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PAJARITO ENVIRONMENTAL EDUCATION CENTER, LOS ALAMOS, NM

Farewell, My Friends

By Katherine Bruell, Executive Director

This is my last column for Nature Notes — a bittersweet experience, for sure. I know my decision to move on is the right one for me and for PEEC, but I will miss being a part of this wonderful organization. I hope you will forgive and indulge me if I use this last column to share some of my favorite early PEEC memories — though there's no space to include them all!

I started at PEEC in the old building on Orange Street, teaching a gardening class that my sons participated in. I remember Selvi Viswanathan showing us how to crush coriander seeds before planting them, and Emma Starrett saying com-post in her lovely British accent, which the boys and I loved to copy.

When I became the program director, I shared the herbarium/office with Dorothy Hoard, and with Chick Keller, who liked to sing loudly while he worked. Becky Shankland taught me everything I needed to know about PEEC and PEEC people, kindly and competently helping me to schedule programs. I remember when Chick told me Craig Martin was going to stop by, and I was speechless with excitement at meeting such a famous person. Who knew that this job came with celebrity-meeting perks!

Terry Foxx and Felicia Orth were memorable board presidents during this time, writing handbooks and policies, and generally building the organization into a more structured employer, as well as teaching



Gardening students pose with their scarecrow (2010)

me how an organization should be run. Their work foreshadowed the role Nancy Arendt would play for the organization for so many years after her husband, Paul, became a board member.

Diane Noveroske was my first PEEC coworker, and she always had chocolate for the humans and worms for Betty the Bullfrog. Beth Cortright and Siobhan Niklasson joined us soon after — Beth teaching Nature Playtimes as the little ones adoringly followed her around, and Siobhan making our education programs top-notch. Jenni Macke was always there, making everything about PEEC run smoothly, caring for our critters and our website equally. And Natali Steinberg astonished me when



Katie at Earth Day with a tall friend.

she said she was going to retire from the board when she turned 80. I still have a life goal to be as productive as Natali for as long as she has been!

Sue Watts and I dreamed about nature play areas and piles of dirt (remember the beloved dirt pile??) while later she and Michelle Altherr led the charge for us to write an interpretive plan and update our mission and vision in preparation for a new building. Chick dazzled the county council, telling them we'd have our own version of the Sydney Opera House if they built the new nature center. Remember all those kids who came to the public meetings, holding signs and cheering for the nature center? We're all so grateful that they spoke up, because then the new building was becoming a reality!

I remember meeting weekly in the construction trailer with Paul Arendt and Steve Huebner — the nature center was really Steve's baby, and he was very protective of it. We also hired Jonathan Creel to be our Director of Interpretation — setting up a somewhat of a confrontation between Steve who wanted every wall left pristine, and Jonathan, who wanted to put up some exhibits here and there.

I remember the grand opening of the new building when people just kept streaming and streaming and streaming in, and how excited the whole town was to have something so beautiful. I believe it was at this grand opening that someone introduced me to Larry Deaven who wondered if



Beth Cortright shows some young visitors one of PEEC's snakes

he might plant a few penstemons in some of the un-landscaped areas around the parking lot?

Those amazing penstemons became the backdrop for so many Summer Family Evenings — my favorite of all PEEC memories. Those warm, lovely evenings in June and July bring families together to learn about animals, yes, but also to see friends, to play in the tree house, to climb trees, and to just be together. After everyone leaves, I break down the chairs and tables and put them back inside, while hummingbirds, hummingbird moths, and all sorts of smaller insects get their dinner from the beautifully blooming penstemons. The sun is setting with big puffy pink clouds above the mountains as I ride my bike home, so filled with happiness with what PEEC has achieved in our community. 🌱

Rustle of Spring*

By Marilyn Lisowski

Spring tiptoes in with the scent of tiny grass shoots poking through the snow, swelling aspen leaf buds, early columbine in riotous reds and yellows, and the fleeting promise of warmth to come. Listen closely and you can hear the faint hum of early flies or bees, the fluttering of finches as they build nests, noisy Abert's squirrels biting off the new growth of Ponderosa pines, letting it plop to the ground. However, you will not hear underground, cocooned under leaves, in forest thickets or, high in the pines, the silent softness of rebirth, and of babies being born.

Tucked into an underground nest lined with fur, five tiny mountain cottontail rabbits, hairless and blind, nurse at their mother's belly. She knows that in a few weeks they will grow too large for the nest and she must nudge each one out the top to fend for themselves. If she doesn't, they will continue to grow until no one can budge, in or out. But outside on North Mesa, the danger begins: from salivating coyotes and foxes, from sharp-eyed owls and ravens, and from hunger and cold.

Deep in a thicket at the edge of the canyon behind PEEC, twin spotted mule deer fawns curl against their mother. The doe longs to join her family herd but knows the danger to her fawns if she emerges with them too soon. She must leave the fawns at dusk to feed, seeking out grasses and young sprouts from bushes for the nourishment to produce milk for her babies. The fawns lie perfectly still in her absence, emitting no scent to lead a mountain lion or coyote to their hiding place. Even so, half of all fawns do not survive to adulthood, succumbing to predation and lack of enough food.

Try to spot a hummingbird nest in May. Broad-tailed hummingbirds fashion cup-shaped nests of spider webbing and plant gossamer high in Ponderosa pines. Camouflaged with moss and bark fragments, a tiny nest holds two jelly bean-sized eggs. Babies peck their way out quietly, and do not attract predators. Their mother feeds them insects mixed with nectar for maximum growth. She knows

that they will be too big for the nest in three weeks. They jostle each other in play and begin to flap their wings. In the end, over the edge they plunge, onto a branch where the mother continues to feed them.

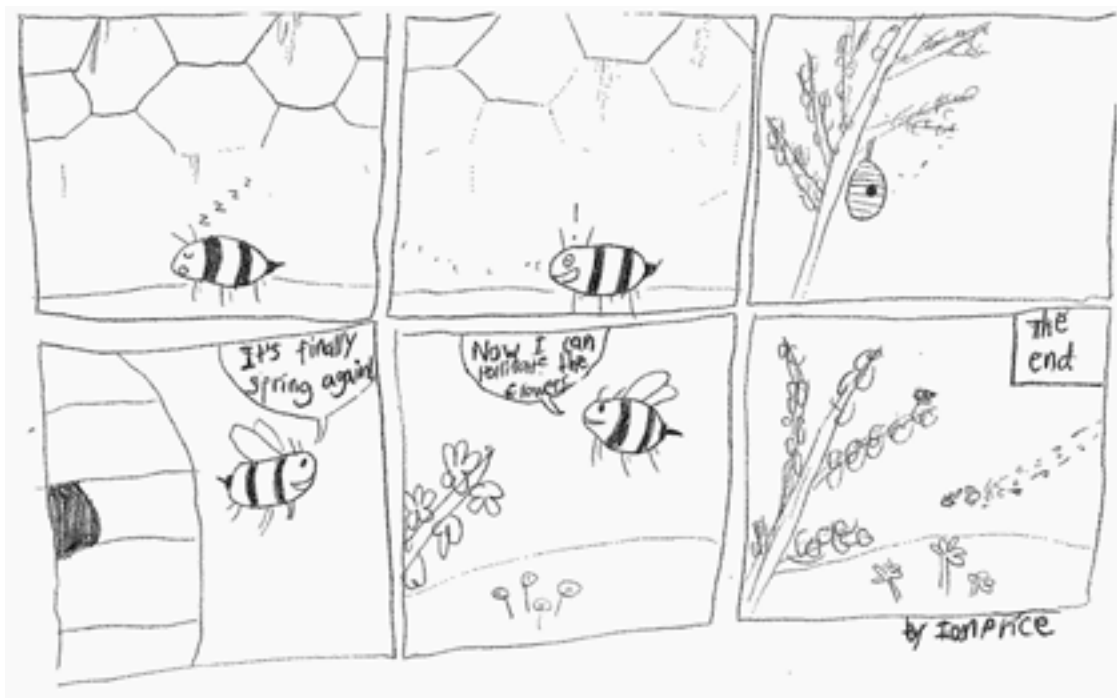
And then, they are free, a blur of wings, up and away.

You may notice a chrysalis glued into leaves of an ash tree. Don't break it! It might be the winter quarters of a Two-tailed Swallowtail larvae. Cloaked in rust-red and banded black and yellow at the neck, the caterpillar fattens up on ash leaves or chokecherry. When winter roars in, it has spun a skin of silk webbing around itself and its bed in the ash leaf, and the caterpillar sleeps until May. Keep watch! The butterfly that bursts forth is the loveliest transformation since Cinderella. It's a beauty in yellow with black trimming, and doubly-pointed tails adorned with blue spots.

Have you taken a walk beyond the horse barns on Kwage Mesa in May? If so, you might hear, not babies, but a rustling and scrabbling of the spiked little creatures some call Horny Toads. They aren't toads at all but Mountain Short-Horned lizards. In May, the males fight each other and mate with females. They fatten up on ants, soak in the sunshine, and in July, produce 5 to 45 live babies, each the size of a nickel.

Take a spring hike. Stop and look, smell, and listen for tiny sounds. Know that babies are just beyond your ears. Spring has come! 🐛

*Music by Christian Sinding opus 32 #3



No More Peat?

By Natali Steinberg

For over 50 years gardeners have relied on peat moss as a soil supplement for its moisture retention capabilities. We buy it in potting soil and seed starting mixes as well as bags of straight peat and many sizes of peat pots are available. Many of us long-time gardeners have relied upon it for everything from transplanting shrubs and trees to starting seeds indoors. However, according to an article in the New York Times, gardeners should stop using peat products because the consequences of its continued harvest on diverse peatland habitats are environmentally too serious and it is unsustainable.

Gardeners in the U.S. use peat moss that is harvested in Canada where 27 percent of the world's peatlands are located. The argument for no longer harvesting peat is that it plays a critical role as a vast carbon sink, and the extraction of peat releases substantial CO2 which contributes to climate change.

Peat was first introduced to the horticultural world in the 1960s as "the Rolls Royce" of soilless growing mixes, which can be up to 90% peat. Soilless mixes are considered essential in starting seeds because they are sterile and usually contain enough perlite and vermiculite to hold moisture continually while seeds germinate and grow to be a transplantable size. However, in the UK horticulturalists first began discussing going "peat free" 20 years ago. Last December a ban on the use of peat was introduced there, to be effective in 2024.

In the U.S. no such ideas have been promulgated. In fact, it is predicted that peat's presence in horticulture will vastly increase by 2050 for several reasons. The pandemic has caused many gardeners to grow more of their own food, and the newly legalized cannabis industry uses vast quantities of peat in its growing mixes.

So, what's a good substitute for peat in a soilless growing mix? Two factors need to be considered - how well it retains moisture and how well the mix compacts to provide a firm base. The new product coming on line in recent years is coconut coir - a fibrous waste product from the processing of coconut, however, like every other possible product, it has its environmental footprint

because it requires a huge amount of fresh water to prepare. Coir is sustainable because coconuts palms keep growing. Whereas peat is very unsustainable because it takes hundreds of years for peat bogs to create peat moss.

What's an environmentally conscious gardener to do? The most valuable use of peat is in seed starting mixes. If you are a gardener who starts all their plants from seed, as I do, continue to use peat based sterile mixes but try adding in a small amount of coir to stretch the peat. Otherwise, peat is deemed unnecessary in mixes for containers and it is considered totally unnecessary in backfilling holes when transplanting trees and shrubs. Instead use compost or bark-based mixes combined with garden soil.

Here, in drought-ridden New Mexico, it's especially necessary to consider soil additives that help us retain moisture. Compost is definitely the best bet. Several types of bagged compost are available at garden centers, and free compost is available at the Eco-station.

We should encourage garden centers to carry more coir-based products and less peat. 🌱



Book Review: *Planet*

By Ed Santiago

The One Los Alamos Women of Color Book Club has begun meeting at the nature center every other month. One Los Alamos is people of Los Alamos county interested in promoting thoughtful, civil dialogue around our diversity of backgrounds, beliefs, and identities in order to champion shared values and interests that can strengthen our community. Heidi Rogers created the Women of Color Book Club in February 2018 as a way to foster discussion and understanding of lives different from our own. Each quarter they'll share a book review on a book that might be of interest to the PEEC community.

To Kin, or not to Kin: that can no longer be a question; not if we hope to see many more tomorrows.

Planet is the first of the five-volume Kinship collection, a set of essays focused on humans and our relationships... with fellow living beings, with soil and rock, even with our Moon. Nineteen writers, diverse in heritage, culture, background, and voice, share their thoughts on developing a stronger bond with our home planet. None offer a shortcut to healing; there's no One Weird Trick to Solving Our Problems--although themes of seeing, listening, and feeling tend to recur. Much like with our everyday human relationships, in fact.

Earth is a pretty big and eclectic place [citation needed]. *Planet* is only a thin volume but it, too, is rich in variety. Its editors have done an admirable job of choosing writers, by which I mean: I adored some of the works, felt challenged by others, and found a small few impenetrable. That's a sign of thoughtful curating. Perhaps you'll relate to a native Hawaiian sharing the sensations of different forms of rain on her skin; or to stories of eye-to-eye contact with whales and other nonhuman intelligences, experiences that have the element of epiphany. Maybe you'll see our landscape differently after reading a geology professor's joy in sharing her curiosity and wonder with students.

Language plays a crucial role in relationships: one Australian writer explores the phrase "boots on the moon," with its overtones of exploitation and abuse, and cautions us to remember that the moon, too, has rights. Language matters. Pronouns matter: in some languages, bees and trees are theys not its. What can we learn when we extend how we listen?

Kinning. Active verb. It might jar you for a second or two, but I bet not more than that: you probably sense what it means, have even done it all your life. Each essay calls on us to kin, to expand our circle, to be active participants in connecting with those who, when you think about it, already are our Family.

Kin on. 🌀

INTERESTED IN JOINING THE ONE LOS ALAMOS WOMEN OF COLOR BOOK CLUB?

Please email Ed Santiago at
ed@edsantiago.com

A New Passport Arrives!

Thanks to the New Mexico Department of Outdoor Recreation, N3B, the Clif Bar Family Foundation, Los Luceros Historic Site, and PEEC, families have a new way to get outside and explore nature. The New Mexico Outdoor Pass (NMOP) is a free booklet filled with fun activities for families where everyone gets rewarded for spending time outside. Participants will explore eight themes relating to the nature and culture of the region and can earn stamps and prizes. They will make observations and discoveries, and learn about ecology, conservation, history, and climate. Families can earn stamps by completing activities at home, during community events and workshops, or at public lands in the region. Stamps can be redeemed for fun prizes that will make outdoor activities even more enjoyable.

"We're excited to debut this new passport program," says PEEC Operations Manager Beth Cortright. "So many families have done all the hikes in our Passport to the Pajarito Plateau program, and have been asking for more. We especially like the way this program isn't tied to any particular trail or location, so families all over Northern New Mexico can participate and earn prizes."

Carlyn Stewart, educator at Los Luceros Historic Site, says, "We're thrilled to be partnering with PEEC to bring more people to our beautiful location in Alcalde, NM for the events related to the NM Outdoor Pass. Los Luceros has so much to offer families—from fun trails, to easy river access, friendly farm animals, and a rich cultural history." Check PEEC's website for more information coming soon on how you can participate in the NMOP program. 🌀



Crossing our Fingers and Toes for an In-Person Earth Day 2022!

Mark your calendars for the return of the in-person Earth Day Festival at the nature center this year! The festival is scheduled for Saturday, April 23rd from 10 a.m. to 2 p.m., and promises to be fun for all ages. Join us to celebrate spring, nature, and our community's love of the outdoors!

Enterprise Bank is bringing back Recycle Man to provide musical entertainment and upcycled instruments for everyone to play. He'll be performing at 11 and 1. At noon, you can dance with the Hill Stompers. We'll have booths from all of your favorite organizations with fun activities to do, eco-friendly giveaways, and much more. Food will be available from Muy Salsas and Pig & Fig Cafe—both new to the festival this year! We'll have planetarium shows, crafts, games, and more activities throughout the day, as well.

Earth Day is also a great time to catch up on all your PEEC to-dos. Pick up your free membership gift if you're a contributing level member, get a new Passport to the Pajarito Plateau or bring yours in to show us your completed hikes and get your prizes. Visit the PEEC gift shop, which will be bursting with great ideas for all those spring birthdays and holidays—like graduations, and Mothers' and Fathers' Days.

PEEC staff and volunteers are looking forward to seeing you at the Earth Day Festival! 🌱



Recycle Man trains up a young drummer at the 2019 Earth Day Festival



Let's Journal! A New Interest Group

By Terry Fox

Let's Journal is a new email Google Group offered by PEEC. Nature journals are a tool to engage any age of person with the outdoors. Journals are places to use words, pictures, drawings, and numbers to record observations and questions about nature. Journaling enhances our sense of wonder and curiosity. The interest group is an outgrowth of a class on nature journaling taught by Sue Watts and Terry Foxx in 2021. Associated with the interest group is a monthly blog about nature written by Sue or Terry. Past blogs can be

TO JOIN THE LET'S JOURNAL GROUP,
Please email publicity@peecnature.org

found on PEEC's website, under Learn, Nature News and Blogs. Nature observations can be done anywhere: your yard, along a trail, a park, etc. All that is required is to slow down, to find a perching place, and to use your senses. A journal becomes a record of your memories and observations. Join our interest group, see things you never have observed before, and be amazed. Terry and Sue will teach another class in June. And remember you don't have to be an artist, just have fun. These are your memories! 🌱

Registration Now Open for PEEC Summer Camps



"Parents always thank us for tiring their kids out every day, and the camps are filled with returning students every year so we know the kids are having a great time. We look forward to welcoming more campers in 2022!" -Beth Cortright

The Pajarito Environmental Education Center's (PEEC) beloved summer camps return in 2022 with options for students entering grades 4 through 12. Long-running June camp favorites such as Nature Odyssey, for grades 4-6, and Living Earth Adventure Program (LEAP) for grades 7-8, are joined by newer camps and clubs like Space Camp (grades 4-7) and Mountain Biking Club (grades 7-12). PEEC's summer camps are held outdoors in the beautiful nature of Los Alamos and the Jemez Mountains, with plenty of time for hiking, fort building, playing, learning about nature, and splashing in water. The camps are a great opportunity for children to unplug and spend time screen-free, getting dirty, having adventures, and making new friends.

Full details and registration information are available at:

<https://peechnature.org/events/summer-camps-2022/>

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

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Programs that Engage You

"Thank you for all of the engaging programming that PEEC provides!"

— Program Participant

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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INSIDE

- 1 Farewell my Friends
- 2 Rustle of Spring
- 3 No More Peat?
- 4 Book Review: *Planet*
- 5 New Passport Arrives!
- 6 Earth Day 2022 — Let's Journal!

UPCOMING EVENTS

Wildflower Walk **APRIL 25**

Science of Star Wars **MAY 6**

Summer Family Evening: Goats **JUNE 8**

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