



Empowering Education and Preserving Heritage: NRGNHA's Commitment to Northern New Mexico

Courtesy of The Northern Río Grande National Heritage Area (NRGNHA)

The Northern Río Grande National Heritage Area (NRGNHA) is thrilled to support PEEC's Los Luceros Summer Camp for 1st-3rd graders through the donation of ten scholarships! Our partnership highlights a dedication to fostering educational opportunities and cultural awareness among young learners in Northern New Mexico.

Established by Congress in 2006, the NRGNHA encompasses the diverse cultural landscapes of Rio Arriba, Taos, and Santa Fe counties. Our mission is to preserve, promote, and protect the varied traditions and artistic heritage that define this region. By integrating historic preservation with contemporary community engagement, we're able to ensure that the profound legacies of our ancestors continue to enrich our future and future generations.

Community Engagement and Educational Outreach

NRGNHA is actively involved in numerous projects that resonate with PEEC's core objectives. Our efforts to connect with the community through educational workshops, cultural festivals, and collaborative arts initiatives have been highly successful in educating and instilling a deep appreciation for the cultural and natural resources unique to Northern New Mexico.

One of our exciting upcoming projects is the Cultures & Creators Visual Arts Festival, happening September 13th - 22nd, 2024. This festival celebrates the artistic spirit of Northern New Mexico, featuring art, music, and traditional crafts that showcase the ingenuity of our communities. Events like these are vital as they provide a platform for local artists and makers to gain recognition while fostering economic development within rural areas.

Additionally, a variety of workshops can be offered throughout the year: traditional artistic crafts such as retablo and fresco painting, herbal remedies, adobe making, straw appliqué, and the building of hornos. These are all valuable skills, but most of all they preserve our culture and sustain our traditions by making sure that they are handed down through the generations.

Why Our Work Matters

The work of NRGNHA is crucial in maintaining the cultural continuity of Northern New Mexico. Our efforts help empower our region's cultural practices, support its economies, and educate its youth. We foster an environment where traditional arts and practices thrive alongside modern innovations and contribute to the vibrant tapestry of our community's heritage.

As we continue to host enriching projects, we invite you, the community, to join us. Your involvement is vital to the success of a future where our past is remembered and our history becomes a living, thriving part of our everyday lives. 🌱



Crazy Ants Ant Hills.
Photo Credit: Jennifer Macke.

Are Ants Really Crazy?

By Jennifer Macke, PEEC Volunteer

While you may be familiar with some of New Mexico's larger and better-known ant species, such as Carpenter Ants and Harvester Ants, Crazy Ants are smaller and less noticeable. But once you learn to identify their ant hills, you will see them everywhere.

What are they? Crazy Ants are small, dark brown ants. They live in dry, sunny climates, particularly in disturbed soil and habitats with minimal vegetation. Their range extends throughout the Southwest U.S., through Central America, and into South America. They forage on plant nectar, as well as the carcasses of animals, both invertebrates and vertebrates. They are not considered a pest species, so you won't find them invading your home.

Where are they? Around Los Alamos, there are two common places you are likely to see Crazy Ants. One of these is between the cracks in sidewalks. If you see a small mound rising from a sidewalk crack, this is likely to be a colony of Crazy Ants. They build crater-like mounds, about 4 inches in diameter, often occurring in groups with many similar hills nearby.

The second location where you are likely to find Crazy Ant colonies is around the periphery of Harvester Ant hills. Harvester Ants build big, obvious, round mounds covered with uniformly-sized pebbles. The Crazy Ants and Harvester Ants seem to coexist, and Crazy Ants often build groups of small hills right around the Harvester mounds.

Crazy?! It's right there in their scientific name, *Dorymyrmex insanus*. Crazy Ants have the distinction of being one of only a few species named for their behavior. When they find food, or when disturbed, they swarm quickly and frantically. You can see this behavior in the wild by blowing gently on their mound and watching them run around. When you see Crazy Ant hills in sidewalks, you may see an obvious trail of ants, swarming quickly between the hill and a nearby food source.

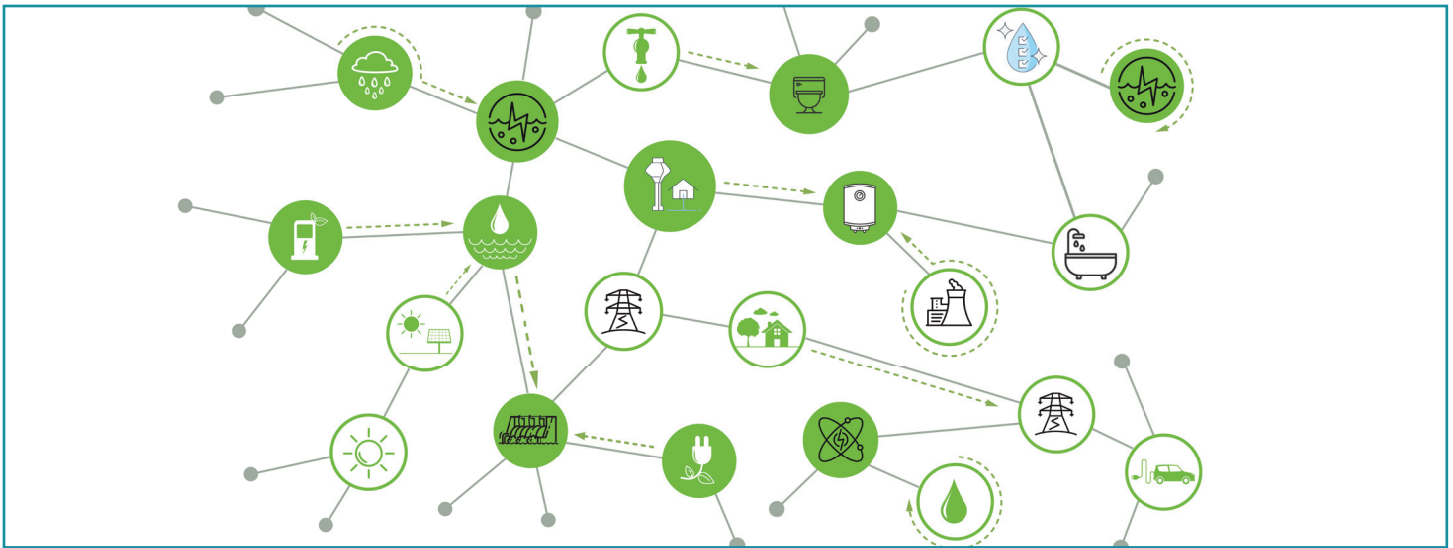
Come see! At PEEC, we recently created a new exhibit featuring a colony of Crazy Ants. If you look closely, you can see ant eggs and larvae in all stages of development being tended by active little worker ants. The queen is rarely visible, but she is doing her job, producing lots of new eggs. Stop by the nature center and have a look! 🐜

Book Review: Fresh Banana Leaves

By Ed Santiago, PEEC Volunteer

"Then, when you know better, do better." Commonly attributed to Maya Angelou, the sentiment is as old as humanity itself and a pretty sweet way to describe our million-year story. For the past few hundred years the best tool for learning has been science, as members of a Los Alamos-based environmental center will likely understand, and the most valuable aspect of the scientific method is its ability to self-correct. In *Fresh Banana Leaves: Healing Indigenous Landscapes Through Indigenous Science*, author Jessica Hernandez, PhD, offers arguments for one such correction: greater consideration of Indigenous Ways of Knowing in ecological research. This is not a controversial position in 2024, as we know from reading *Braiding Sweetgrass*, so Hernandez has momentum on her side.

Fresh Banana Leaves offers a number of measures toward this goal. What I found most valuable was a list of six principles, grouped under what Hernandez calls Community-Based Participatory Research (CBPR), essentially guidelines for researchers directly involved in projects where Indigenous peoples have--or should have--a say. The list is succinct, insightful, and respectful. I also learned from and appreciated other aspects of this multifaceted book: memoir, history of twentieth-century Central America, current events, ethnography.



Water-Energy Nexus Display.

Graphic Provided by: Abbey Hayward, Water & Energy Conservation Coordinator / Los Alamos Department of Public Utilities.

Hernandez snipes a few times at stodgy professors dismissing her for simply mentioning traditional lore with no citations or references. In contrast, she makes sure students in her courses feel "welcomed and acknowledged." I find myself somewhere in between: science is much more than just papers in journals, but you can't get a free pass simply by claiming Indigenous Ways of Knowledge. I found the overall slant of the book uncomfortably toward the latter: a little too much handwaving and vagueness for my taste, too much labeling of sites and rites and ideas as "sacred" in a way that suggested "you can't even question this": literally the opposite of scientific inquiry.

The tone is often combative and soapboxy, which is understandable given her background but often detracts from her main points. And the editing is poor, to the extent that I briefly switched to reviewing my backup book instead. I switched back because, despite my grumpy-old-man whining, my mind keeps churning over the better aspects of the book. It's not the best book I can envision on the topic, but like mass transit and elections it's an option we have right now that gets us closer to where we need to be. This is, on the whole, material worth studying.

One takeaway I can stand 100% behind is this sentence near the end: "We need to stop reframing this narrative that Indigenous peoples need their stories told *for* them, instead having their stories told *by* them." In other words, my job is to bring this book to your attention, then stand aside and let Hernandez speak. A few flaws aside, I hope you'll give this book your attention.

The One Los Alamos Book Club meets every other month at the Los Alamos Nature Center. 📍

Water-Energy Nexus at The Los Alamos Department of Public Utilities

By Abbey Hayward, DPU Water & Energy Conservation Coordinator

Utilities make a huge impact on our environment—there's no denying it. The demands on resources and the needs of infrastructure are just the broad strokes. From there, we could depress ourselves with the details about the impacts of mining and extracting water, mineral and site resources. Let's dive deeper down that rabbit hole and highlight the cradle-to-grave problem of the materials needed for utilities and for all of the "things" that use products of utilities.

The Water-Energy Nexus, the close relationship between water and energy, explains that the impact isn't just a water OR energy problem. Our current utility systems can't operate one without the other. In its simplest form, energy is used to pump water and water is used to cool some part of most generation stations. Let's hit this concept home with a little math. For every foot water is lifted through a well, the energy requirement increases. We are pumping water from a depth of a thousand feet in some wells! How much energy are we using just to have water to drink, let alone to bathe, clean, and landscape?

Here at DPU, we are trying our best to be responsible with our impact within the current limitations of our systems' capabilities and existing technology. Pursuing utility-scale clean/green/renewable power will enable all of our customers equitable access to cleaner power.

As we exit our coal-generation contracts, we are obligated (as we should be) to remediate those sites with our partners. We can only encourage—as opposed to enforce—water conservation practices for mindful water use which should reduce the rate of water table depletion.

Even as we continue to do what we can, the impact of new utility projects will be unavoidable. From remediating outdated plants to constructing new generating stations and their necessary transmission lines to sourcing materials for localized systems, the impact will be there. That is the price we pay to survive as humans on the scale that we do. Society today still needs water, still needs power, still needs heat, and ever more, still needs cooled air. 🌱

Gardening for Wildlife and Habitat Scavenger Hunt

By Michele Altherr

In 2016, Los Alamos became a National Wildlife Federation Certified Community Wildlife Habitat thanks to participation of the community. Residents around the county improved their outdoor space with an eye toward the needs of wildlife and completed a simple online National Wildlife Foundation (NWF) form to certify their space.

Today we have 240 NWF Certified Wildlife Habitats ranging from homes and workplaces to schools, parks, and places of worship. You are encouraged to join us in the effort to restore vital habitats for wildlife. First, assess your outdoor space and add any missing components needed for wildlife to thrive. The five components include: 1. food sources, 2. water sources, 3. cover, 4. places to raise young, and 5. sustainable practices. For ideas and certification, visit (<https://www.nwf.org/garden>).

When assessing your outdoor space, consider creating a habitat scavenger hunt to involve the kids! The experience of a hunt will provide a fresh perspective on their outdoor space. They'll discover that nature is a home for diverse wildlife. Children may think of their own needs and then wonder - What do animals eat? Where do they find cover in a storm? Where do they raise their young?



As the adult on the scavenger hunt, try aiding your child's discoveries by being their guide. Encourage the child to use their senses of sight, smell, and hearing. Help your child



Pollinator Bee on Pussy Willow Bloom.
Photo Credit: Selvi Viswanathan.

focus their attention with questions or by pointing out something interesting. Share your impressions, thoughts and feelings with each other. Save the facts for later. Your child will feel like they are helping to make a difference when you commit to wildlife by certifying your yard. Enjoy the experience! Scan the QR code for the NWF checklist. 🌱

Getting Started with iNaturalist

By Craig Martin, Jemez Mountains Herbarium

Birds, butterflies, and wildflowers are all colorful, showy organisms that easily attract our attention. We organize ourselves into groups that specialize in observing, recording, and studying how these attractive life forms fit into the ecosystems where we live. But equally important, and often overlooked, are the smaller, less easily observed insects, many of whom have important ecosystem functions that include pollinating our native plants.

In addition to butterflies, moths, hummingbirds, and bats, our smaller insects, particularly bees and some types of flies, are the most efficient agents of pollination for the 1,300 species of plants we know about in the Jemez Mountains. Because there has been very little money for researching these small, native pollinators, we really don't know that much about them: who they are, how many there are of each, what habitats they are thriving in, and which they are absent from. We also don't know much about which plants they use and what the status of those plants are in terms of being viable, threatened, or endangered. Because of the lack of funding to conduct this important research, Citizen Science is critical because it allows us to gather vital information at little to no cost, and on a very broad scale.

To help fill the gap on the Pajarito Plateau, PEEC and Bee City Los Alamos have created an iNaturalist project designed to create an inventory of pollinators and native plants in Los Alamos County. An iNaturalist project is simply a method of crowd-sourcing and collecting observations of plants and animals in a specific area and organizing them into a visual database that allows open access to anyone who uses the free iNaturalist app on their phone and/or computer or tablet. The project began on Earth Day and so far has assembled 1,115 observations of 315 species by 62 observers. Seventy-six of the observations are of pollinators.

While the Jemez Mountain Herbarium has a pretty good handle on the plant species of Los Alamos County, not much work has been done on pollinators. This project hopes to record bees, butterflies, moths, flies, and other insects and birds that visit flowers throughout the growing season. It will also provide a day-to-day list of what is blooming in Los Alamos, in real time.

An observation in iNaturalist mainly consists of a photo of the organism being observed--usually a phone photo and the attached GPS coordinates. If you know what it is, or think you have a pretty good idea, then you can identify the organism. If you have no idea or are unsure, you can let iNaturalist take a guess on the ID, or another iNaturalist user will chime in with an ID.

If you already use iNaturalist, then your observations from within Los Alamos will automatically be included in the project--no need to do anything special. If you are interested in participating but don't know how to use iNaturalist, you will have to set up a free iNaturalist account, which is easiest to do on a computer—then you can download the app onto your phone. 📱

The Believer

By Lauren Camp, New Mexico Poet Laureate

*There is a time of night soft enough to call joy. Comet cluster, the wind
a wishbone, no one else.*

*I wake to see the sky adore its shifting.
My journey could be explained as kissing the rocks, setting*

*a table for silence. Symmetrical mules. I am a whole
room of creaking and flooding.*

*Not every star shines in front of me. Time grows
from stout edge into a sequence of coppers*

*enlightened by a slight circle of birds. For hours, elk haunches
eased in shrubbery. At the start it terrified me*

*to be so open to a black hole. But now I know what is
necessary: the far end of lavish.*

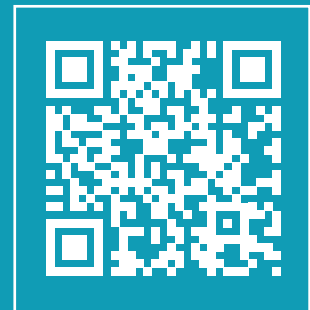
From *In Old Sky* (Grand Canyon Conservancy, 2024). 📱

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Lessons from Mother Nature's Garden

By Natali Steinberg, PEEC Volunteer

At PEEC we have three raised bed gardens from which visitors can gain inspiration. Two of them, the Pollinator Garden and the Drought Tolerant Home Garden, require continual attention - weeding, pruning, deadheading, replacement of plants that didn't survive the winter, etc. However, bed number three, the Native Garden, has been a joy because it requires almost no work and maintains itself. I like to call it "Mother Nature's Garden." With the exception of the tall yellow currant, every other plant in the bed was either grown from seed gathered while hiking local trails in the fall, moved here from PEEC's original site, or planted by Mother Nature. The bed maintains itself at almost no cost with almost no labor required.

While PEEC's lovely building was being built, the grounds were totally barren, with the exception of the Ponderosa Pines. Once the plants in the native bed took hold and began to set seed, Mother Nature and her helpers (birds, wind, rodents) began to transfer native seed to the rock drain and the slope in back of the parking area. In addition, her helpers brought in seeds of new plants to the native

bed. The Apache Plume and Yucca shrubs mysteriously appeared as did an Indian Paintbrush. On the slope by the parking lot, we have a nascent Ponderosa Pine forest helping to hold the slope from erosion as well as some flowering plants from the native garden.

In our home and pollinator gardens, we pull weeds and grass from the empty spaces between plants and we prune and mulch in the fall to prepare for winter. By allowing the native bed to take care of itself, there are few empty spaces and mulching is automatic by letting dead blooms and branches fall on the soil rather than raking out dead material in a spring cleaning.

For those of us who are aging and have trouble maintaining our well planned gardens, I would highly recommend transitioning your gardens into native plants and allowing nature to take its course. 🐾

Bear Dinner
Friday, August 23
6 PM - 8:30 PM

\$35/non-member
\$30/PEEC member

Bear Festival
Saturday, August 24
10 AM - 2 PM

FREE
visit peecnature.org/events
for more info



LOS ALAMOS NATURE CENTER
2600 CANYON RD, LOS ALAMOS, NM 87544

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Ryan Ramaker, Visitor Services Manager with Natali Steinberg, PEEC Volunteer.
Photo Credit: Jillian Rubio.

Volunteer. Nature needs YOU!

- Docents
- Bird Feeders
- Animal Caretakers
- Gardeners & More

Questions? Contact PEEC Visitor Services Manager, Ryan at ryan@peecnature.org or scan the QR code below.



Our Mission: Enriching people's lives by strengthening their connections to our canyons, mesas, mountains, and skies.

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"This center is fabulous. We loved it. [My] kids are under 7 and it was just right for all of them. Your kids will LOVE this place and they will learn so much..."

— Los Alamos Nature Center visitor

Nature center hours:

Monday: 10 – 4
Tuesday: Closed
Wednesday: 10 – 4
Thursday: 10 – 4
Friday: 10 – 4
Saturday: 10 – 4
Sunday: Closed

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Big Teddy Bear at PEEC's Bear Festival 2022.
Photo Credit: Teianna Mitchell.

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UPCOMING EVENTS

EV Show **JULY 13**

Bear Festival **AUGUST 24**

Roadside Geology of New Mexico **SEPTEMBER 19**

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