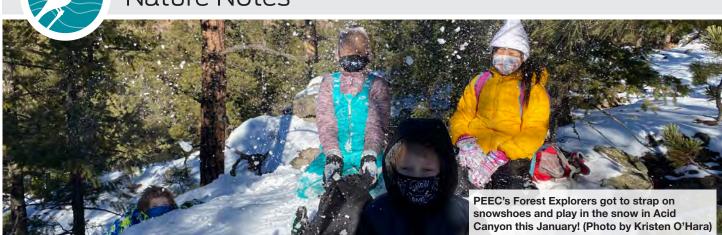
Nature Notes



VOLUME 21, NUMBER 2, SPRING 2021

PAJARITO ENVIRONMENTAL EDUCATION CENTER, LOS ALAMOS, NM

Taking Healthy Risks

By Katherine Bruell, Executive Director

Two things I've learned from the pandemic is how different people's ability or desire to tolerate risk is, and how important it is to respect these differences. From a 90-yearold volunteer who wanted to be working with others throughout the pandemic to a healthy 20-something who wanted to stay home and isolate as much as possible, people's varied risk tolerances were hard to predict but crucial to respect. The same dynamic is now playing out with vaccinations, with people having different feelings about receiving a shot.

While attitudes about risk came to the forefront during the pandemic, we consider them all the time at PEEC, especially during our outdoor programs. Adults often worry about young people engaging in risky behavior. PEEC hears from teachers who worry about children playing in nature (sticks in eyes is a favorite concern!). But research shows that getting young people outside teaches them to engage in healthy, not dangerous, risk-taking. Children and teens are curious and driven to challenge themselves outside and will naturally gravitate towards just-right, age- and ability-appropriate challenges. This is why spending time outside is so important for children's healthy development.

We often see healthy risk-taking in PEEC's programs. For example, Education Programs Director Siobhan Niklasson remembers a school program where "a four-year-old with developmental issues was just sitting and playing and not running around. Then she saw the other kids running around in the nature play area and wanted to try. Her mom



Programs like our Forest Explorers Club help kids experiment with taking healthy risks outside. (Photo by Ashleigh Lusher)

and teacher were clearly a little apprehensive, but they held her hand as she walked over the uneven ground, and she finally worked up to running across it herself. Her adults were so amazed and she got the best, proud smile on her face." That experience didn't happen anywhere else — it happened out in nature.

We're also exploring risk as we look at when and how to safely reopen the nature center. As you can imagine, there is a lot to consider, especially in our museum where so many of our exhibits depend on visitors touching the same items and buttons. Please know that we are working hard to open when the risk level is appropriate.

Thanks to nature, even the most risk-adverse among us have been able to socialize safely during the pandemic. And many young people have continued to work on developing healthy risk-taking behaviors by spending time in nature. I'm grateful every day to live near nature and to have a community of PEECers all doing their best to ensure that everyone gets that same access. Thank you!



Backyard composting kits will include a compost tumbler, kitchen countertop container, and lots of information on how to get started composting. (Graphic by Vint Miller)

Get Ready to Start Composting!

By Beth Cortright, Adventure Programs Manager

Have you wanted to get started composting at home, but don't know where to start or don't want a compost pile in your yard? Look no further! PEEC is working with our partners over at the Los Alamos County Environmental Services Department to bring a backyard composting program to our community. Starting this spring, Los Alamos residents will be able to request a FREE kit, which will include an awesome compost tumbler and convenient kitchen countertop container. Plus, we'll give you a brochure to show you the basics and a sticker and magnet to use as quick guides in your kitchen. This project was partially funded by a New Mexico Clean and Beautiful grant from Keep New Mexico True.

Why are we doing this? Food waste in landfills causes

big problems for the environment, like production of greenhouse gases (methane) that are contributing to climate change. Los Alamos County residents throw away over 1,300 pounds of food waste every year. Most of that waste could be sustainably disposed of in a backyard composting system AND give the household numerous benefits. You'll reduce bad odors from rotting foods in your trash and when the process is complete, you get a wonderful addition to your soil.

You can use "finished compost" in the garden or spread it around trees and lawns. Your plants will love it! They'll get lots of essential microorganisms and extra nutrients, which keeps plants healthy and disease-resistant, reducing the need for products like chemical fertilizers and pesticides. Adding compost also improves water retention of soil, so you'll use less water and help your plants during times of drought. Not to mention that the County will pay less in hauling and landfill fees (our trash travels 90 miles to a landfill near Albuquerque). Backyard composting reduces the environmental impacts of that whole process. It's a win-win!

Still unsure about starting your own compost? We're here to help! PEEC and County staff and volunteers are busy making video guides and creating website content to help answer your questions. We'll check in with participants to ask about your compost's progress so we can report to our funders, answer any questions about your new composting project, and thank you for helping to take care of the earth.

Ready to sign up? GREAT!! Backyard composting kits will start being distributed in April and are the perfect way to celebrate Earth Day month! Watch your email for more details and information on how to register. In this first round of the program, kits will be available for 280 households.



Families worked together to make a Gratitude Tree and reflect on what they were thankful for as a part of our November and December Naturalist Kit. (Photo by Natalie Melaschenko)

Naturalist Kits Keep Northern New Mexico Families in Tune with Nature

By Siobhan Niklasson, Education Programs Director

One of PEEC's most beloved offerings is our Nature Playtime program. Since 2008, we have run an outdoor, play-based learning program for preschoolers, toddlers, and their caregivers. Through developmentally appropriate exploration, young children learn about nature and science topics while building motor and social skills, developing habits of playing and learning outside, and nurturing an affinity for nature.



Children at a Nature Playtime session at the nature center before the pandemic. Our earliest Nature Playtime alumni are in high school now! (Photo by Denise Matthews)

When the pandemic hit, many of PEEC's programs went online. But online learning is a terrible solution for young children, who need more sensory input and opportunities to move their bodies and interact with people in real life.

After consulting with families, PEEC's Play-based Education Specialist, Denise Matthews, came up with our Nature Playtime Naturalist Kits. Denise says, "I wanted to create an at-home experience for families that would help connect participants with nature and also provide opportunities for nature-loving families to connect with each other during the pandemic."

The kits are designed to include activities that encourage families to spend time outside playing, learning, and observing in the natural world. The kits contain all the materials necessary to complete the different games, experiments, and crafts, along with a story or reference book that they can use all month and add to their permanent collection. This allows families to easily start the lessons without buying other materials or having prior knowledge of each theme.



Our monthly Naturalist Kits include a book, crafts, activities, games, and more for families to enjoy and use to learn about our monthly theme! (Photo by Siobhan Niklasson)

"As an educator, I am really excited about the opportunity the kits provide for the entire family to become involved in the learning experience, and to have recurring experiences in nature throughout the month," Denise says. "I believe this repeated exposure has a strong impact on the family's relationship to and understanding of nature."

In addition to the physical kits, we support families' learning in a variety of ways, including a weekly Zoom show and tell, where kids can share their adventures each week, get a chance to engage with our educators, and make new friends. We also have a private Facebook group where we can share videos and other content, and where families can connect around enjoying nature with children.



Topics we've explored include birds, fall, gratitude, snow and ice, geology, and animal tracks. April's kit focuses on Earth Day and sustainability. (Photo by Lauren McDaniel)

For many of us, the pandemic has curtailed our opportunities to see friends and family. It has been no different for PEEC! We went from hosting groups of schoolchildren from all over Northern New Mexico at the nature center to being able to see only a handful of students from our immediate geographic area. So the Naturalist Kits have provided a way for us to keep up our outreach to families and organizations in our larger community. To date, we have distributed over 150 naturalist kits to families in greater Northern New Mexico, through partnerships with libraries in Santa Clara Pueblo, Española, Dixon, and Jemez Pueblo, and the Abiquiùbased Northern Youth Project.

BE THE FIRST TO KNOW ABOUT OUR MONTHLY NATURE PLAYTIME NATURALIST KITS!

Email denise@peecnature.org to get on our Naturalist Kit email list. You'll be the first to know when registration opens!

NEW BLOGS FROM PEEC

Take a closer look at the wildlife and outdoors with two new blog series from PEEC!

Trails Blog by Craig Martin

Craig Martin's trail blog features a new trail on the Pajarito Plateau every week. Get tips on wayfinding and wildlife viewing and learn some local history in his new series. **Head to peecnature.org/**



category/trails/ to find his most recent posts.

New Mexico Butterflies Blog by Steve Cary



New Mexico butterfly expert Steve Cary has been working with PEEC to create a resource for learning about our state's butterflies since last summer. In addition to cataloging species

on a centralized site, Steve writes blog posts a few times a month about butterfly-watching adventures, butterfly biology, and local butterfly news. **Visit peecnature.org/butterflies-of-newmexico to find his project and blog posts.**

The Great Awakening

By Marilyn Lisowski

It's spring on our Pajarito Plateau. A male black bear yawns and slides himself slowly out of his small hole in the side of a canyon. As charming as an unmade bed, he pulls his rumpled body onto his paws, stretches, and looks around. As he ambles unsteadily downward to the canyon floor, a giant wave of hunger engulfs him. Food! He lumbers off, in search of anything edible. You should hope it's not your dog — do keep pets inside. The bear was not truly hibernating, though he can sleep for months. Occasionally, he woke up, then slept again.



A mother bear in her den with two cubs. New Mexico's black bears generally emerge from their dens between late March and early May. (Photo by Daryl Ratajczak)

Ground squirrels — everyone here has them — do truly hibernate the entire winter, for which we are all thankful. Some other mammals enter a lighter state of torpor. Their heart rate falls to fewer beats per minute, and body temperature drops. Mammals in torpor don't necessarily sleep the whole winter, just most of it. On warmer days, some mammals emerge, only to return when the thermometer plunges once again. Snakes bromate (grow lethargic) in a communal burrow, moving only to slurp moisture from the walls. Chipmunks typically enter torpor, only to wake up occasionally to nibble on grain they've cached and to take potty breaks.

In spring, however, creatures return to stay. Box turtles dig out from the ground or compost piles to bask in the sun. New Mexico Whiptail Lizards dart up from crannies and soak in heat on sunlit surfaces. Rattlesnakes drag their long bodies onto flat rocks and sunbathe motionless until solar-powered once again. Frogs clamber up from mud and splash into newly melted ice water. Some caterpillar chrysalises, frozen over winter, will thaw and burst open as butterflies, dry their wings and flutter away. Spiders that survived the winter's cold under logs, suck in the new warmth and spin webs to catch a meal. Famished ants, having eaten the food they stored last summer, emerge and march off in formation to forage.

Why don't humans hibernate? We are mammals, after all. Dial your time machine back 250,000 years. You're an early hominid, a pre-Neanderthal perhaps. You subsist gathering tubers and fruits. You attack and bring down fresh meat. No warm house, just a shelter, or cave. What would you do when the wind turned icy, and you began to shiver. Scientific research from a Spanish cave suggests you would descend into torpor, like other mammals. You might stuff yourself inside furs in a cave, with a snack of dried mastodon and a skin of water. Body functions would slow and you'd be fast asleep. Your body would live off the fat energy stored on your middle to keep you from turning to ice. You might awaken a few times, bite off a chunk of mastodon, slurp down some water, and sink back into sleep. When snow and ice melted, your temperature would surge, your heart would beat faster. You'd crawl out to greet the spring and gobble the rest of that mastodon bar.

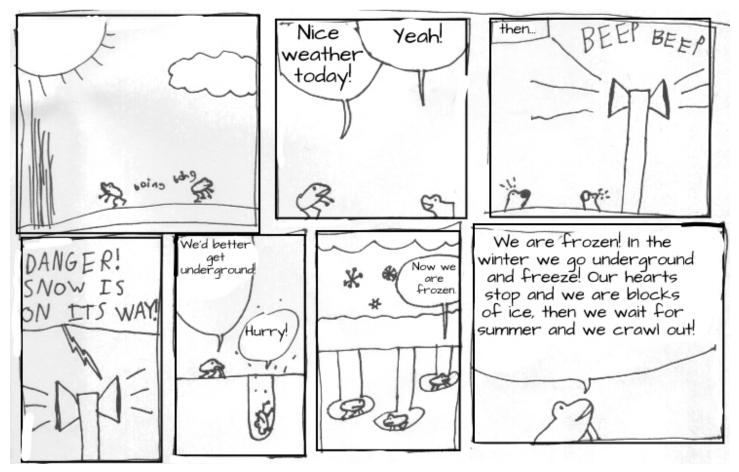
We know that later *Homo Sapiens*, when faced with coming sub-freezing cold, collected fruits, vegetables, and meat and dried them to survive on during the frozen days and nights to come. They did not go to sleep for the winter. Or they migrated to warmer climates. Other creatures that migrate do so for different reasons. Ask a gray whale why, each year, it makes the soggy, hazardous journey from Alaska to Baja California. It might sing to you of the travel from feeding grounds to breeding grounds. "What a silly question," it might think.



Western Tanagers are one of the most colorful birds that visits Northern New Mexico. The male here is enjoying a grape in the nature center's wildlife viewing area. Bring these birds to your yard with fruit or suet feeders. (Photo by Bob Walker)

Notable local migrators range from Black-chinned Hummingbirds to Western Tanagers. After a perilous flight south to escape bitter cold, they alight in invitingly warm, hospitable environments and feed. When the weather in paradise turns blistering hot in spring, off to the cooler north they go, to mate and raise their young on our Pajarito Plateau.

Listen for the trill of newly arrived hummingbirds, the rustle of lizards in pine needles, the hum of bees, and the scampering of chipmunks. Feel the surge of energy. Enjoy the rebirth of life on the Pajarito Plateau.



Want to know what Canyon Tree Frogs do when winter is on it's way? Find out in this comic! (Comic by Ian Price)



Ian (right) and his sister, Maya, releasing Zippy and Sandman the Canyon Tree Frogs! (Photo by Aimee Price)

Get To Know the Canyon Tree Frogs

By Ian Price

One summer when I was 4 years old, my mom, sister, and I hiked into a canyon and found tadpoles in a place where rainwater had collected. We caught a couple of them so we could observe them turning into frogs. We didn't know at the time what kind of frogs they were, but now we know they were Canyon Tree Frogs!

It took about two weeks for the tadpoles to turn into frogs. We soon found out how difficult it was to take care of the frogs. One time, my mom thought that one had died, so she put it in the trash can. The next morning she was taking out the trash and the frog jumped out of the trash bag! We decided to let the frogs back into the wild. We named them Zippy and Sandman. We took them to Water Canyon where there was a big mud puddle. We let them go and hoped they survived! Maybe the Canyon Tree Frogs at the nature center are distant relatives of Zippy and Sandman.

I interviewed PEEC volunteer Jenni, who helps care for

the Canyon Tree Frogs at the Los Alamos Nature Center, to find out more information about them. Here's what she had to say:

What do the frogs eat?

At the nature center, the frogs eat mostly crickets, and occasionally mealworms. The crickets are dusted every 1 to 2 weeks with vitamin and mineral powder. In the wild, they eat a much greater diversity of insects and spiders. Anything that moves and is the right size would probably be eaten — moths, grubs, beetles, etc.

Are they nocturnal? Do you ever hear them chirping at the nature center?

They are probably most active at night. Yes, we have heard them chirp at the nature center, usually in the late evening when people are rarely in the building.

Are they slimy?

Their back is dry and warty, but their belly side is slightly moist. When they climb the glass inside their tank, they leave some slime behind, so we have to clean the glass.

What do they do in the winter in the wild?

In winter they seek shelter below the frost line. They dig, or find holes, and stay buried.

Where did the frogs at the nature center come from?

There are several places I know around Los Alamos where they breed and I have found tadpoles. This happens during monsoon season. Until recently, there were two that we raised from tadpoles to adults. The larger of those two died recently, so now there is just one of those.

Ian and his family found this Canyon Tree Frog on the back door of the nature center last summer when stopping by to take care of the critters! (Photo by Aimee Price)

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

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Keeping the Community Connected

"I grew up in Los Alamos, but moved 6 months ago. I really appreciate that I can still keep close contact with Los Alamos happenings. THANK YOU!"

- Program Participant

Nature Center Hours:

The Los Alamos Nature Center is currently closed due to COVID-19. Visit us online to connect with us virtually and for updates on our re-opening.

Visit us online!

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The PEEC staff enjoyed a socially distanced hike and outdoor staff meeting on Deer Trap Mesa Trail on a warm day in January!

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UPCOMING EVENTS

Earth Month! ALL APRIL LONG!

The Birth of the Earth **APRIL 23**

The Life and Death of the Sun APRIL 30

Do you want to go green for your quarterly Nature Notes mailing? LET US KNOW!

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