



Nature Notes



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PAJARITO ENVIRONMENTAL EDUCATION CENTER

October Is for You

By Katherine Watson, Executive Director

October is the month we set aside at PEEC to celebrate our members, who help connect people with nature in so many ways. Members like you allow PEEC to offer free and low-cost hikes, outings, talks, classes, and events for everyone in the community. Your dedication shows our big funders, like the County, foundations, and grant-makers, that PEEC has the community's support. As a PEEC member, you share your love of nature with everyone who visits the nature center and joins us for an event.

Two of our longest-running members are Ronnie Moss and her husband Joel. To celebrate member-month, I asked Ronnie to share with you her motivations for being a PEEC member.

Meet Ronnie Moss

Ronnie taught English at Los Alamos High School with Becky Shankland, a founder of PEEC. She says that as soon as the group that became PEEC started, Becky called her. "Becky said, 'This is something you're going to be interested in.' And knowing Becky, that was more of a command than an observation."

Why PEEC?

"There are so many causes that we believe in, so we need to be selective about where we give our money," Ronnie explained. "At some point we made a

conscious decision to be local with our giving. PEEC includes all the elements of this place we live—the skies, animals, plants, birds, and insects around us. It enriches us to know about all of them. PEEC is good for the education of the young in the community, and the old as well. When people have knowledge about and a love of nature, they're motivated to protect it. We're thrilled that the nature center exists now to

You're invited...



PEEC-nic



Sunday, October 16, 2-4 PM



IT'S OUR ANNUAL MEMBERS' MEETING!

- **Savor** delicious desserts
- **Win** door prizes
- **Vote** for new board members
- **Bring** your leaf artwork (from page 4) and get your picture taken to be on our display!

support purposes we believe in wholeheartedly.”

A Wish

Ronnie wishes that even more people would visit PEEC, where they can see how wonderful the nature center is and what wonderful discoveries emerge from exploration and learning. She explains, “PEEC helps to develop interests we didn’t even know we had.” She especially encourages young families to join PEEC as members. “Absolutely do it!, Ronnie says. “You’ll be amazed at how many worlds it opens up.”

Nature Memories

Finally, Ronnie shared a story with me about how she began to love nature. “I was introduced to bird watching at age nine by our family doctor, who was also a neighbor. He had a daughter a few years older than I was, and he frequently took the two of us out in the early morning to look for birds. Of course, the scope of what PEEC is doing is much more than bird watching. I guess you can’t include a study of the whole world, but with PEEC it feels as if you could.”

Thank you!

PEEC is honored to have the support of so many wonderful community members like Ronnie and Joel, including you! Thank you for all that you do to connect people with nature. You truly do make a difference. 🌱



Penstemon angustifolius. Photo by Beth Cortright.

What Is a Penstemon?

By Rebecca Shankland

In addition to the raised gardens of water-wise, pollinator, and native plants, a new garden has been created in the nature center’s parking island that is devoted to one remarkable genus of flowers called penstemons.

Penstemons are famous for being delicately beautiful flowers that are also drought tolerant, a winning combination for gardeners living on the Pajarito

Plateau. Volunteer Larry Deaven, long-time wildflower expert, has graced this garden with an impressive collection of his hand-raised penstemons, interspersed with rocks that create both useful pathways and visual interest.

Penstemons have many virtues. Their tubular flowers attract hummingbirds, bees, and butterflies. Our penstemons were nearly constantly visited by hummingbirds this spring and summer. While sipping nectar from the flowers, pollinators brush against the pollen and become busy agents of pollination. Curiously, one of the penstemons’ five stamens lacks pollen but has a bristly protuberance that Wikipedia describes as appearing like an “open mouth with a fuzzy tongue,” hence the popular name “beardtongue.” Two derivations have been proposed for the name: “pent = five” plus “stemon = stamen,” meaning “five stamens”; or “pen = almost” plus “stemon = stamen,” referring to the fifth, infertile stamen.

Although penstemons attract many pollinators, they repel other wildlife such as rabbits. They grow cheerfully in rocky or sandy soil, not needing rich garden soil. They come in a gorgeous rainbow of colors: scarlet red, purple, pink, blue, yellow, and white. Most lose their leaves in the winter, but a few are evergreen, like *P. pinifolius*. Among the penstemons that grow well in local gardens are ones like Scarlet Bugler (*Penstemon barbatus*) that also perk up our hiking trails.

Penstemons are native to North America, where over 250 different species have been identified. New Mexico has about 40 wild species. Larry has planted about 60 species and 10 cultivars at the nature center, some native to New Mexico, some that grow elsewhere. For local gardeners, Larry recommends *strictus*, *cardinalis*,

pseudospectabilis, *pinifolius*, *barbatus*, and *virgatus*.

The penstemon landscape was supported in part by a Special Projects Grant from the American Penstemon Society. Like our other gardens, it is available for adoption by individuals or groups.

As you admire the handiwork of this one-man show, notice how many bees, butterflies, and hummingbirds are enjoying it too. 🐝



Let the adventure begin! (Anders and Adrian Medin and friends) Photo by Roxana Candia.

The Two-Week Super Challenge

By Sandra West

We could arguably say that this was the summer of hiking. As of September, Passport to the Pajarito Plateau participants logged 3,000 hikes, and 45 people completed all 16 hikes! The feedback has been overwhelmingly positive; enough so that we are already planning a new program for next year. Stay tuned!

In the meantime, fall is a great time to hike more trails. There is still time to fill your passport and collect prizes for your completed hikes. The program doesn't have an end date, so keep stamping those passports. If you are wondering how other families are faring on their passport hikes, then you will enjoy this story by Roxana Candia:

***"We ended
up hiking all
morning..."***

"When I heard about the Passport Challenge, I loved the idea right away. I knew it was going to keep the kids occupied all summer. That was the plan anyway, but our adventure turned out a little differently!

"I waited until the kids were on summer vacation to start our first hikes. The kids and I had an idea about how the passports worked, but we were not quite sure what we needed to find. The first hike started out well. We were excited and scanned the edges of the trail searching for the post. By the time we walked more than half of the Bridges Loop, we were starting to become worried, but then...We found it! Relief and excitement instantly washed away our worries—I think I was more excited than my kids.

"Once we did the crayon rubbing for our first hike, the kids were eager to find the rubbing plate stamp for the next hike. We ended up hiking all morning around the aquatic center and got stamps from three different hikes. And on top of that, we got a prize. Yes, a success!!!

"That's when the big adventure started. Some hikes were challenging and some were exciting. Here are the highlights according to my kids, and I agree with them:

- The most difficult hike: Blue Dot Trail
- The scariest hike: Aspeñola loop—it was stormy toward the end of the loop
- The most enjoyable was: Rendija Crack
- The one that held the most suspense: Bridges Loop—we did not know what to expect
- The prettiest one: Ranch School Trail
- The best view: Deer Trap Mesa
- The easiest ones: Canyon Rim Trail, Acid Canyon, and Downtown Historic Walking Tour

"So, yes, our summer-long adventure turned out to be a two-week super challenge."

Which trail was the most enjoyable for you? Please send your stories and trail ranking to Katie Watson at director@peecnature.org. Your feedback will help us improve next year's program.

Enjoy the journey. 🐝

Your first EVER Nature Notes Fun Page

Brought to you by Roady Roadrunner (who is ever so slightly forgetful and...well...bird-brained) and her pal Bugsy!



Trivia question:
What two leaves have a similar heart shape, are about the same size, and turn brilliant yellow in the fall? Do you know how to tell them apart??
(answer somewhere on this page)

check out these Fun activities!

1. MAKE LEAF RUBBINGS:

Collect interesting fallen leaves. Place them on a flat surface like a table. Cover them with a thin sheet of paper and rub over it with the side of a crayon or oil pastel. Try it on the front and the back sides of the leaves. Look at how the leaf vein patterns show up!



3. START A FOLIAGE JOURNAL:

Get a notebook to make a foliage journal. Walk quietly for a while on your favorite trail and pay attention to what's around you, whether it's fall colors or the sounds and smells of the woods, and write/draw in your journal about what you notice. Use color! Take pictures of the same beautiful place in the neighborhood each week and compare them to see how the leaves change. Include poems, drawings, or other artwork in your journal and tape some real leaf samples in, too.



2. PRESS LEAVES:

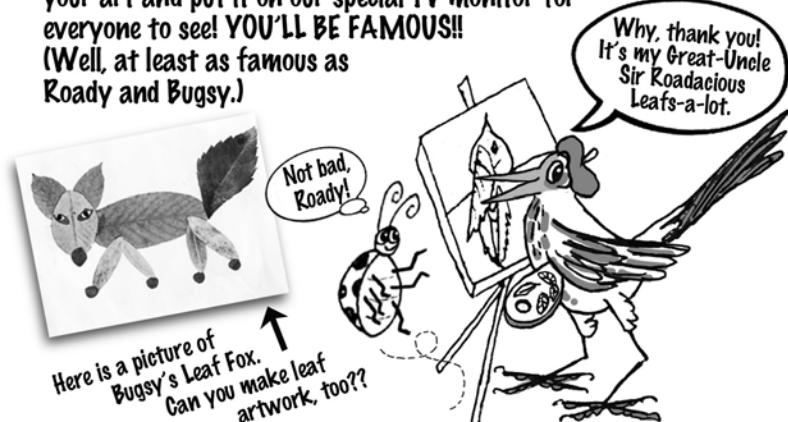
Collect different kinds of leaves. Place leaves between two layers of paper towel. Then press each leaf "sandwich" (Bugsy's favorite lunch!) inside a large book. Add several more books on top, and "leaf" it alone (haha) for about 2 weeks. When done, they'll be totally flat and preserved! So pretty!



4. MAKE FOLIAGE ART:

Part One: Arrange fall leaves on paper to create your own art work! You can make an animal, landscape, or ANYthing, but only use leaves. Glue your leaves into place and sign your name on it.

Part Two: Bring your masterpiece to our annual PEEC-nic event at the nature center on **OCTOBER 16**. We'll take a picture of you with your art and put it on our special TV monitor for everyone to see! **YOU'LL BE FAMOUS!!** (Well, at least as famous as Roady and Bugsy.)



Trivia Answer: Aspen and Fremont Cottonwood leaves! Fremont Cottonwoods have wavy edges like the leaf on the right and Aspens, on the left, don't.

Fun fact: Aspens live high up in the mountains while Cottonwoods are found at lower elevations along waterways.

This Land Is My Land

By Bruno the bear with help from Marilyn Lisowski

*"This land is my land, this land is my land.
From Pueblo Canyon, to Barranca Mesa,
... hmm hmm hmm hmm hmm...
this land was made for Bruno. That's me!"*

I am twelve summers old, 300 pounds of all-male black bear. I slide out of my long sleep when warm wind blows by my hole, and bright sun pushes in. I'm hungry! I smell and dig around old stumps and push over rocks to find the delicious candies underneath. People call them insect larvae or grubs. Young grass, smelly, soft, green spikes pushing up through the damp earth. Yum! I gobble it down.

I slink along Los Pueblos and Loma Linda, people roads. I skip up Deer Trail, by all the people caves, when it is dark and quiet. Ah ha! Garbage cans put out early for tomorrow's garbage truck. Knock down that can! Pull out the bags. Party time! Jimmy Dean breakfast bowls and soggy Fruit Loops are so much tastier than grubs for breakfast! Ok, I'm supposed to eat berries, wild fruit, grubs, and larvae, pounce a lone mouse, even a raccoon if I'm fast, or anything already dead. I know what to eat. But people caves provide the best treats! They are always on time.

I love my canyons, Bayo and Pueblo, and my mesas, North and Barranca. Those are mine, no other bear's. But, I used to roam this whole mountainside, bear food everywhere. Then people put their caves up all over, and roads, fast machines on roads. I share it with them now, and they leave cans with treats. I think they leave them for me. It is a good way to share.

In Hot Time, I sleep in a pine needle dip, behind a big rock. People walk all around when it is bright. But in the cool dark, they go in their caves, and I go for fruit! Up I go, fast, knock those sweet balls, lie underneath, and chow down. Fun! I like wild berries too – if people haven't eaten them all. They really like my berries. Odd, since their food tastes so good. They eat mine; I eat theirs. A good way to share? Not sure. People are scary.

I know all the scents in my canyons. I can sniff barbecue sauce from far away, roasting meat, bird

*...they leave cans
with treats. I
think they leave
them for me.*



Bruno the black bear. Photo by Amber Wallace.

suet. Can I get some – maybe! I need to stay hidden. Some people are mean. If not, well, I smell dead ground things. I smell a mean old cat, lying in the sun by a people cave. I'd better leave the cat alone.

Cubs bug me, baby cubs, half-big cubs. In this Warm Time, three summers-old bears came down into my canyons. Why don't they understand? These are my canyons! I growled and roared that I'd eat them, but they whimpered "please don't, no food higher up."

Now they stay out of my way. I have to share a lot more than I like. They hunt during Sun Time when I sleep, do a lot of bad stuff, climb up people caves and eat bird food, make people mad. Gives me a bad name, you know? Sure I'll eat bird food too, at dark time. And I hide from those scary people. If they don't corner me, or surprise me, I leave them alone. Once, I roared to attack a person who nearly ran me off my trail. This is my land. Mine. But he roared back and sprayed me. I ran away, fast. Did they learn that from the small, striped one that sprays from its tail? It's my trail. I don't like sharing.



Troublesome cub climbing a people cave. Photo by Esta Lee Albright.

I only share with my she-bear. Her land, Deer Trap Mesa and two canyons north, is barely enough for her and her cave. She needs space to keep her furry cubs away from me. I only want to see her every two Leaf Falls, that is when she smells the best and when she lets me get close to her, to mate. She's fat, soft nuzzle nose, smells so good, like old leaves mixed in wet dirt. In one Cold Time, my hole filled up by a new people-cave, I squeezed into another one for my torpor and she was there, deeper. She let me stay. I woke drowsy, still in Snow Time. Something wiggling, squeaking. Two mousey, furry things crawling, attaching to her nipples, and purring. Didn't sleep well. I almost ate them. Crawled out when snow was still around. I'll find my own hole, thanks.

Leaf Fall is my favorite time. Acorns everywhere, a few piñon nuts, and luscious juniper berries. I feel the wind blow cold on my nose, lifting my new thick winter fur. And Apple Time on North Mesa is close. Apples! On the ground, sweet and brown. People leave them by their caves and I clean them up. I get very fat just before Cold Time, when I crawl away, swaying my bulging sides. I find my hole in the canyon, squeeze into it, and slide into torpor as the first snow flakes drift onto the rocks. 🐾



Oxeye Daisy (Leucanthemum vulgare). Photo by Craig Martin.

When Exotic Is Beneficial

By Natali Steinberg

The words “native” and “exotic” carry distinctive connotations in many applications, and this is especially true when referring to plants. In the plant world, natives are usually defined as species that grew in North America before Europeans arrived. They are often referred to as indigenous—meaning they grow in a particular region and ecosystem without human intervention.

Non-natives, also known as exotics, are plant species that appear in an ecosystem, either intentionally by human hands or accidentally, transported by wind, water or ship or carried by birds or on the hair of mammals. Today, almost all of our home garden plants would be considered exotic. Some exotics can overpower natives and become invasive, causing harm and bringing imbalance to an ecosystem. But, does that apply to all exotics?

Many exotic plants are listed locally and nationally as noxious weeds that need to be eliminated. There are entire labs at universities around the world dedicated to studying methods of eradicating exotic plants. Native Plant Societies not only promote protection of natives, but also send out volunteer crews to eradicate exotics that have become invasive.

There are sound and valid reasons for these efforts. Birds and butterflies rely on certain insects and plants to reproduce and feed their young. Some insects only utilize certain native plants for their food. Thus, it is widely believed that if a native plant, such as milkweed, disappears, so may the monarch butterflies.

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Sometimes nature surprises scientists. There are monarchs on the California coast that have adapted to eucalyptus, a very invasive, exotic tree from Australia. They are now the favorite over-wintering plants for monarchs in California.

There are other examples of exotic species that we wouldn't dream of eliminating today. In the 15th century, European earthworms came to America accidentally, in the ballast of ships from European ports. Today we never hear biologists advocating for their removal—quite the contrary.

We also rely heavily on an exotic insect brought here in the 17th century—the European honey bee (*Apis mellifera*). Today it is responsible for pollinating 80% of all agricultural crops in Florida and California. It is also the state insect in twelve states!

So how do we know when an exotic species will be beneficial and when it might endanger an ecosystem in these times of rapid climate change? Is it possible that some exotics might prove beneficial as they move into areas devastated by humans and weather, such as overgrazed land or land impacted by erosion and flooding? Ecosystems are changing so rapidly that

Ecosystems are changing so rapidly....

diversity in the plant world might be advantageous.

At PEEC we are allowing two noxious weeds to grow because of the benefits they provide. We have a large Russian olive tree, which may have taken root during a spring of plentiful moisture.

It provides shade, shelter, nesting sites, and food for our birds. Oxeye daisy was the first blooming plant to colonize the almost soilless slope between our parking lot and the Jewish Center. While helping to hold the soil from erosion, it provides nectar for butterflies.

Two of our three garden beds at PEEC are filled with exotics, which beautify many home gardens and are not invasive. Visit our gardens to see how both natives and exotics can be beneficial. 🐝



Bee on native Blanket flower (*Gaillardia aristata*). Photo by Sandra West.

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

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Inspiring the Next Generation:

"[Students] were using vocabulary in their conversations like 'migrate,' 'habitat,' 'survive,' and 'shelter.' My favorite field trip of the year."
-Fifth grade teacher's response to our bird banding program

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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*Seeing wild birds up close during a bird banding field trip creates lasting memories for these 5th graders.
Photo by Denise Matthews.*

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FEATURED EVENTS

White Rock Canyon Clean-up **OCT. 15**

Ancestral Puebloan Constellations **NOV. 18**

Valle de Oro Wildlife Refuge **NOV. 29**

Native Bees and Their History **DEC. 6**
