

2022 Annual Conference Program

A Land Ethic for Seven Generations

Thursday, August 4

NPSNM Board Meeting, 1:00-3:00

Friday, August 5

8:00 am-4:00 pm Check-In/Registration, UNM Continuing Education Building

9:00 am-9:30 am Welcome and Opening Remarks, Carol Conoboy, president of the Albuquerque Chapter

9:30-10:30 am **Climate Change and Long-term Ecological Research at Sevilleta**, Friday Keynote Speaker, Marcy Litvak

Dryland ecosystems cover almost half the earth's land surface and they are expanding. New Mexico is considered the most water challenged state in the U.S. so we are fortunate that since 1988 the Sevilleta National Wildlife Refuge has been the site of the desert Long-term Ecological Research (LTER) program. The convergence of biomes within the 3600sqkm research area spans Rio Grande riparian bosque, Chihuahuan Desert to subalpine forests and meadows making the LTER research a critical resource in developing an understanding of the environmental consequences of climate change in arid and semi-arid environments.

10:30-10:45 Break

10:45-11:30 **Botanically-Based Environmental Education for Land Health and Human Health**, Dara Saville

As rapidly unfolding ecological changes usher in a new era of awareness, there is an urgent need to engage the general population in environmental education, including activities that not only help people to understand environmental changes and their cultural impacts but also provide ways for communities to take meaningful action.

11:30-12:15 **A Tale of Three Rivers**, Dr. Mary Harner

As interconnected systems, rivers reflect landscape modifications and are influenced profoundly by human activities and ecological change. This presentation focuses on applications of digital technologies to document and convey riverine landscape change, featuring examples from the Platte River in Nebraska and Middle Rio Grande and Gila River in New Mexico. Collectively this work seeks to share science and stories about rivers that connect us.

12:15-1:30 lunch

1:30-2:15 **Alpine systems**, Dr. Hannah Marx, new UNM herbarium curator. Evolution and ecology of alpine plant communities and observations on the effects of climate change.

2:15-2:45 **Tracking the Wild on an Ephemeral Sandbank**, Lenore Goodell

A detailed look in photographs, of an ephemeral sandbank on the Rio Grande, adjacent to the San Antonio Oxbow which is a protected wetland. It is a location bounded by the urban environment of Albuquerque. Lenore will take us on a photographic journey of plant succession over the course of five years, from the first appearance of unusual native plants to dominance of exotics like tamarisk seedlings and sweet clover, but there are still some tantalizing natives to be found.

2:45-3:00 Break

3:00-3:20 **Nature's Internet: How Trees Talk to Each Other in a Healthy Forest**, Suzanne Simard Ted Talk video

3:20-4:20 **Student Poster Presentations**

5:00-7:00 **Reception** at Carol and John Conoboy's house. 203 El Camino Verde, Corrales
Dinner on your own

Saturday, August 6

Field trip selections are based on locations of natural or scenic interest, length, and difficulty. Stated lengths of trails are round-trip. NOTE: Some trips may be substituted with a similar or alternative destination. Field trips or workshops marked with an asterisk (*) indicate a companion workshop or field trip related to a presentation. **Canceled field trips and workshops are in red.**

Saturday field trips, leaving from UNM Continuing Education at 8:00 am, return by noon unless indicated otherwise. Car-pooling is encouraged. Special requirements are noted for specific destinations. TH = trailhead.

FT1 Carlito Springs Open Space, Tijeras - (Canceled due to site closure)

Easy/Moderate, ca. 3 miles: Carlito Springs is a historical resort with newly renovated buildings and a spring-fed garden area. The field trip will be a circuit route, climbing moderately from the parking lot on a wooded trail along a creek bed. The well-maintained return trail will circle down a sunnier hillside.

FT2 Milne Open Space, Cedar Crest - Easy, ca. 2 miles: a lower elevation field trip on the east side of the Sandia Mountains; examining an open field, a narrow ravine, a meadow, and a lightly wooded forest trail.

FT3 Petroglyph National Monument - Mesa Prieta - Moderate; 3 miles: at the edge of Albuquerque's westside residential development, following a hilly gravel track to the base of the lava escarpment, then returning through a sandy arroyo and slight uphill climb back to the TH. NOTE: This is NOT a hike for viewing petroglyphs, but offers an interesting array of plants, views and some impacts of urban development.

*FT4 Rio Grande Oxbow - Easy, ca. 2 miles: west side of the river, exploring the unique habitat of a drain and the sandbank left after the Rio Grande flooding of 2019. The new land was rapidly colonized by a variety of flowering plants.

NOTE: participants on this field trip should have sunscreen, insect repellent and footwear appropriate for possibly wet areas, such as sneakers or boat shoes.

FT5 Rio Grande Nature Center State Park – Easy, 1-2 miles: tour of the native plants garden and access trail to the bosque and Rio Grande. Ponds at the visitor's center offer bird and turtle viewing.

FT6 Sandia Mountain Natural History Education Center – Easy, 1 mile: orientation and tour of the environmental education facility in Cibola National Forest, east side of the Sandia Mountains, visited by classes from Albuquerque Public Schools and other groups, followed by a flower walk of the grounds and a short trail to an overlook of the East Mountain setting.

FT 7 Sandia Mountains (west) foothills, with the best location chosen upon assessing actual conditions that week. Easy/Moderate, 1.5-3 miles depending on participants desires and route chosen. Easily accessed from Tramway Blvd., some modest uphill walking reveals a diversity of high desert flora grading into piñon-juniper and wonderful views.

FT 8 Sandia Mountains, (east): Cienega TH: Moderate, 3-miles: access to parking area on left side of Sandia Crest Road (Hwy 236); trail through a meadow and woods from a picnic area and a gradual climb along a dry, wooded creek.

NOTE: Parking accessed from the Sandia Crest Road (Hwy 236) requires a Digital Day Pass, Interagency Recreation Pass or Golden Age Pass [for information, see: <https://www.fs.usda.gov/main/cibola/passes-permits/recreation>].

FT 9 UNM Herbarium – Easy, less than 1 mile (from parking area). Limit: 15
Tour of New Mexico's largest herbarium at the Museum of Southwest Biology, 302 Yale Blvd NE, CERIA Building (Bldg. 83).

*FT 10 Yerba Mansa Project area (bosque from Tingley Beach) - Easy, one mile (or less): a leisurely stroll in the Project's restoration site in a wildlife management area near Tingley Beach discussing and examining medicinal and edible plants with a central focus on community-based stewardship in the Rio Grande bosque.

Workshop 1: 9:00-11:30 UNM Continuing Ed Building – FULL

Design for Wildlife: How to Create your Refuge, Leader: Judith Phillips. Limit: 8
How do you design spaces that are appealing to both wildlife and the people who live there? We'll walk through the basic steps in creating habitat either from a blank slate/no landscape or within existing gardens. Registered participants will receive resources in advance by email for preparation needed to get the most from the workshop.

Workshop 2: 9:30-11:30 UNM Continuing Ed Building, SW patio

Seed Paper, Leader: Hollis Moore. Limit: 8

The seed paper workshop teaches participants how to make sheets of recycled paper embedded with native seeds. Not only are the seed papers beautiful living artworks, but they also make an excellent mulch for germinating seeds. Materials Fee: \$10

Workshop 3: 9-10:30, UNM Continuing Ed Building

The Edible Prickly Pear, Leaders: Penny and Gary Hoe. Limit: 15

The *Opuntia* cacti commonly called “prickly pears” are a versatile, nourishing, and tasty source of food. But how do you get past their formidable spiny defenses to prepare fruits or pads for eating? What nutrients does the prickly pear provide? How can the fruits, the juice, and the pads be used in a variety of recipes? Steps, utensils useful in harvesting and preparation, and recipes will be shared.

Workshop 4: 9-11:30 Breezeway, UNM Continuing Ed Building

Growing cacti from seed, Leader: Ralph Peters

Germinating and rearing cacti from seed is a satisfying way to reduce depletion of these fascinating native plants in the wild and to obtain species that are not always available commercially. The A to Z of the hobby, with a demonstration, practice, materials, and methods.

Saturday Afternoon

12-1:15 Lunch on site at UNM Continuing Education Building

1:15-2:15 **Diné Bih Nanise**, Saturday Keynote Speaker, Arnold Clifford

A discussion of Navajo plants, uses, philosophy and flora as it relates to Land Ethics for the 7th Generation. The Navajo outlook on native flora encompasses how the Holy People and their interactions with early Navajos brought about their understanding of the multiple uses of plants. This will include a brief account of the esoteric stories relating to plants, Holy People, and the Navajo people. The Navajo Flora project will also be discussed, including Arnold’s approach to the flora, field collecting, and the discovery of several new species on the Navajo Indian Reservation.

2:15-3:00 **The Trifecta Crisis and Natural Climate Solutions**, A. T. Cole.

We live in the most important moment in human history. Climate temperature, species extinction and soil loss/depletion are at all-time highs. Survival requires atmospheric carbon dioxide be drawn down from the current 417 parts per million (ppm) to 350 ppm and there are 21 natural climate solutions that can accomplish it. The habitat restoration we’re doing on the Pitchfork Ranch is one of those ways.

3:00-3:45 **How to Love a Mesquite**, Hollis Moore

This talk examines how landscape designers, alongside transdisciplinary collaborators, may facilitate multi-species collaboration between diverse actants: human and non-human, including fungi, plants, animals, bacteria, and infrastructure to rehabilitate landscapes experiencing irreversible change or degradation. Looking at honey mesquite, *Prosopis glandulosa*, as a regional case study.

3:45-4:00 Break- Silent Auction closes at 4:00

4:00-4:45 **Ecology of Sandia HS Pond and Teaching It Forward**, Jason Roback
Presents the challenges involved when designing and maintaining an outdoor classroom while trying to find the balance between two sometimes seemingly opposing goals; creating a functioning ecosystem that accurately represents the amazing biodiversity New Mexico has to offer, and at the same time making a student-friendly/"resistant" area. How can you create a space to get kids outside and engaged in the natural world that doesn't get severely degraded by that very usage?

4:45-4:55 Closing Remarks, Tom Stewart

5:00-5:30 Pick up silent auction items

6:30 pm Evening banquet- Indian Pueblo Cultural Center Silver and Turquoise Rooms with banquet speaker, Laura Paskus

Sunday, August 7

*FT11 Sandia High School, 7801 Candelaria Rd, NE, Albuquerque- Easy. Limit: 20.
Tour the pond and greenhouse at Sandia High School and view the many species of native plants that Jason has collected and planted and the creatures that call it home.

FT 12 Sandia Mountains (east) Field Trip - Easy/Moderate circa 3 miles rt. NOTE: these trips are at elevations up to 10,600 feet; persons with breathing problems may find them difficult regardless of terrain. Trails are Conifer to Spruce-Fir-Aspen forests and high elevation meadows. We will select from the best alternative destinations. Lunches and raingear are recommended because mountain field trips may last beyond noontime when thunderclouds develop. If there are signs of an impending storm, the field trip will be terminated.

More challenging option:

FT 13 Crest Trail to North Sandia Peak - Moderate, 4 miles, 10,200 - 10,600 ft. elevation: starting from the Crest House parking lot at the end of Hwy 236, heading north on the Crest Trail to a short spur trail leading to North Peak, then returning. There should be many flowers, a medallion tree, and possibly migrating ladybugs as well as outstanding views. Bring a lunch.

Trips Heading East/South:

FT 14 Manzanita Mountains woodland - Easy to moderate, ca. 2-4 miles: the Manzanita Mountains are generally low wooded hills with some meadow areas and dry ravines, south

of Tijeras, about 45 minutes from Albuquerque. Limit: 10 The best location for the trip will be chosen upon assessing actual conditions that week.

Heading North:

FT 15 Las Huertas Creek, Placitas, NM – Easy, 1-2 miles: stopping at places along the only flowing stream in the Sandia Mountains, ending at a picnic area. NOTE: This field trip will meet at Placitas, NM Post Office; an SUV or high-clearance vehicle is required for the final portion of a very rough road. Limit 10.

FT 16 Pueblo of Santa Ana bosque restoration – Easy, 1-2 miles: featuring oral presentation by Santa Ana Restoration Division manager, Nathan Schroeder, and tour of the Rio Grande bosque highlighting some of the Pueblo's past ecological projects; techniques used in management of tribal resources, and challenges for the future.

Heading Northwest:

FT 17 Ojito Wilderness – Seismosaurus Trail - Easy / moderate, 2.5 miles: The Ojito Wilderness features expansive views of dramatic mesas and dry grasslands incised by arroyos. It is accessed from Cabezon Road (a rough dirt road, but suitable for sedans), just east of San Ysidro, NM. We might spot petroglyphs or reptiles and stop to have lunch. NOTE: this field trip will meet at the Home Depot on Hwy 550 west of Bernalillo, NM (in the northwest corner of the parking lot) at 9:00 AM.

Heading South:

FT 18 Manzano Mountains: Red Canyon – Moderate, 2-3 miles: about 1.5-hour drive from Albuquerque, southwest from the village of Manzano (road continues to Mountainair for those headed south). Several habitats on the lower portion of the mostly wooded Red Canyon Trail. Besides flower observations, this trip will include a discussion of the geology of the Manzano Mountains and rocks along the trail.

~~FT 19 San Lorenzo Canyon – Moderate, ca. 3 miles: unique desert canyon about 60 miles south of Albuquerque off I-25, on the southern boundary of Sevilleta NWR. NOTE: the unpaved road that approaches the canyon (3.4 miles) includes a sandy wash best suited to SUV and 4-wheel drive vehicles. Entrance to the canyon requires a short scramble around a massive boulder. The canyon itself has picturesque rock formations and usually a couple of small seeps. Wildflowers may be observed along the approach to the canyon and within the canyon itself.~~

~~FT 20 Whitfield Wildlife Conservation Area, Belen, NM (40 minutes south of Albuquerque) – **Cancellation Pending**~~

~~Easy, ca. 2 miles: perimeter loop with some side detours on flat former pastures and wet meadows; the site also features a pond that attracts birds and a cactus garden.~~

~~<https://www.valenciaswcd.org/whitfield-wildlife-conservation-area/>~~

Workshop 5: 10-12:00, Growing Awareness Urban Farm - FULL

Successful Germination of Native Plants, Leader: Peggy Wells Limit: 10

This workshop will offer a presentation explaining how some native plants increase their survival rates by delaying germination. Then, participants may practice some of the treatments that growers use to encourage these “difficult” seeds to sprout. Supplies provided. Location map will be provided to participants.

***Workshop 6: 9-12:00, Private Medicine Garden near Pueblo Cultural Center**

(address/directions provided to participants)

Herbal Essentials, Leader: Dara Saville Limit: 10 - **FULL**

This is a hands-on workshop to engage the senses in herbal food, beverages, and medicine. We will explore a wide variety of ways to prepare herbs for pleasure, nutritive, and healing applications. Depending on what plants are available at the time of class, possible recipes include: juniper infused massage oil, yarrow and plantain salve, yerba mansa tincture, artemisia and snakeweed liniment, elderberry rosehip cardamom syrup and sumac-ade, and herbal no-bake cookies. We will process the plant material, make the recipes, and sample our creations together on the shaded patio in my medicine garden. Participants will take home samples of all the products that we do not consume during class.

Note: \$25 Pre-Paid Materials Fee Required Per Participant. Prepayment instructions will be provided on acceptance into workshop.