



## Nature Notes



Making peace flags at Earth Day Festival in April. She said, "I love the Earth this much: 1,000."

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PAJARITO ENVIRONMENTAL EDUCATION CENTER, LOS ALAMOS, NM

### More Kids in Nature, Thanks to You

By Katherine Bruell

The PEEC board's number one goal in our 2017 strategic plan was to reach out to the Española Valley. Every child deserves the chance to connect with nature, and, with your help, PEEC can be the bridge that makes this happen. But we can't apply a one-size-fits-all approach to this work. We need to build a strong foundation of trust and respect before we can move our work into a new community. You can ensure this happens.

PEEC has slowly started bringing students in the Valley the same high-quality, hands-on field science lessons Los Alamos teachers and students love. A new partnership program between Alcalde and Los Alamos first-grade classes has brought new friendships and new kinds of learning to each group. And we've been able to expand our beloved bird-banding program to classes from neighboring communities, as well.

Diane Chavarria is a fifth-grade teacher at Khapo Community School in Santa Clara Pueblo. She has been working with PEEC for about five years. This year her class focused on learning about bird species and participated in a bird-banding project at Bandelier with PEEC.

"The students were excited because they really became the scientists and had the opportunity to band

*Diane Chavarria's fifth-grade class exploring the birds of Bandelier with PEEC's Education Programs Director, Siobhan Niklasson. Photo by Diane Chavarria.*



some of the birds themselves," Diane said. "What I really like about PEEC is the level of engagement and that they have a hands-on approach to learning."

As a teacher, Diane focuses on project-based learning and encourages her students to learn by doing. Her students loved the activities they did with PEEC and Bandelier and wanted to know how they could help the birds of Santa Clara after helping the birds of Bandelier. Their curiosity grew into a much bigger class project and Diane's students built a bird feeder trail along the Bosque and developed a bird guide booklet that identifies the common birds of Santa Clara Pueblo using scientific information and the Tewa language.

Her class gave presentations to the Santa Clara community to share their expertise on local birds and a copy of their bird guide is now in the local library. Diane hopes that other teachers at her school and in the Valley can become more involved in hands-on activities through PEEC and other local resources.

"I tell other teachers about it to try to get more involvement, because I've seen the excitement that kids have when they participate and are able to bring their knowledge and interest back to the community," she said. "It really benefits the students along with the community."

Making connections like the one we have built with Diane takes time. Trust and relationships must be built slowly. Our role is to listen: What do our neighbors want? What do they need? How does PEEC fit in to these wants and needs?

But time means resources. And this is where you come in. We need your help. PEEC is raising \$25,000 for a half-time educator. This will allow us to travel to the Española Valley to meet people on the ground, to meet them where they are, and to begin to meet their needs. Would you consider a gift to PEEC to make this important work happen?

Visit [peechnature.org/valley](http://peechnature.org/valley) to make a donation to support our outreach and educational programs in the Valley. 🍷

"It was my great fortune to work in the Española Valley for many years as ENLACE (ENGaging LATino Communities for Education) Director at Northern New Mexico College. ENLACE was a national grant from Kellogg Foundation to enhance educational outcomes for Latino/Hispanic youth. After retiring from Northern in 2005, I began creating a joint youth leadership program with teens from the Valley and Los Alamos. Many of us adult leaders from both communities felt that the mutual animosity could be reduced by bringing our young people together as youth leaders and agents of change. It succeeded far beyond our expectations! The youth named their initiative JUNTOS (Joining and Understanding Now, Teens Overcome Separation). JUNTOS (which means "joining" or "coming together" in Spanish) ran from 2007-2012, involving hundreds of youth from both communities. Working with the Valley youth and adults was the best and most rewarding experience of my career and retirement!

Now PEEC has successfully begun a partnership with Española, educating the younger children through nature and bringing them together to share what they have learned. After hearing about this program from Katie, I am tremendously excited about the long-term benefits for both of our communities. PEEC's plan to build trusting relationships takes time and effort and money. She has a deep understanding of what it takes to create the trust, cooperation and respect needed for long-term success. This is a win-win opportunity that is sorely needed at this time in our world. I am financially supporting this initiative and ask you to join me. Thank you very much."



— Lori Heimdahl Gibson

## PEEC Pathfinders and Trailblazers Set a Course for August

By Beth Cortright

By the end of the summer, we will have successfully expanded our summer programs to include outdoor play-based day camps. For many years, parents have requested more weeks of PEEC camps throughout the summer. Thanks to our dedicated, growing education staff and support from the rest of the PEEC staff, we are starting PEEC Pathfinders for children in grades 1-3 and PEEC Trailblazers for children in grades 4-6.

Unlike Nature Odyssey, with its intense itinerary of activities and destinations, Pathfinders and Trailblazers will primarily offer nature-themed childcare focused on exploring the outdoors. But don't think that means campers won't have any fun! The groups will spend time here at the nature center and then head out to

explore our nearby canyons, mesas, and mountains. They'll build forts and fairy homes, observe wildlife and plants, create crafts, go on scavenger hunts, learn survival skills, and let their imaginations guide them through a world of discoveries in nature.

Child-directed nature play lets kids make important decisions and helps them grow into independent people. These could be decisions about taking risks, setting goals, or navigating social situations. We adults often overlook such seemingly small events. For example, something as simple as jumping from one rock to the next, climbing on a boulder, or carrying a log with friends involves essential physical movements and mental processes. Many studies have shown the importance of kids interacting with their physical environment, as it is necessary for healthy growth. We are excited to be a part of these children's relationship with nature and eager to see how outdoor experiences may ultimately guide their future life choices.





*PEEC is expanding its summer camp programs and our new end-of-summer camps PEEC Pathfinders and PEEC Trailblazers are starting this August! Photo by Beth Cortright.*

Our experienced educators are looking forward to this new program. Here's what they have to say about these new programs:

"I love watching their eyes light up when kids have time to be creative and explore nature," said Sandra West, who taught Nature Odyssey in past years. Sandra will be one of the educators teaching PEEC Pathfinders.

Jessica Miller remarked how "outdoor play encourages the use of all the senses, including a sense of wonder. I'm excited to help guide the children to experience nature in all its richness during these camps." Jessica also taught Nature Odyssey and was the assistant environmental educator for the Living Earth Adventure Program in June 2018. She will teach PEEC Trailblazers this August.

"Time outside to hike, explore, and experience true child-directed outdoor play is something all children should have. I can't wait to get out on the trail with kids this summer and witness their natural curiosity, love for new challenges, and ability to work together and make new friends," said Denise Matthews, PEEC's Play-Based Education Specialist, who will teach PEEC Pathfinders with Sandra.

It's no secret that PEEC's summer programs have a fantastic reputation. Our June programs quickly fill and always have waiting lists. Registration for the August programs is turning out to be the same. There are still a few spaces available, so sign up soon! 🌀



*Katherine Fanning (left) playing in the mud at Nature Odyssey camp in fourth grade. Photo provided by Katherine Fanning.*

## From Camper to Counselor: Growing Up with PEEC

By Katherine Fanning

PEEC has been a part of my life since the third grade when I started attending its Nature Odyssey camps. For four years I participated in both camps offered, where I created memories and grew to love the outdoors. Now I am happy to say that I am preparing for my second year as a counselor. Over my years involved with the camps I have seen the many ways PEEC is able to help our community's youth learn about the nature surrounding them. Ever since my beginnings in the camps, I have seen children and peers get engaged and excited with the outdoors. It is always nice to see kids of my generation and beyond put down their devices and take in some fresh air — PEEC is a great way to do so.

The nature center is staffed with so many great individuals who work hard to provide the best experience for all the camp's participants. I am privileged to now work beside them and watch as they prepare for their adventure-filled camps. Even as a counselor, I am still able to experience nature to the fullest through the camps and I anxiously wait for them to begin. As a child, I was excited to learn more about the outdoors; now, as a counselor, I am excited to work with the incoming kids and watch as they come to love the outdoors, just as I did. PEEC has always provided great opportunities for people to come to know and understand the world outside of four walls and I am thrilled to be a part of that. 🌀

# Desperation and the Mule Deer

By Marilyn Lisowski

Mule deer stroll across streets, graze in front yards, bound into canyons and into our hearts. We adore their grace, their beauty, and their dark, soulful eyes. Easy to distinguish from their more numerous cousins, the Eastern white-tailed deer, the larger mule deer sport huge ears and light brown coats with black tips on their white tails.

Buck mule deer rut in December and January, competing for females. Usually the older, larger fellows are the lucky ones, fathering more fawns than smaller males. Their antlers fall off after rutting and regrow for the next season.

A pregnant doe gives birth to one to two spotted fawns in warm weather after a gestation of about seven months. She hides her tiny fawns in vegetation, where they lie perfectly still, almost impossible to see, until she weans them and they lose their spots at four months of age.

You might see deer in pairs or small groups crouched in the shade, simply chewing. All deer are ruminants; that is, they chew their cud. Cud is partly digested food that returns from the stomach to the deer's mouth to be chewed once more. Their natural food — shrubs, leaves, twigs, and bark — is more easily digested when chewed twice.

In years of normal precipitation, deer remain in the woods, browsing contentedly on these favorite foods. In extreme drought conditions, however, they emerge to dine on the well-watered lawns, ornamental junipers, leafy plants, and flowers of our landscaping. They can be frightened off, “pronking” away on all fours at once as though jumping on a trampoline. It's no use, though — they sneak relentlessly back.

Some refuse to be frightened at all. I tried to shoo away three does and a buck stripping our aspen of bark in mid-January. They barely moved. I bellowed at a doe munching our beautiful columbine. She stared at me as though I were an alien fungal form, and returned to her lunch.

Wildfires have further reduced deer habitat. While elk feast on the new grass enabled by the loss of cover, mule deer prefer shrubs and leaves, which are helped only by prescribed burns that clear the ground for



*Mule deer look for a dinner invitation in the author's backyard.  
Photo by Marilyn Lisowski.*

growth of their favorite foods.

In the eastern US, multitudes of white-tailed deer, long without predators and short on food have abandoned their traditional way of life and moved in with residents. Burgeoning numbers now reside in suburbs and even urban areas and parks. Considered pests, they cause numerous automobile accidents on busy roads and freeways. Some deer have lived in cities for so many generations that they wouldn't know what to do if they were returned to the forest.

By 1900 the deer were hunted almost to extinction, and widespread bans were imposed to prohibit all deer hunting for some years. In spite of poaching, the numbers rebounded to about two-thirds the precolonial density by the 1940s and 1950s. But this trend has reversed, especially in the west.

Sightings of little mobs of mule deer may cause us to think their numbers are still increasing. Sadly, unlike white-tailed deer, they are on the decline. Since the 1970s, the mule deer population has decreased by 50% in the mountains of western United States, their historic home. The causes are cited as habitat fragmentation from increased oil and gas exploration, strip mining, predation, over-hunting, and dwindling food from drought. In the forests, crowding of remaining deer has wreaked havoc on vegetation in some areas, as they consume an overabundance of native plants and allow invasive species to flourish.

Under drought conditions and public and private encroachment, our western forests and mountains



cannot support as many mule deer as they did in precolonial times — or even 50 years ago. I now feel remorseful for building my house where these deer used to roam and browse. I want to arrange a platter of succulent columbine and invite them all to dinner. I might drag our unused ancient hot tub into the yard and fill it with fresh water. In the long run, however, that isn't the answer to saving the mule deer.

Whether they decline to numbers such that the mountain habitat can sustain them, or whether they become extinct due to drought brought about by global warming and by habitat destruction, mule deer as well as all deer species will continue in their desperation, seeking our vegetation and water, and declining in number even as they do so. 🦌

## Nature Education: From Shakespeare to 1948 and 2018

By Rebecca Shankland

Who invented the idea that nature teaches us profound life lessons?

Shakespeare? “One touch of nature makes the whole world kin.”

Wordsworth? “Come forth into the light of things, / Let Nature be your teacher.”

Perhaps the idea of nature education is as old as the hills (cliché intended), but it certainly has resurfaced with our current worry over children whose lives are dominated by electronic devices. Interaction with the world outdoors is different from interaction with a screen.

So I was fascinated to discover that my mother, Ruth Edgerton Hoge, had written an article in 1948 titled “Children’s Work and Play Experiences on a Playground” in a journal called *Childhood Education*. She was then director and teacher at a small progressive school in Bethesda, Maryland, called Green Acres School. Based on John Dewey’s idea of experiential education, the staff believed in the importance of extensive outdoor play.

Her article emphasizes, “the significance of spontaneous work and play that constantly evolves in children’s free play.” Besides the sun and shade,

grass, trees that can be climbed, and sturdy shrubs, the nature play area needs “some kind of playhouse or simple materials for creating a shelter — packing boxes, sawhorses, hollow blocks; a sandbox; a garden or digging place.”

My mother would be enchanted with the new Rotary-funded tree house at the nature center.

She was also fascinated by the way outdoor play gives kids a different way to interact than in the more regimented classroom. As children invent interactive games, they play various roles. My favorite story that she tells was how a group of children created a farm; they’d been studying farm life in the classroom, but here they took roles as farmers, farm families, farm workers, and animals.

One child became the farmer and organized the others until a couple of excluded children complained to the teacher. She intervened and explained that the farm equipment belonged to the school and thus to everyone. To be fair, they either needed to include the other children or else give them their share of the equipment. Reluctantly, the farmer agreed to accept them — one as the farmer’s little boy and the other as a chicken! The “chicken” was quite crestfallen, but soon organized a group of “hens” to join his group. Another charming detail was having the farmer’s wife declare that there was extra food and they should have a big dinner for everyone, including all the animals. My mother was impressed: “It was a gay party with the



Ruth Edgerton Hoge (far left) smiles alongside four generations of family members at age 99. Her daughter, Rebecca Shankland, is next to her. Photo provided by Rebecca Shankland.

animals cutting capers all over the place.”

So here's to outdoor free play with all its opportunities for creativity and social interaction. 🐾



*Penstemon palmeri* is one of the seed species that is now available for purchase in the gift shop at the nature center. Photo provided by Larry Deaven.

## Penstemon Seeds Now Available in the Gift Shop

By Larry Deaven

Last year we allowed most of the flowers in our penstemon gardens to mature into seedpods. When dry, these seedpods were harvested, and several PEEC volunteers separated the seeds from the dried plant stems and leaves. The cleaned seeds are now for sale in our gift shop at the nature center.

The first seeds available are five separate species (*grandiflorus* (War Axe strain), *pseudospectabilis*, *virgatus*, *palmeri*, and *cardinalis*) and packets of a mixture of seeds from at least ten species. These seeds are an opportunity for Los Alamos gardeners to have some of the same penstemons from the nature center gardens grow and bloom in their home gardens. Instructions on how to germinate the seeds will be given with each seed purchase. All proceeds from seed sales will be used to support PEEC programs. 🐾

## Bear Festival and Dinner to Focus on Education and Bear Safety

By Rachel Landman

For Kathleen Ramsay, the main purpose of the Bear Festival and the Eat Like a Bear Dinner is helping citizens of Los Alamos County and the surrounding area better understand how humans can protect and co-exist with our local bear population.

“The biggest problem with bears is education,” Kathleen said. “People just don’t have a clue what really is happening and how we as human beings are destroying the bear population by not understanding what we are doing to affect their population.”

The Bear Festival and dinner is now in its second year. The festival is coming up on Saturday, August 25, at the Los Alamos Nature Center, and the Eat Like a Bear Dinner is happening the evening before the festival.

Kathleen is one of seven members of the board of the Land of Enchantment Wildlife Foundation and is a veterinarian and owner of Cottonwood Vet Clinic and Cottonwood Rehab. She is coordinating this year’s Eat Like a Bear Dinner and said that every aspect of the meal will be educational and everything served will be something bears would also eat. At last year’s dinner she served sunflower seeds out of a bird feeder, insects, and had edible food in a trash can. One of the dinner’s highlights was the inclusion of real ants on a log! All of the food served was meant to shed light on what bears eat and how they can get food from people’s yards.

“Yards are our biggest issue,” Kathleen said. “People think the bear is dumb, but the bear is brilliant and once they discover food in any way, shape, or form, they’ve got it. So we can’t allow them to develop bad habits. Once the habit is there, they’re dead.”

Black Bears are predominantly vegetarian. They will eat meat in the form of dead or easy prey, but mostly munch on green matter, seeds, and insects. Bears are known for cleaning out bird feeders full of seeds, coming into yards to eat from fruit trees, getting into beehives to eat bee larvae, and rummaging through trash cans and dumpsters for food. During bear season, the staff at the nature center brings in the bird feeders every night to avoid attracting bears and other wildlife to the center.





Two of the bears that Kathleen Ramsay has rehabilitated at her facility, Cottonwood Rehab, in Española. Ramsay has been doing wildlife rehabilitation since 1981 and is coordinating the Eat Like a Bear Dinner happening at the Los Alamos Nature Center on August 24 this year. Photos provided by Land of Enchantment Wildlife Center.

Water is another issue that brings wildlife of all kinds into the county and yards. Bears, cougars, bobcats, and snakes are amongst those known coming into town to drink from backyard ponds, fountains, or even irrigation lines in gardens.

If you do see a bear in your yard, you should stay inside, ignore it, keep any dogs with you indoors, and watch the bear until it moves along.

“After they’ve left, figure out what it was in your

yard that was the attractant and remove it, because otherwise they’ll keep coming back for it,” Kathleen said.

This August, PEEC’s programming will focus on bear biology, safety, behavior, and more. Take a look at our programs calendar to find out more about what we have coming up and join us at Bear Festival to hear from experts and learn more about these amazing creatures. 🐾

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

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## Encouraging New Adventures:

*“I didn’t have any experience hiking before trying the passport program!”*

*—George Sparrow, who has now finished BOTH Passports to the Pajarito Plateau*

## Nature Center Hours:

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

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Pajarito Environmental  
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*This bobcat was relaxing in the nature center's observation area in early May, before heading down into the canyon. Photo by Bob Walker.*

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## FEATURED EVENTS

Suds & Shows: Back to the Future **JULY 12**  
Construct Your Own Virtual World **JULY 13**  
Electric Vehicle Show **JULY 14**  
Dendroglyphs of Valles Caldera **AUG. 7**  
Eat like a Bear Dinner **AUG. 24**  
Bear Festival **AUG. 25**

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