lead a driving/walking tour of areas of Los Alamos and describe the influence fire has had on this landscape and its inhabitants (plant, animal, and human).

Difficulty: Easy **Limit:** 25 participants **Elevation:** 10,000′ **Distance:** 1-2 miles. **Location:** Los Alamos area **Time:** leave Santa Fe 8:00 am,

 $9{:}00$ am-11:30 am arrive back at IAIA for lunch at 12:30 pm.

Leader: Teralene (Terry) Foxx

6. Ethnobotany at Leonora Curtain Wetland Preserve

Join us for a unique tour of a rare natural 35-acre wetland that is managed by the Santa Fe Botanical Garden. This is an ideal habitat of ethnobotanical significance. From cacti to cattails this site is home to over 250 species of plants. **Difficulty:** Easy **Limit:** 15 participants **Elevation:** 6,500′**Distance:** 1-2 miles **Location:** 5 miles S of the IAIA campus **Time:** 8:30–12:00 noon **Leaders:** Nancy Daniel and Jim McGrath

7. Acequia Madre House

Visit the historic home of ethnobotanist Leonora S.M. Curtin, whose seminal book *Healing Herbs of the Upper Rio Grande* is still in print, and for whom the Leonora Curtin Wetland Preserve is named. The house includes original art and furnishings collected by three generations of her family of prominent cultural figures and preservationists. **Difficulty**: Easy **Limit**: 15 participants

Elevation: 7,000' Location: 614 Acequia Madre, park across the

streetat Acequia Madre Elementary School, Santa Fe **Time**: 8:00 am–11:30 am **Leader**: Bunny Huffman

8. Randall Davey Audubon Center House tour, Herbarium, and Bird/Plant Walk

We will tour the historic home and art studio of Randall Davey, once the original mill building and now a museum. Tour includes a visit to the herbarium of the New Mexico Natural History Institute. This collection of over 2,000 plants, along with books and papers is available for use by the public. Trip ends with a hike along the Center's trail to view birds (135 species) and native plants in habitats ranging from meadows to Ponderosa pine forests. **Difficulty:** Easy **Limit:** 15 participants **Elevation:** 7,500′ **Location:** 3 miles from Santa Fe plaza. If staying in IAIA dorms leave at 7:30 to meet the group at DeVargas Mall at 8:00 **Time:** 8:30 am—noon **Leaders:** Carol and Gary Johnson, Dr. Roger Peterson (at the herbarium) and Dr. George Cox.

9. Santa Fe Botanical Garden at Museum Hill Tour

This future water-wise garden is located along Arroyo de Los Pinos adjacent to Museum Hill in Santa Fe. Join us as two experts instrumental in the design of this garden discuss the challenges and opportunities of this unique location. **Difficulty:** East/Moderate **Limit:** 15 participants **Elevation:** 7,000′ **Location:** Museum Hill about 2 miles E of Santa Fe Plaza **Time:** 8:30 am–11:30 am **Leader** Tracy Neal and Linda Churchill

10. Santa Fe River

Learn what is happening with this tour of America's most endangered river, downstream of the San Ysidro Bridge. In the traditional village of Agua Fria we will look at river restoration and native plant projects. Just uphill from the river the hike will continue to the home and neighborhood of innovative landscape designer Christie Green, where problematic flooding and erosion have been transformed into forces creating mini-wetlands and gardens. **Difficulty:** Easy **Limit:**

15 participants **Elevation:** 7,000' **Location:** within Santa Fe city

limits **Time:** 8:30 am-11:30 am

Leaders: Barbara Fix and Santa Fe Watershed Association personnel

Saturday August 6 Afternoon Sessions

12:30–4:00 pm Book sales and final bids in silent auction

1:15–2:15 pm Panel Discussion (LTC Auditorium)
Rain and Rivers: Living in an Increasingly Arid Climate

Introduction/Moderator- Barbara Fix

Panelists:

Nate Downey, author of *Harvest the Rain*, Miguel Santistevan, ethnobotanist, farmer, teacher, permaculturalist, community activist Craig Sponholtz, agriecology expert on permaculture. His work will be seen on the Saturday field trips.

2:15–2:30 pm Break

Native Pollinator Session (LTC Auditorium)

2:30 pm-3:00 pm	Sexual Behavior in Plants: Ménages á Trois,
	Autoeroticism, and Other Deviations
	Patrick Alexander
3:05 pm-3:35 pm	Moths: Pollinators Extraordinaire
	Dr. Eric Metzler
3:40 pm-4:10 pm	Native Bees of New Mexico
	Karen Wetherill
4:15 pm-4:45 pm	Butterflies as Pollinators: Good News and Bad
	News
	Steve Cary
4:45 pm-5:45 pm	Pick up silent auction items

6:30 pm Banquet 7 PM at Temple Beth Shalom, 205 East Barcelona, Santa Fe, NM.

100 Great Photographs of New Mexico Plants Robert Sivinski, botanist NM Forestry Division

Banquet Menu

Fresh Local Baby Greens and Herbs with Roasted Local Pepper Vinaigrette
Oven Dry Local Cherry Tomatoes and Fresh Mozzarella Salad on a Bed
of Local Spinach and Champagne Vinegar Reduction and Grape Seed Oil
Carrots with Local Honey Drizzle
Assorted Fresh Baked Breads
Boned Local Chicken with Wild Mushroom and Madeira Wine Butter Sauce
Silver Dollar Rolls and Butter
Vegan Stuffed Mushrooms with Madeira Wine Butter Sauce
Burnt Orange Chocolate Tart with Berries
Ice Tea and Lemonade
Wine and Local Beers

Directions to the Banquet: Temple Beth Shalom, 205 E. Barcelona, Santa Fe 6:30 PM- dinner served at 7:00 PM.

Exit IAIA , turn rt. or west to Avan Nu Po Road - .08 miles Then turn right onto Avenida Del Sur - 0.7 miles Take the first left onto Rancho Viejo Blvd. - 1.7 miles Turn right onto NM-14 N - 0.3 miles Merge onto I-25 N towards La Vegas - 6.3 miles Take the NM-466/Old Pecos Trail exit #284 - 0.4 miles Turn left onto OLD PECOS TRAIL/NM-466 W - 1.5 miles Turn slight right onto OLD PECOS TRAIL- 1.3 miles (OLD PECOS TRAIL is 0.2 miles past E ZIA RD.) Turn left onto E BARCELONA - 0.2 miles 205 E BARCELONA RD. is on the RIGHT Drive time- 20 minutes

Sunday, August 7 Field Trips

11 A. Trip to Holy Ghost Canyon replaced with-Wagon Mound Ciénega

While the drought afflicted plains and Santa Fe Trail are baking in the sun, this green oasis offers a variety of native wetland plants for viewing and photography. See beautiful milkweeds, checker mallow and other unusual ciénega plants. Can return to Taos via Black Lake. **Difficulty:** Easy **Limit:** 25 participants **Elevation:** 6,200′ **Distance:** no hiking–only road stops **Location:** 100 miles NE of Santa Fe on I-25 (about 1 hour 30 minute drive) **Time:** 7:30 AM–Noon **Leader:** Bob Sivinski

12. Cerrillos Hills State Park- Its "Grassinating"

Over the past 1,300 years, the Cerrillos Hills have been mined, grazed and tramped through, yet there is a remarkable variety of plants here. Join us for a hike through the hills showcasing the grasses and the history of the hills. **Difficulty:** Moderate/Easy **Limit:** 18 participants **Elevation:** 5,800-6,100′ **Distance:** 2-3 miles

Location: Cerrillos Hills State Park, 16 miles south of Santa Fe via state Road 14. **Time**: 8:00 am-11:30 am **Leader:** Sarah Wood, Park

Manager Fee: \$5 per vehicle- carpool to save money!

13 A. Trip to East Placitas Open Space replaced with-Riparian Plants and Habitat of the lower Santa Fe River at Project PRESERVE

For ten years students have been removing non-native plant species and have been monitoring the results. See the difference between a recovering riparian habitat and the adjacent BLM river site that has yet to be restored. We will explore the 9-acre Preserve and may walk upstream, exploring the wetlands, or we may choose to hike to the top of the mesa to get a broad view of the flood plain and the river. **Difficulty:** Easy to Moderate **Limit:** 20 participants **Distance:** 2-3 miles **Location:** 25 minutes south from downtown Santa Fe **Time**: 8:00 am- 11:00 am **Leader:** Will Barnes

14 A. Trip to Valles Caldera Dendroglyph Tour replaced with-Villanueva State Park

Riparian bottomland of the Pecos River plus east-facing and west-facing canyon slopes. More than 230 plant species, including 7 ferns,

8 cacti, 40 grasses, and 45 composites. **Difficulty**: Easy. **Limit**: 30

participants. Elevation: 5700'. Distance: 1-2 miles.

Location: 49 miles east of Santa Fe. Time: 7:30-noon. Leader: Dr.

George Cox

15 A. Trip to Valles Caldera National Preserve replaced with-East Fork

See description under 3A.

No box lunches provided. **Difficulty**: Moderate to Easy **Limit**: 25 participants **Elevation**: 8,500 - 8,700′ **Distance**: 2 miles **Location**: 50 miles N of Santa Fe, Los Alamos **Time**: 7:30 am–1:30 pm

Leader: Dr. Chick Keller

SPEAKER BIOS-

Dr. Patrick Alexander is a recent Ph.D. graduate in Botany from New Mexico State University (NMSU). His bachelor's degree is from Indiana University in Bloomington, Indiana. His research focuses on the mustards.

Dr. Kelly Allred grew up in the San Francisco Bay Area of California (Palo Alto). He studied botany at Brigham Young University and Texas A&M University. He has lived in Las Cruces since 1979, taught botany courses at New Mexico State University from 1979-2010 and is now ¾ retired and ¼ professing. He is one of the most knowledgeable people on New Mexico botany; he started the New Mexico Botanist newsletter 1995 and published 50 editions over 15 years. Kelly has also maintained the official listing of New Mexico vascular plants and recently published it with the name *Flora Neomexicana* I. His published *Flora Neomexicana* II is an interesting and fun lexicon on the meaning of Latin names for New Mexico plants. His final *Flora Neomexicana* III is nearly ready for publication and will be a collaboration with DeWitt Ivey to produce an illustrated identification key to the entire New Mexico flora.

Dr. Donovan Bailey is an Associate Professor of Biology and curator of the NMSU Department of Biology Herbarium, a collection of ca. 70,000 specimens primarily from the southern half of New Mexico and adjacent northern Mexico. Donovan obtained his bachelor's degree in Botany from UC Davis and worked as an Assistant Forest Botanist conducting threatened and endangered plant work prior to receiving a Ph.D. focused on little known species of the mustard plant family endemic to Mexico. At NMSU Donovan teaches a range of courses including introductory biology, plant

taxonomy, plant evolution, and molecular biology; his research focuses on questions related to plant evolutionary biology and taxonomy.

Steve Cary was born and raised in the Upper Midwest and earned his B.S. and M.S. from the University of Wisconsin in Madison. He arrived in New Mexico in 1980 and began a 30-year career in environmental protection and natural resource management. Butterflies are Steve's passion and he has published numerous scientific and popular articles on these amazing creatures. Through countless walks and talks around the state, he has become New Mexico's unofficial Butterfly Guy. New Mexico Magazine published his wonderful book, *Butterfly Landscapes of New Mexico*, in 2009. Steve concluded his career in New Mexico state government in 2010 and now serves as the community naturalist at the Randall Davey Audubon Center in Santa Fe.

Dr. Scott Collins, president-elect of the Ecological Society of America, received his Ph.D. from the University of Oklahoma in 1981. After a postdoc at Rutgers University he returned to the University of Oklahoma as an Assistant and then Associate Professor of Botany. In 1992 he moved to the National Science Foundation, where he served as a Program Director in various programs including Ecology, LTER, Conservation and Restoration Biology, and Integrated Research Challenges. In 2003 he moved to the University of New Mexico, where he is now a Professor of Biology and the Principal Investigator on the Sevilleta Long-term Ecological Research Program (LTER). The overarching goal of the Sevilleta LTER is to understand how abiotic drivers and constraints affect dynamics and stability in aridland populations, communities, and ecosystems.

Nate Downey and his wife, Melissa McDonald, have a landscape design firm that uses principles of permaculture to create beautiful, functional, and water-wise ecological projects. Nate writes a monthly column on permaculture for the Santa Fe New Mexican and his recent book is entitled *Harvest the Rain*. (505) 424-4444. www.sfpermaculture.com.

Gene Jercinovic was born in Los Alamos before it existed. His father babysat the first atomic bomb at Trinity Site the night before its detonation. Perhaps the early exposure to radiation would explain Gene's odd character. Currently he lives in Deming with his wife Betty and their black lab Bisco. He spends his time hunting, gathering, and photographing plants in southwestern New Mexico. He also studies the history of the botanical exploration of the state.

Dr. Kirt Kempter is a Fulbright Fellow and Ph.D. graduate from the University of Texas at Austin, where he conducted his dissertation research

on Rincón de la Vieja volcano in Costa Rica. For the past 10 years Kirt has worked for the New Mexico STATEMAP program, studying the geologic history of northern New Mexico. Kirt is also an instructor for NASA's astronaut training program, teaching the 2009 astronaut candidates geologic mapping techniques in northern New Mexico.

Jeremiah Kidd, using permaculture principles and techniques, has constructed water catchment, stream restoration and other "sustainable" projects, both locally and overseas in Tanzania, Uganda, Vietnam and Indonesia. (505) 983-3841. www.sipermaculture.com.

Dr. Timothy K. Lowrey is a Professor of Biology, Curator of the UNM Herbarium, and Associate Chair of the Biology Department. He obtained his Ph.D. in Botany from the University of California, Berkeley. His dissertation was a biosystematic revision of Hawaiian *Tetramolopium* (Asteraceae). He has been a faculty member at the University of the Witwatersrand, Johannesburg, South Africa (1982-1987), National University of Singapore (1987-1990), and the University of New Mexico (1990-present). He has contributed taxonomic treatments to Flora North America Vol. 20 and the Jepson Manual Ed. 2. He has been Chair of the Collections Committee of the American Society of Plant Taxonomists, Council member of ASPT, and President, International Organization of Plant Biosystematists. He is currently a member of the Editorial Board of Flora North America. He is also the Director of the New Mexico Biodiversity Collections Consortium (nmbiodiversity.org).

Dr. Eric Metzler was born in Michigan. He started studying insects when he was knee-high to a grasshopper. Eric attended Michigan State University where he received a degree in Parks and Recreation Resources and a minor in Entomology. Eric's goal was to be a park naturalist. He retired from the Ohio Department of Natural Resources. Eric was named Ambassador of Natural Resources by the Governor, and he was inducted into the Ohio Natural Resources Hall of Fame. Eric published 46 scientific papers on Lepidoptera, and he described 11 species of moths new to science. His most recent book in 2010 is a study of moths from Ohio. Eric is studying the moths of Carlsbad Caverns National Park and White Sands National Monument where he discovered several species of moths new to science.

Miguel Santistevan is an ethnobotanist, farmer, teacher, permaculturalist, community activist, UNM Biology Ph.D. candidate and researcher in traditional acequia-irrigated and drylands agriculture of the Upper Rio Grande and Sangre de Cristo Mountains. (575) 751-7667. www.theshiftofland.org.

Bob Sivinski, Botanist, New Mexico State Forestry Division, manages the Rare and Endangered Plant Program for the state of New Mexico at the NM Forestry Division. He is also program manager for the Natural Lands Protection Act and the Forest Legacy Program, which are both land conservation programs. He was NPSNM President from 2000-2002. He received the State Forester's Award for 2005, designating him as the division's employee of the year in recognition of his accomplishments, including the procurement of property to help protect and preserve endangered plants of Northern New Mexico.

Craig Sponholtz, an expert in agriecology and permaculture, has designed and constructed erosion control and watershed restoration projects with heavy machinery and hand-built structures all over the Southwest. He coauthored *Erosion Control Field Cards*. His work will be seen on the Saturday field trips to Museum Hill and the Santa Fe River. (505) 577-9625. www.drylandsolutions.com.

Karen Wetherill is a Ph. D. student at the University of New Mexico. Her areas of interest are bee community ecology, plant phenology and evolutionary history of native bees. Before going back to school, she worked as a Research Scientist for the Sevilleta Long Term Ecological Research Program for ten years. She has two ongoing long-term projects on bee communities and flower phenologies at the Sevilleta National Wildlife Refuge. She has also done research at the Bosque del Apache looking at the influence of salt cedar removal on bee communities.

For financial support of the 2011 New Mexico Native Plant Conference, the NPSNM Santa Fe Chapter thanks the **New Mexico Educators Federal Credit Union**. Many thanks to the businesses and individuals who donated items to the Silent Auction. For their time, knowledge, and enthusiasm, the Santa Fe Chapter thanks each speaker, field trip and workshop leader. For their hours of planning and logistics work, NPSNM thanks the many volunteers of the Santa Fe Chapter.