



Nature Notes



We've recently released more monarchs at the nature center! Some of our visitors have been lucky enough to enjoy these special events.

Photo by Rachel Landman

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PAJARITO ENVIRONMENTAL EDUCATION CENTER, LOS ALAMOS, NM

20 Years of Celebrating Our Nature

By Katherine Bruell, Executive Director

If you had to guess how long PEEC has been around, what would you say? Maybe you remember going on a field trip with your child a few years ago. Maybe you remember when the nature center was housed in an old LAPS building on Orange Street. Maybe you remember back when there was no nature center, just PEEC and a dream of a building?

In 2020, it will have been 20 years since Rebecca Shankland, Chick and Yvonne Keller, Sarah Gustafson, Michele Altherr, Tom Jervis, Michael Smith, Claudia Lewis, and Gordon Spingler sat together and made the dream of a nature center for Los Alamos a reality. Since then, you have helped to grow PEEC into what it is today, and you've given so many children and adults the opportunity to get closer to our unique nature. You've done this through hands-on field trips on the trails for kids, through special outings about birds or geology or wild plants for adults, through the gift you've given Los Alamos in the amazing planetarium, and through your beautiful, showpiece nature center.

As part of the anniversary celebrations we're planning for next year, we'll be looking back at the accomplishments of the past and looking ahead to goals for the future. I've had the pleasure in the past few months of talking with some of our supporters to

PEEC 2020

Rooted in the earth,
Growing with the community,
Branching to the sky.

see what impact they'd like PEEC to have in the next 20 years. Responses ranged from flattering ("I'm not sure what you haven't accomplished already!") to comforting ("Paddle in place! You do so much already!") to idealistic ("Open a nature center in Española!"). I heard lots of great ideas to take back to the staff, both for specific programs (more hikes for older people! Develop an interpretive trail about the vertical mile of diversity! More comfortable planetarium chairs!) and general strategic direction (reach out more to our neighbors, do more to teach about climate change and how to protect the environment, protect the trails).

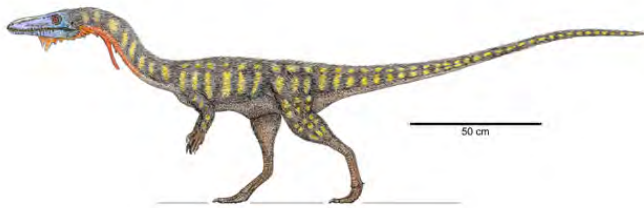
But don't worry that the anniversary celebrations will just be about talking and thinking. We have some special programming in the works, as well as a big party. And we'll be rolling out a campaign for you to become a monthly donor, if you aren't one already, by offering a special thank you gift. And Earth Day 2020, the actual anniversary of our first ever program,

promises to be exceptional, thanks to a grant from New Mexico Clean and Beautiful.

As we look at the past and future of PEEC and our PEEC community, we hope live up to our anniversary theme:

Rooted in the earth,
Growing with the community, and
Branching to the sky.

We're so glad you're on this journey with us. 🌱



Hundreds of Coelophysis skeletons have been discovered just 50 miles north of Los Alamos at Ghost Ranch. Illustration by Jeff Martz/NPS.

Oh, Give Me a Home ... Where *Coelophysis* Roams

By Marilyn Lisowski

Through a warm mist, 200 million years ago, *Coelophysis* (See-low-fy-sis) slunk silently through fern and low palms, listening, peering with large forward-facing eyes. Her long teeth glistened. She was hungry, and so were her babies.

Near a murky, reed-filled swamp, *Coelophysis* crouched on muscular hind legs. Her long tail twitched, her tiny forelegs quivered with excitement. Suddenly, she spied a croc-like creature at the water's edge laying eggs in the sand. She had to catch it. She paused, then sprinted, leapt, and pounced. The terrified amphibian darted into the reeds, and then vanished deep underwater where *Phytosaurus*, a giant croc, wouldn't bother it either.

Coelophysis could not swim. With a deep breath, she fell upon the eggs and scooped them into her oversized mouth with sharp teeth. She raced back to her nest, a depression in the mossy sponge of ground, hidden in palm fronds. Tiny miniatures of *Coelophysis* hungrily

devoured the new meal, scampering around the nest, squealing for more.

Like the later *T-Rex*, but no taller than a pony, *Coelophysis* stood on two rear legs, her spindly front arms good for grasping, but not for weight bearing. Her skin was covered in hairs, or, pre-feathers. *Coelophysis* would evolve into modern birds. Long and sleek, she streaked across the grassy plains of the Triassic age in search of meat. Any kind tasted just fine. Herding together with those like her, she drank from the meandering streams and swamps of these lowlands.

Did you think our home here on the Pajarito Plateau was always just like it is now? Turn on your imaginary time machine and dial it back 200 million years. Drop thousands of feet down! Where are the Jemez Mountains? They haven't happened. The inland seas? Millions of years to go yet. You're in Pangaea, six degrees north of the equator, a moist, subtropical land — a huge continent yet to break up into the parts we know today. Better hide! *Coelophysis* is looking for food.

One day, as *Coelophysis* strolled with her young near the stream's edge, black clouds surged up from the highlands to the north. A colossal, epic storm pummeled the land with copious rainfall. A gigantic torrent of water plunged southward and funneled into the plains. It engulfed lizard-like *Hesperosuchus*, the big croc *Phytosaurus*, and ancient fishes in its ravaging path. *Coelophysis*, her young, and her herd were drinking at a stream and froze in terror. The water slammed into them full force, hurling them downstream to a rock barrier where they drowned and sank to the bottom. The deluge cascaded over the rock outcrop and plunged downstream until it spread out and dissipated. *Coelophysis's* flesh decayed away. Sand covered her body. Stone replaced the hollows her bones left.

Encased in solid rock, *Coelophysis* could not experience the break up of Pangaea, the drift into the new continent of North America, repeated flooding of her lowland by an inland sea and its rise into high desert, or the explosion of the Jemez Volcano. She and her companions lay in blissful repose. Her species went extinct. Two hundred million years later, a bone was found near her resting place, but no one paid much attention for most of a century.

In 1947, George Whittaker poked around the same rock at what is now Ghost Ranch, New Mexico, disturbing

the ancient tranquility. He spotted a protruding vertebra, then an entire spine, and then a whole *Coelophysis* skeleton. Since then, paleontologists have painstakingly recovered a graveyard of *Coelophysis* hatchling, teenaged, and adult bones. More than 100 complete *Coelophysis* skeletons, along with *Hesperosuchus*, *Phytosaurus*, and other dinosaurs are still being lifted from blocks cut from the Triassic river bottom rock at Ghost Ranch.

Only fifty miles north of Los Alamos, you can hike to the quarry where paleontologists cut fossils in huge blocks from the rock and ferried them to museums all over the country. In Ghost Ranch's Museum of Paleontology, view a complete skeleton of *Coelophysis* (now the New Mexico state fossil) and dioramas of other dinosaurs. For a few precious hours, immerse yourself in *Coelophysis*'s world. Smell the humid air, the mosses, and the ferns. Fear the predators. Wonder what amazing discoveries await ... still buried in the rock. 🗺️



The author and her family enjoying some fall camping fun. (Photo courtesy of Karen Holmes)



Visit the Ghost Ranch Museum of Paleontology to see a complete Coelophysis skeleton! (Photo by Paul Lisowski)

Four Reasons Why Fall Camping Might Be the Best Thing You Do All Year

By Karen Holmes

www.southwestfamilyadventures.com

As the weather cools and the school routine sets in, camping gear often gets relegated to the back corners of the garage, hidden out of sight until the end of May. For many of us, camping is generally a summer thing. After all, who wants to sleep outside when it's 40 degrees and frosty in the morning?

But, if you're a family who cares about getting your kids outdoors, here are four reasons why fall camping might be the best thing you do all year:

1) It's unexpected. When you drag your kids out into the chilly autumn air to sleep on the hard, damp ground, you are really emphasizing that being in nature is important. In summer, there is a sense of obligation with camping — you have to take advantage of the weather and get outside, free time is limited, you need to make memories with your kids, and everyone else is doing it! You almost feel like a failure if you DON'T camp at least once. Camping in the summer makes a lot of sense. Fall camping on the other hand is very clearly a choice that will set you apart from the crowd. Fall is busy. There are sporting events and homework, house projects, and football games ... often the week is so full you need the weekend just to catch up with your day-to-day tasks! But that's exactly why you should go camping.

Fall camping tells your kids that getting out into the woods and away from the busyness of life is important. It tells them that you will set aside everything else to make it happen and that no matter how hectic your schedule gets it is good and necessary to take a break and head to the hills. Unlike summer, when you may feel compelled to go camping because it's "tradition," you camp in the fall because you know being under the stars is healing for your soul.

2) It's cozy. Just as summer invites you to stay up late, soaking in the sweet warmth of a July evening, and watching your kids run around forests bathed in a golden glow, fall invites you to snuggle in, bundle up,



Get out and camp this fall to enjoy a break from the busyness of life and get your family outside. (Photo courtesy of Karen Holmes)

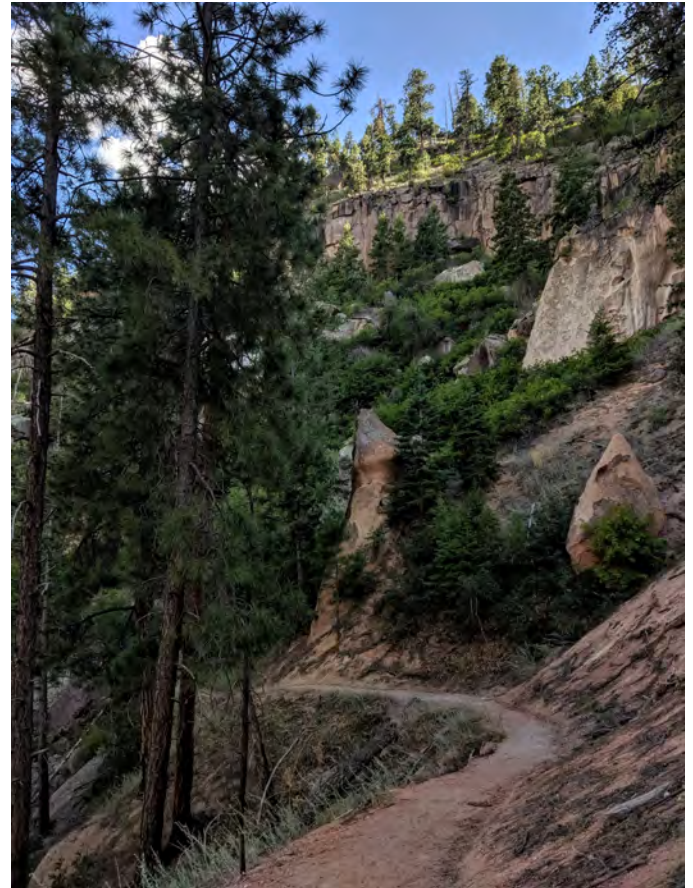
and breathe deep the earthy scent of fallen leaves and smoldering fires. I really don't think it gets much better than sitting around a campfire, tucked under a soft fleece blanket, holding a steaming mug of hot tea and enjoying the golden shimmering sequins of an aspen grove under a bluebird sky. Cooler nights and shorter days beg for early bedtimes and long lazy mornings. There is something about the crisp autumn air that makes me long for time to stretch itself out, to slow down, and when you're crunching through leaves and scrounging for firewood all day, time does just that.

3) It invites peace. Fall is full. When school starts, life kicks into high gear. There is suddenly new drama, new friendships, new homework, new expectations, new stresses for your kids — and, thus, for you. It's true that packing up for a weekend can feel like just one more thing on an already overloaded plate. And, it is. But, for a few brief days, you can offer yourself and your kids a respite from all that is required of you. By physically taking your family away, you provide an opportunity for everyone to relax from who they are expected to be, and just be who they are. It's not always smooth — you may see more outbursts and meltdowns — but it might be that your kids finally were able to release the tension that had been building for weeks. Camping can be hard, but maybe the days ahead will be easier because you gave them the gift of a peaceful place.

4) It's lazy. Summer camping is great but there is usually a need to make use of every moment. Hiking, rafting, climbing, swimming ... you must do all the things. Fall can be ideal for activities, too, but there's a welcome sense that it's also okay to just do nothing. An entire day can be spent searching for wood and maintaining a fire. Offering a steady supply of tea,

cocoa, and coffee is a legitimate occupation. While summer says "take the kids hiking," fall says, "they can play in the leaves." While summer says "you must get out and enjoy me!" — fall says "We are enough as we are."

Just the thought of fall camping creates a longing in my soul. October cannot get here soon enough. Will you join us in the great outdoors this season? 🌲



Stone Lions Trail through Upper Alamo Canyon is one of the trails that the Bandelier National Monument trail crew has been working on this year. (Photo courtesy of Kevin Stillman)

Explore Bandelier's New and Improved Backcountry Trails

By Kevin Stillman
Trails Work Leader, Bandelier National Monument

Now that the weather is starting to cool off, it is a good time to go out and hike Bandelier's backcountry trails. The trail work this summer has been focused on two main areas. The Bandelier Conservation Corps, which is comprised of local teenagers, worked on rebuilding the Upper Frijoles Canyon Trail. They



Upper Frijoles Canyon Trail offers great views of rock formations and will be beautiful to hike in the fall because of its stands of box elder, cottonwoods, and aspens. (Photo courtesy of Kevin Stillman)

finished about one mile of trail that starts at Upper Crossing in Frijoles Canyon and goes upstream. This trail offers spectacular views of the canyon walls and rock formations. There are thick stands of box elder, cottonwoods, and some aspens there that will make this a beautiful hike when the leaves change in autumn. This hike is an out and back that starts at Ponderosa Campground and is about 5 miles long.

The other ongoing project this year is working on the

Stone Lions Trail through Upper Alamo Canyon. This trail hasn't seen much maintenance in the last 8 years or so and was due for a little TLC from the Bandelier trail crew. The trail was mostly cleaned up with repairs to areas that had been subject to erosion. The trail was returned to some of its original location in the bottom of the canyon. This trail can be done as an out and back starting from Ponderosa Campground or can be part of a loop that starts at the Visitor Center and goes through Mid Alamo canyon, past Yapashi Pueblo and continues to Upper Alamo Canyon, down the Frijoles Rim Trail back to the Visitor Center. The out and back to the creek in Upper Alamo Canyon is about 10 miles or so. The loop is about 16 miles. Alamo is another beautiful canyon with tent rocks and wonderful views.

Bandelier visitors are required to ride a shuttle bus to the Visitor Center between the hours of 9 AM and 3 PM until October 16. Visitors can still drive their own vehicles to the Visitor Center before 9:00 AM and after 3:00 PM, so you can get an early start on a long hike. You can drive your vehicle out of the Monument at any time.

I hope you will come on out, see our hard work, and enjoy some great and uncrowded hiking in the Bandelier Wilderness. 🚶

Did you remember to take your IRA required minimum deduction this year?

There are stiff penalties for not taking your RMD. Did you know you can eliminate all taxes on your RMD and reduce your gross income by donating your RMD to PEEC?

Find out more by contacting your financial advisor or PEEC's Executive Director, Katie Bruell, at director@peecnature.org.



20 Ways to Celebrate 2020

We want you to get the most out of our 20th anniversary! Here are 20 ideas that will bring you to the nature center or get you outdoors to learn something new, improve our community, and celebrate the year.

1) Give Back: We always need volunteers! Join us for a trail workday, docent at the front desk, lead a walk, or help out in the gardens. We have volunteer jobs that match whatever your skills and interests might be!

2) Stamp Your Passport: If you haven't finished our Passports, 2020 is a great year to work on them. If you've finished or want another challenge, sign up for the Northern New Mexico Peak Challenge and summit seven of our state's iconic mountains!

3) Branch Out: Try something new this year! See how you like hiking, camping, backpacking, or birding by attending one of PEEC's adventure programs designed to introduce people to new outdoor hobbies.

4) Take a Closer Look: Stop by the nature center to meet our resident reptiles, look under our microscope, or explore all of the drawers at the nature center.

5) Nurture Nature: Pick up trash, plant a tree, start a garden, or certify your yard as a wildlife habitat this year to take care of our natural spaces and wildlife.

6) Look Up: Take in an astronomy talk or full-dome movie in our state-of-the-art planetarium. Or join us for our monthly Family Star Party!

7) Represent Us: Stop by the gift shop to get some PEEC swag and show off your part in our community.

8) Explore the Vertical Mile: The Pajarito Plateau has so much to offer. Try to experience as much natural diversity as you can!

9) Reduce Your Impact: Look for ways to reduce your footprint! See if you can reduce the amount of trash you produce, drive less, or start composting this year.

10) Share Your Journey: We love to see your adventures on the Pajarito Plateau and at the nature center! Tag us @peecnature on Facebook or Instagram.

11) Take a Trip: There is so much to explore just outside of Los Alamos County! Make a day out of a visit to Los Luceros Historic Site, Ghost Ranch, Tent Rocks, or



Head to the nature center and get outside with us next year for our 20th anniversary! (Photo by Rachel Landman)

another nearby location.

12) Learn Something New: Challenge yourself to identify 10 birds, plants, insects, or reptiles that are found on the Pajarito Plateau.

13) Bring a Friend: Bring someone to the nature center that has never been here before!

14) Expand Your Knowledge: Attend one of PEEC's monthly talks to hear from local experts about their research, projects, and the future of our natural spaces.

15) Foster the Next Generation: Help your kids or grandkids fall in love with nature! If you don't have kids, look into helping out with PEEC's education programs or joining groups like Big Brothers, Big Sisters.

16) Find Peace and Quiet Outdoors: Relax in the bird room or enjoy the view from the nature center, try out nature yoga, or go on our weekly Gentle Walks.

17) Make a Connection: Introduce yourself the next time you stop by the nature center! Our staff knows many of our members, volunteers, and donors, but we don't know all of you and would love to meet you!

18) Hike a New Trail: Explore a trail you've never been on in 2020! Or take someone on a new-to-them trail.

19) Create Art in Nature: Take a photograph; draw a picture; or make a collage of fallen leaves and sticks.

20) Celebrate Good Times, C'mon!: Stop by the Earth Day Festival or Bear Festival in 2020 and enjoy our biggest events of the year! 🌱

Los Alamos's Community Wildlife Habitat Certification is Renewed!

By Rachel Landman, Marketing Manager

Los Alamos has been certified as a Community Wildlife Habitat for the third year in a row! Our status was renewed by the National Wildlife Federation on June 26, 2019.

Community Wildlife Habitats are recognized for taking exceptional action to preserve, enhance, restore, and connect wildlife habitat while also communicating the importance of habitat stewardship to the public.

Community members that have certified their own yards as backyard wildlife habitats have been a major part of this project's success. As of now, 190 yards in Los Alamos are certified as backyard wildlife habitats. This year, we hope to pass the 200 mark!

"We are very excited about our community's support. Los Alamos residents value nature and wildlife because both add to the quality of life in Los Alamos," Michele Altherr and Selvi Viswanathan said. These two



individuals have led the charge to certify Los Alamos as a Community Wildlife Habitat and maintain that certification year after year.

If you'd like more information on backyard wildlife habitat certification, stop by the nature center on Saturdays from 2:30 to 4 PM to talk to our docent Selvi Viswanathan about converting your yard into a wildlife habitat. We also have a variety of resources available to pick up in the wildlife observation room. 📍

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

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Elizabeth Watts, Educator
Maegan Carter, Live Animal Curator

From Our Visitors

"This place is just enchanting. My daughter and I came last week and she's made me come every day since then."

— Nature Center Visitor

Nature Center Hours:

Monday: 10-4
Tuesday: 10-8
Wednesday: 10-4
Thursday: Closed
Friday: 10-4
Saturday: 10-4
Sunday: 1-4

Visit us online, too!

www.peecnature.org
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Leave us a review on Trip Advisor, Google, or Yelp



PEEC
Pajarito Environmental
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Over 750 of you stopped by the nature center for Bear Festival this year! This year's festival featured new activities like safety demonstrations, bear crafts, and a photo booth!

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FEATURED EVENTS

- Search and Rescue Dogs **OCT. 1**
- Peak Challenge: Jicarita Peak Hike **OCT. 12**
- PEEC-nic **OCT. 20**
- Leonora Curtin Wetland Tour **OCT. 26**
- Geology Tour of SW NM Calderas **NOV. 9 - 11**
- Wilderness First Aid Course **NOV. 23 - 24**
-