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PAJARITO ENVIRONMENTAL EDUCATION CENTER, LOS ALAMOS, NM

National Wildlife Federation Certifies Aspen Elementary School as the Newest Schoolyard Habitat in Los Alamos

By Michele Altherr

The National Wildlife Federation (NWF), America's largest wildlife conservation and education organization, is pleased to recognize that Aspen Elementary School in Los Alamos has successfully created a Certified Schoolyard Habitat® through its Garden for Wildlife program. Aspen Elementary has joined other local schools (Mountain, Barranca, LAMS, and LAHS) as well as over 5,000 schools nationwide that have transformed their schoolyards into thriving wildlife habitats that provide essential elements needed by all wildlife - natural food sources, clean water, cover, and places to raise young. Schoolyard habitats also serve as outdoor education sites where students can engage in cross-curricular learning.

"We are excited to have another school join our growing list of certified Schoolyard Habitats. Kids can now personally experience nature through hands-on learning in an outdoor environment," said Liz Soper, Director of K-12 Programs for National Wildlife Federation.

Aspen worked for two years on creating an outdoor classroom. It was exciting to see an alternative learning space established on the Aspen campus. An outdoor classroom is a perfect setting for teaching all subjects while also reigniting students' motivation to learn. Aspen's constructed space includes raised planting beds, musical instruments, a seating area with whiteboard, a cultural garden, a mud kitchen, shade structures, water spigots, and more. It was the contributions of several community organizations, Eagle Scouts, students, and staff that made Aspen's outdoor classroom possible. The space is well established, yet like a blank canvas with limitless possibilities.

In the spring of 2023, a group of first-grade students at Aspen learned about the essential elements of a habitat. They conducted an inventory to see if their schoolyard met the requirements to become certified with National Wildlife Federation (NWF), which it did!

Los Alamos became a NWF Certified Community Wildlife Habitat on Earth Day 2016 and currently has 238 certified habitats. NWF's Garden for Wildlife program encourages homeowners, local businesses, schools, places of worship, and others to use responsible gardening techniques and plant species adapted to the local climate. These habitats are wildlife sanctuaries that help pollinators and other wildlife thrive.

For more information on gardening for wildlife and details on how to become certified, visit https://www. nwf.org/CERTIFY. At the same link you can even check out Tilly, a national online landscape design company that will design your yard to meet NWF's certification standards. Additionally, you can visit the Los Alamos Nature Center for further information and tips on providing the essential elements for your wildlife habitat. Congratulations to Aspen Elementary School for making a difference to protect wildlife!

Michele Altherr is a retired LAPS educator and administrator.



Teachers and kindergarten students working diligently planting in the raised beds. Photo Credit: Michele Altherr

Frenzy in the Fall

By Marilyn Lisowski

Feel that chill this morning? You did? So did I. And so did all the mammals, birds, reptiles, and insects around you.

You and I don't have to worry about the chill. We adapt with a simple coat. But all those other creatures know they are in danger. Ground squirrels and chipmunks hibernate, a state of drastically low body temperature, metabolism, and heart rate, and deep sleep, with snack food in case of a wake-up. Bears slip into torpor, not quite as deep a sleep. Reptiles brumate, an even less drastic condition. But unlike them, our deer and mountain lions must endure the winter on a starvation diet. Others, like hummingbirds, simply escape south.

Those massive 300-pound black bears who roam our mesas become voracious now.

Their fur has grown thicker, but they know they need to fatten up more to survive the numbing cold to come. At night, they gobble up apples left on the ground under your neighbor's apple trees. They go dumpster diving. They raid your garbage if you leave it out: pizza crusts, Jimmy Dean Breakfast Bowls, spoiled hamburger. They chomp seeds from your bird feeders. They know that once they plunk down in their caves for winter, there will be no snacks for four or five months. They will awaken periodically, move around if the temperature rises, then slump into torpor once again.

Our canyon mountain lion, with two hungry half-grown kittens to feed, doesn't hibernate, and neither do the deer she relishes. Her fur is thicker now and should be enough if only she can locate food. She can spot her prey better without foliage getting in the way, but the deer hide, huddled together. And, with little to eat except bark, they grow progressively skinnier as the bitter winter drags on.

Lizards and snakes scurry for shelter from shivering temperatures. They slip into cracks and crannies, or underground where it won't freeze. They can endure cold, but freezing solid will kill them. They "brumate" rather than hibernate, lowering their body temperature. If the temperature rises, they can even find a snack before slipping into brumation once more.

Hummingbirds flee to Mexico, fat from binging on insects and sipping nectar. It costs all that fat for a one-way ticket, thousands of miles. Once south, they sigh in relief, chomp on juicy insects and suck sweet flower nectar until the sweltering heat of the next spring drives them north once more.



The Broad-tailed Hummingbird enters torpor, a slowed metabolic state, on cold nights. It maintains a body temperature of about 54°F (12.2°C) when ambient temperatures fall below 44°F (10°C). Photo Credit: Bob Walker.

Ravens cache food in trees or rocks to feast on when other food is scarce. And they hope for a tasty meal if an animal doesn't survive the bitter cold. Watch for them, massing in trees or bunching on wires for warmth. Listen as they call, converse, and chuckle.

Some insects, like the Mourning Cloak butterfly, crawl into tree hollows and rock crevices to escape the worst of the cold. Called "diapause," their bodies produce an anti-freeze chemical to help them survive. They become dormant and do not awaken until the warmth of spring.

Bumblebees, like many insects, simply die with the first cold snap. The queen bee, however, burrows underground and revives in spring, when she lays enough eggs to repopulate the hive.

Hibernation, torpor, brumation, diapause, and migration are fascinating examples of nature's winter survival strategies. Not all of our animals, birds, and insects will survive the winter. But enjoy watching them and their pre-winter food gorging, coat thickening, and shelter hunting. Know that there is a purpose for it all: survival.

It's the Box Elders Offering First Hints

By David Fox

It's the box elders that tell first of what's just on the slim edge of change, Standing gracefully apart along the curvings of the merest water course, Sturdy sentries dedicated to the keenest lookout for transition For the hunters of such, like you and I.

Travel --west is best-- to find them. You will see them. Look carefully. Your eye will seek them naturally. Less green by the smidgen of a shade or two. Keep your eye on the road slipping by under you.

Now gently awakened, without surprise surely, You knew it would arrive, surely slowly, In the roadside stands of whipped or nodding seedheads of the grasses. More casual, the build of floating Cumulus castles in the sky.

These things and more For the hunters of such.

Like we together,

You and I. 🥥



Book Review: The Next Great Migration

By Ed Santiago

It's a scene many PEECers will recognize: a small group of bird enthusiasts, out before daybreak in an open field, oohing and aahing at a massive migration overhead. Then comes the uncomfortable job: midmorning, leaving for home, these same nature lovers acidly complaining about non-native grasses in that field. And in the time-honored tradition of hypocrites everywhere, my immediate reaction was, "No, that's different!"

Uh-oh. Every time I catch myself doing that, I know I'm in for a bout of self-questioning.

In *The Next Great Migration: The Beauty and Terror* of *Life on the Move*, journalist Sonia Shah elegantly documents the current (2020) best knowledge on evolution, geography, culture, and genetics, zeroing in on an inescapable conclusion: migration is the natural state for all living beings. It's our human time frame, our limited perspective, that tricks us into seeing biomes as static. Shah covers historical beliefs and arguments for a static worldview, and shreds them all with well-documented evidence-backed research.

Good science; but it's stories that reach us, and Shah makes effective use of those. Each chapter follows a general pattern: introducing a general theme, say speciation or transoceanic voyages; presenting past beliefs, highlighting one or two of the most prevalent ones, along with the personalities fostering them; then closing with the best available modern understanding of each, again with personal touches. A recurring motif is seeing how disturbingly ethnocentric and racist those past beliefs have been, and often still are.

The book is informative and enjoyable. Enchanting, even: Shah clearly loves the topic, and her focus is heavily on the *Beauty* side of the subtitle. I learned historical context that helps me put my previous knowledge into perspective, and also learned of recent developments in GPS tracking and mapping. The chapter on Polynesian wayfinding was mindblowing. And the maps! Nontraditionally drawn, needing a little time to orient myself, but oh so worthwhile.

It's also uncomfortable at times. I consider myself accepting of human migration and a proponent of

wildlife corridors, but Shah's nuanced defense of "invasive" species is more than I can swallow... at least right now. Salt cedar, anyone? Cane toads? No mention of either; but she does acknowledge the zebra mussel, and she's protective of fragile island ecosystems, and she provides compelling arguments for her views. The arguments did not sway me to her side, but they moved me, from intolerant of exotic plants to accepting that there can be gray areas with consequences I hadn't considered. She's made me recognize that I have some more learning to do, and I hate that. I much prefer clinging rigidly to comforting past beliefs. So if you're like me, I urge you to read *Fluffy Bunnies XLIV: Flopsy Stays Home* instead.

[One Los Alamos is a local group 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. https://linktr.ee/OneLosAlamos]

Second Community Wildlife Habitat Sign in Los Alamos

By Selvi Viswanathan

Los Alamos now has a second Community Wildlife Habitat sign in White Rock. It was installed in the Green Team Demonstration Garden at the White Rock Visitor Center on August 25th, 2023. Thanks to Angelica



The Certified Wildlife Habitat sign at the Demonstration Garden in White Rock. Photo Credit: Emmanual Abeyta

Gurule, the Sustainability Manager for Los Alamos County, who was introduced to me by County Chair Randy Ryti, as she worked to make this happen.

Los Alamos was designated as the first Community Wildlife Habitat in New Mexico in 2016. Luisa Grant of the National Wildlife Federation came in person during PEEC's annual Earth Day Festival to present the certificate, also unveiling a sign that is now at the Los Alamos Nature Center. But we wanted a second sign to give our community more recognition.

A few months ago, my son Hari Viswanathan and I began working with Angelica Gurule and Anjali Takkar, the Community Habitat Coordinator at the NWF. Angelica also worked with Wendy Parker, Parks Superintendent of Los Alamos County, since this department has to approve the new sign. Wendy approved it, and the sign was ordered!

Wendy Parker, with her team members Emmanual Abeyta and Alex Archuleta, installed the new sign, and it was very nicely done. Many thanks to Los Alamos for supporting the care of the flora, fauna, and wildlife of our county. This sign is now posted along the State Route 4 walkway Demonstration Garden for all to be proud of and enjoy.

Donate to PEEC

Skip the envelope and donate to us online!

Donate online to help us save money on printing costs and reduce our environmental footprint.

Save time and a tree or two by scanning the QR code below or visiting the following link:





Thank you for YOUR Support.

Fantasia and the Boil of Bounding Winds

By David Fox

When boil of bounding winds Do imagination unwind Their grasp, and free From strapped expression Mind's carousing limbs, Branches, twigs, buds, Leaves of strewn, exhausted tumult, What's to be done Understood: Future, present. Or past.

Within the calyx of Billions of births Is wrapped sun risings of all dawns All thunders that ever have been, Wind warped sands, Green's thick flourishes, Songs, hoots, tangled noises Of jungled exuberance. Snapped cartilage and Rebirths that have ever and ever will be Born to repeat confounding grapple To reveal and correct for aberration forever The boil blithely born By the boil of bounding winds.

Night flutes with no more warnings Than aspirations Seek feathered shiftings, Settlings in nests of whispers Born in twiggy pockets of deserts' nighttime sands, In wetlands, beneath moons of darkness, Above the sudden gleam of awakened waters The noise of startled hunting silence. While fins of restlessness, In depths measured In magnificent units, Hunt just offshore, Hear echoes of behemoths In submerged search for more.

The boil of bounding winds Whistles in limbs of the trees for more.

Spread the Joy of Nature

In 2022, PEEC strengthened over **26,700** people's connections to canyons, mesas, mountains, and skies through our successful programs and engaging visits to Los Alamos Nature Center. We achieved these powerful results because of support from community members like you!

With over **100+** volunteers, **500+** members, **300+** donors, and **95** partner organizations, it takes the whole community to invest in this work and ensure that **everyone can find joy in nature.**



10 Ways to Support PEEC

1. Make an end-of-year gift to ensure that PEEC remains a place for everyone to meet, learn, play, and enjoy the beauty of nature.

2. Become a monthly donor for the future of nature, of people, and of our connections to each other. You only need to sign up once, and it is the gift that keeps giving!

3. Leave a legacy that will raise champions for nature. Leave a planned gift to PEEC in your estate. Talk with your estate planner, and reach out to PEEC, to let us know.

4. Give through your workplace. LANL employees who give to PEEC through a payroll deduction get their gift matched by Triad. Talk with your employer, or look at our website for instructions.

5. Adopt an animal at PEEC to help us make improvements to our animal exhibits and outdoor areas. A great gift for a loved one in your life!

6. Become a member to ensure an ongoing schedule of events on a variety of nature

topics for all ages. PEEC members receive member pricing for events, discounts at the gift shop, and much more. We have multiple levels, you can decide what is right for you.

7. Volunteer at PEEC. There are so many ways to get involved like docenting, critter care, bird feeding, gardening, education programs, and more!

8. Shop at Smith's and support PEEC every time you shop. Simply enroll in the Inspiring Donations program and select PEEC as the beneficiary. Smith's will donate a portion of your spending to PEEC.

9. Make a Qualified Charitable Distribution from your IRA. You can donate up to \$100,000 to one or more charities directly from a taxable IRA instead of taking your required minimum distributions. This may help you avoid being pushed into higher income tax brackets. Talk with your financial advisor to learn more.

10. Visit PEEC, attend a program, and shop in our gift shop. Check out our incredible program offerings, relax in our observation room, or do your holiday shopping with us.

Join Us for the Solar Eclipse!

Join us for a community viewing of the annular solar eclipse at the **Los Alamos High School courtyard on Saturday, October 14th from 9 am to 1 pm**, with the peak of the eclipse occurring at 10:36 am.

Los Alamos is within the central path of the eclipse. The sun will appear as a perfect "ring of fire" when the moon passes directly between the earth and the sun. Because of this, it is essential to use eye protection at all times during the eclipse.

The community event features free eclipse glasses, projection of the eclipse on a large outdoor screen, National Park Service programming, educational booths and science activities, school clubs, and more.



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

PEEC Board of Directors

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"Absolutely a must see! Plan a show in the Planetarium."

- Los Alamos Nature Center visitor

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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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Come celebrate our volunteers, staff, and the community at PEECnic! Photo Credit: Teianna Mitchell

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UPCOMING EVENTS

Clever Crows and Roguish Ravens **OCTOBER 26**

Teen Game Night NOVEMBER 20

Home Alone and Hot Chocolate **DECEMBER 9**

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

Please contact admin@peecnature.org if you'd like to opt out of paper newsletters.