



NEWSLETTER

Pajarito Environmental Education Center

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www.PajaritoEEC.org
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(505) 662-0460
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President's Message

by Randy Ryti

I stopped at PEEC on my way to work one Friday in July, and it was an active place. Beth Coop had the Kinnikinnick Club children on the lawn looking for insects; Sierra Argo was directing the volunteers working on the water harvesting and landscaping project. It was gratifying to see the Center being used as a focal point for these natural connections.

This buzz of activity was indicative of bountiful summer PEEC programs. Our programs included classes for children like the "Mommy and Me" and "Preschool Science Fun" series and the Nature Odyssey day camp program at the Valles Caldera Natural Preserve. We also had adult education classes like the grass identification class. Other programs appealed to the whole family like the "Bats in Los Alamos" Summer Sunday program.

Programs are the main purpose of the Center and it is the intention of the PEEC Board of Directors to provide the community a variety of topics and venues for these programs. While the Board recognizes that programs represent an important source of income for PEEC, it is also important to have some programs without fees and to offer scholarships or discounts for those who could not otherwise afford to participate.

Managing a burgeoning curriculum of programs during the summer and the rest of the year is becoming a larger job. The PEEC Board had recognized that volunteer resources would become taxed as we added more programs and we created a goal to have a part-time paid position for a program coordinator. We have started working toward this goal by including funds for a part-time program coordinator position in a grant application and by preparing for a fall fundraiser and membership drive. If we could increase membership, then we could have the funds to pay a part-time program coordinator and continue to have our part-time

administrative assistant. Increased membership is important to successful grant applications and helps to show continuing and expanding community support to PEEC to the Los Alamos School Board and others with an interest in our success.

Here are three simple ways to help PEEC expand upon our successes. First, you can make sure that your membership dues are paid up to date. Second, you can encourage your friends to join PEEC. Third, you can get more involved in PEEC as a volunteer, donor, or member of the Board of Directors. The election of the new officers for the PEEC Board will be happening October 21 at the PEECnic. I hope to see you there.

We appreciate your interest in PEEC and your continuing support. If you have any comments or suggestions, please send me an e-mail at rryti@mac.com.

What's New at PEEC

by Chick Keller

The Center is an ever-changing thing. Every time you enter, things have evolved, been added to, improved. Here are some highlights.

The **main office and gift shop** has had a face-lift and is now much easier to access especially if you want to purchase t-shirts, identification books, maps, or greeting cards. PEEC especially welcomes grandmas since they are always looking for the perfect gift for the kids.

The **library**, largely due to the fine work of Jean McCleary, is now a fully data-based lending library. Just check out at the front desk and don't keep those books too long.

The star living attraction, **Elf the turtle**, has a new tank with better things in it to make him happy. This includes a fairly large procostomus (algae-eating fish), which seems to be able to keep out of Elf's way.

The **plant display, "What's Blooming Now,"** changes weekly as new flowers come into

bloom and others go to seed. More and more folks are bringing in their mysteries and usually can find them in the display.

Martin MacRoberts has created a new **display of NM Important Bird Areas**, with maps, leaflets, a bird quiz, and lots of information.

A **bird board** has been put up inviting visitors to record what they're seeing and comment on birding identification problems already posted.

The **Jemez Mountain Herbarium** is growing rapidly. With high school student Samantha Stutz, we've been able to enter some 100 mounted specimens that the collection lacked. Two high school seniors, Marina Volegova, and Mariya Balarikova, have joined the effort this year. Much work has gone into data-basing a large number (over 200 specimens) and incorporating them into the LANL collection, which has a good main collection but has many partially documented plants. Tuesdays are pretty busy as people come in with sometimes difficult-to-identify plants and plant photos.

The **water-wise garden and lawns** are doing great. There has been a burst of many colors. The deer topped the red penstemon before it could bloom, but that just made it mad and it sprouted twenty stems full of scarlet flowers--quite a spectacle. Powis Castle Sage has grown to nearly 3 feet in diameter and is gorgeous with its blue-gray lacy leaves. We added small white and yellow daisy-like plants that are super bloomers--Blackfoot Daisy and Zinnia Grandiflora. They are native farther south, but we're hoping they'll make it through the winter.

Several bird feeders have been added, bringing new life to the area as the birds come and go. The buffalo grass has filled in nicely and is a wonderful soft light green. The grama grass is growing its lacy stems and gives a light airy feeling. The tough fescue is as robust as ever, nearly indistinguishable from Kentucky bluegrass but much less a water drinker. We've turned off the sprinklers and the entire demo plot is on its own.

Kingsolver's Wisdom

The PEEC Book Club recently read *Small Wonder*, a collection of Barbara Kingsolver's essays. Here's a quotation to reflect upon:

People need wild places.... We need to experience a landscape that is timeless, whose agenda moves at the pace of speciation and glaciers. To be surrounded by a singing, mating, howling commotion of other species, all of which love their lives as much as we do ours, and none of which could

possibly care less about our economic status or our running day calendar. Wildness puts us in our place. It reminds us that our plans are small and somewhat absurd.

The next book club selection is Michael Pollan's *Botany of Desire*. Join us to discuss it on October 17th, 6:30-7:30 pm, at PEEC.

Autumn PEECnic Coming Saturday, October 21

Our annual PEECnic is a great time to meet other PEEC members, share your ideas with the board of directors and enjoy the exhibits and new gardens at the center.

Join us as we honor our fabulous environmental educators who really make PEEC what it is. There will be a program on Central American birds presented by our visiting biologists, photos and videos of PEEC programs like Park Flight. A brief business meeting at the start will elect our slate of directors for 2007.

PEEC members are extraordinary folks! Let's get together and bring families and friends, rain or shine. Refreshments will be served.

Nature Odyssey Program Is a Growing Success

by Robert Dryja

The 2006 Nature Odyssey summer children's program at the Valles Caldera National Preserve and Bandelier National Monument grew significantly from the fledgling program in 2005. Thirty-four students participated in June 2006, coming from Los Alamos and McCurdy School in Espanola.

Students explored riparian biology for three days in the Valle Grande. They saw trout in the springs of the headwaters of the East Fork of the Jemez River as it flows through the Valle Grande. They captured crayfish in the meandering stream of the East Fork. By the still waters of a cattle pond, they saw an elk fawn and identified captured garter snakes.

In their last two days in the Valle Grande, they were introduced to geology. They experienced two literal high points: first, climbing a small extrusion dome, a set of boulders about thirty feet high; and second, hiking over a resurgent dome about 200 feet high. In both experiences, they saw

a variety of rocks, ranging from tuff to obsidian to quartz aggregates.

The Bandelier activities in the second week involved a set of hikes to see different kinds of ecosystems. One hike took the students through old growth ponderosa pine along the shaded north face of the Valle Grande trail. Another hike took them through the grasses and scrub oak of the Burnt



Nature Odyssey kids discover unusual ways to measure a ponderosa.

Mesa Trail. The final day involved a hike along the creek to the cliff dwellings in Frijoles Canyon.

The Nature Odyssey is "fun with a purpose," instilling an appreciation of nature through hands-on learning. All kids are curious about the world around them. The Nature Odyssey allows them to learn about the natural world by experiencing and reflecting on it.

The PEEC Board of Directors is now considering ways to build upon this year's program. For example, a set of weekend environmental science field trips may be organized for middle and high school students. Another possibility is an evening program for viewing nocturnal animals and the stars.

Parade of Gardens Draws Crowds

by Selvi Viswanathan

PEEC's Parade of Gardens held on July 8 was very successful despite a sprinkling of rain. Gardeners and volunteers at the five gardens were delighted to welcome and talk to visitors of all ages.

All the gardens had more than one hundred visitors who asked questions and found literature describing the unique aspects of the garden. The unusual features were xeriscaping, permaculture, water harvesting, native planting, and friendliness to wildlife. The gardeners were Kellers, Mosses, Morris and Jalberts, Viswanathans, and Zemachs. Seeing all five gardens in the three hours allotted proved a challenge for visitors. PEEC volunteers were on hand to distribute information and sell plants donated by Dave Fox of Pajarito Greenhouse as well as gift items and books.

PEEC would like to repeat this success next summer. If you are interested in helping out or have a garden to suggest, please contact Selvi Viswanathan (661-2618 or hariselvi@juno.com) soon since it takes six months or more to organize the event. Carlos Valdez, County extension agent, also helped organize and publicize the tour.

Meet the Roly-poly

by Michele Altherr

They don't bite, aren't slimy, don't slither, and to some of us, are rather cute. You have seen them in your backyard and they are known by several names: roly-poly, pillbug, wood lice or potato bug, to name a few. These tiny creatures can offer children a world of delight and discovery.

First consider these interesting facts. Roly-polies are not insects, but are crustaceans. This means they are related to lobsters, crabs and shrimp. They belong to a very ancient subgroup called isopods with most of its other members living in marine habitats. They actually breathe through gill-like structures and therefore must live in moist places. Some roly-polies are "rollers," that is, they roll up into balls when it is dry or they feel threatened. Others are "hikers" and do not roll into balls, but move quickly to escape sunlight and other threats. These isopods are decomposers who eat decaying leaves, wood and other vegetation. Roly-polies are cold blooded and molt as they grow. The females produce up to 200 eggs, which are carried in a brood pouch under their thorax. When the

babies hatch, they are fully self-sufficient and look like miniature adults.

With simple materials such as a hand lens, stop watch, cups and spoons children can pose simple questions and then test their predictions. Try placing a roly-poly on its back (test both rollers and hikers). Can the roly-poly turn over? Dunk a roly-poly under water for three seconds. What does it do? Hold a sheet of paper a couple of centimeters over the top of a table and place a roly-poly on top. What does it do when it gets to the edge of the paper? Lay out a piece of one-centimeter graph paper and make an "X." Gently set the roly-poly on the "X" and time it for 15 seconds. Count how many centimeters it crosses. How fast does it move? Your child can also test different objects to see which ones roly-polies prefer to hide under: wet cardboard, rotten wood, rocks, big flat pieces of sliced pumpkin and more. Also feel free to come by PEEC and use one of our microscopes to look at a roly-poly up close.

Remember while working with roly-polies that they are small and fragile. So they don't get crushed, transfer the roly-polies using a plastic spoon. Create a temporary "hideaway" while studying them, using a little soil and leaves in a plastic container. Be sure to put small holes in the lid and to keep the hideaway damp, not soaked.

Once children start getting to know these ancient creatures, they'll think of even more exciting questions to explore. As always, have fun discovering nature's secrets with your child.

Park Flight Bird-Banding Project Underway

by Rebecca Shankland

For the third year, the bird-banding project in the upper section of Bandelier brought school classes to observe wildlife biologists at work studying migratory birds.

Through a grant from the Park Flight program of the National Park Foundation, PEEC was able to fund transportation costs for groups of 4th through 6th graders to visit the research area for a morning of nature activities. The highlight for many classes was having a child hold and release a banded bird to wing its way onward for migration.

Two Central American interns, Pablo Herrera from Guatemala and Marvin Torrez from Nicaragua, assist Stephen Fettig from Bandelier. They are getting help at the banding table from

PEEC volunteer Michael Redondo and several bird experts in the area.

Pablo and Marvin created a power-point presentation with interactive elements for pre-trip classroom visits where children learn some geography as well as the purpose of the bird-banding research. Children especially enjoy "banding" their teacher with a paper leg band and figuring out how far an Arctic tern migrates in its lifetime.

Within a week of sending out letters of invitation to regional schools, including Jemez Pueblo and Tesuque Elementary, all the available slots for field trips were filled. The trips took place on Thursday and Friday mornings throughout September.



Pablo Herrera from Guatemala and Marvin Torrez from Nicaragua talk about the age and sex of a Townsend's Warbler. (Photo by Stephen Fettig)

How To Discourage Bees at Your Hummingbird Feeder

PEEC board member Selvi Viswanathan wrote to Dan True, noted hummingbird expert, about her problem with having bees getting into her hummingbird feeders. Dan True replied:

The easiest way to discourage bees is to thin your sugar water ratio. Generally, bees ignore a 5 to 1 mix. That mixture will not cost you a single hummingbird...I have a friend in Silver city who feeds a 7 to 1 mix, and has at least 1,000 hummers....and not one bee.

*Happy humming,
Dan & Diane True*

PEEC Seeking to Hire Teachers for Older Kids

PEEC is now hiring experienced and creative teachers who enjoy developing and implementing educational nature programs for kids 9 years old and up. Programs may be designed for after school or weekends. They can be offered one at a time, once a week, or once a month. PEEC believes that exploring nature with young people nurtures life-long connections. If this is your vision too, contact Michele Altherr to set up an interview (M.altherr@laschools.net).

Nominations for PEEC Board of Directors

PEEC is seeking enthusiastic and energetic members of the Northern New Mexico community to join our Board of Directors and help connect people with the natural world at our back door. Persons interested in getting more information about the PEEC Board of Directors should contact the Jody Benson (nominating committee chair, jbenon@lanl.gov) or Randy Ryti (PEEC President, rryti@mac.com).

Fall Children's Programs at PEEC

All programs require advance registration by calling 662-0460, stopping by PEEC, or using the Web site (www.PajaritoEEC.org).

Mommy and Me: Marine Discovery Series

Discover the wonders of the ocean and introduce your child to letters, numbers, shapes and textures through stories, songs and activities. Bring your child age 0-5 years and join the fun. Daddies are welcome too. This class is taught by Diana McPherson and Mike Penovich, both of whom have worked for the aquarium in Albuquerque. Classes are held on the second Saturday of each month. Each class is \$8 members, \$10 non-members, and \$5 for additional family members. Register for the whole series (Sept. 9, Oct. 14, Nov. 11, Dec. 9) for \$29 for members and \$36 for non-members. Attending parents are free.

Ocean Numbers

Saturday, October 14, 9:30-11am
"1 little, 2 little, 3 little seahorses...." Have fun learning numbers and counting ocean animals.

Ocean Alphabet

Saturday, November 11, 9:30-11am
A is for anemone, B is for bat ray. Learn the alphabet as we learn ocean animals.

Ocean Textures

Saturday, December 9, 9:30-11am
Feel a sticky anemone, a bumpy sea star, and slippery seaweed.

Monthly Science Fun for Preschoolers

Cindy O'Hara will start a new series of her popular science classes for children ages 3-6. By participating in activities, crafts, and stories, children can explore the world and connect what they learn to what they already know. Each month a different topic has been chosen to encourage children to make observations and ask questions, learn through hands-on activities, and become more curious about the world around them. If your preschoolers enjoy exploring, observing, and interacting with the environment around them, then have them join Cindy's fascinating science classes. Each class: \$8 members, \$10 non-members, \$5 for additional family members. Discount for all four classes.

Air Is Everywhere

Wednesday, November 8, 1-2:30 pm
Children will observe that air occupies space, will see the effects of air pressure using things we find in nature, and will also use all the senses to find air and wind. We will be using materials found on the hiking trail along with balloons, bubbles, paint, and parachutes to conduct our experiments.

Adventures with Shadows

Wednesday, December 13, 1-2:30 pm
Children will learn about light in this class. They will learn how shadows are created, observe the effects of the sun, and use light and shadows to make unique pictures. They will also learn that light contains many colors, and use prisms and aquariums to see the colors in light.

Do You Hear What I Hear?

Wednesday, January 10, 1-2:30 pm
Children will explore how sound travels through many things (including water). We will also observe that sounds are made when something vibrates. We will use our sense of hearing to find the many sounds made by different size objects. We will play games with items we find outside to be able to name different sounds. We will also create our own noise makers using a variety of materials.

Nature Notes and Questions

compiled by Becky Shankland

Millipedes

In mid-August, a hike down the Red Dot Trail was enlivened by the sighting of 64 millipedes, the brown, worm-like creatures with a hard exterior and over 80 feet (not the 1000 of their name). We've never seen so many and we assume it's a result of the rains. According to Wikipedia, these arthropods are non-venomous (unlike the centipedes), called detritovores because they eat dead vegetation by moisturizing it and then scraping it into their mouths with their jaws. For defense, they curl up in little circles to protect their vulnerable legs. Walkers in White Rock Canyon often spot the white leftover "skeletons" of these creatures. *Question: Why were there so many millipedes this summer?*

Mistletoe and Bluebirds?

Dave Fox heard a TV program (UCTV) discussing the possibility that Western Bluebird populations increase with proximity to mistletoe, though he wasn't sure what kind of mistletoe was in question. We have several kinds in Los Alamos, living on ponderosa, juniper, oak, Douglas fir, and pinyon.

Does anyone know more about this relationship?

Twinflower—the Flower with a Famous Pedigree

Occasionally in the Jemez Mountains one spots a ground-creeper with twin pink flowers, nodding modestly on a short stalk, called twinflower (*Linnaea borealis*). Recently a friend who had visited Sweden mentioned visiting the home and garden of Linnaeus, father of the binomial method of species classification. She noted that he had a set of china painted with his favorite flower, twinflower, the same species that we enjoy in the Jemez.

For a photo and other information, visit http://www.ubcbotanicalgarden.org/potd/2005/06/linnaea_boreali.php

Evidently it's a European as well as an American treasure, since it has the following names: Linnée (Qué), Linnea, giktgräs (Swe), Linnea (Nor), Linnæa (Dan), Vanamo (Fin), Moosglöckchen (Ger), Lus Linneuis (Gaelic). And Robert DeWitt Ivey, author of the wonderful *Flowering Plants of New Mexico*, quotes Linnaeus as describing twinflower as "lowly, insignificant, flowering for only a brief time, like himself."

2006--Year of the Mushroom

Although we never found a mushroom expert to give a talk, PEEC now has a marvelous CD with this year's mushrooms in glorious color, produced by Mark and Linda Wells and family. Identifications are underway thanks to Bob Williams. We hope to have the Wells CD available for viewing and purchase after the photos are labeled.



The spectacular and poisonous red Fly agaric, Amanita muscaria (photo by Don Machen)

Mushrooms

by Sylvia Plath

Overnight, very
Whitely, discreetly,
Very quietly

Our toes, our noses
Take hold on the loam,
Acquire the air.

Nobody sees us,
Stops us, betrays us;
The small grains make room.

Soft fists insist on
Heaving the needles,
The leafy bedding,

Even the paving.
Our hammers, our rams,
Earless and eyeless,

Perfectly voiceless,
Widen the crannies,
Shoulder through holes. We

Diet on water,
On crumbs of shadow,
Bland-mannered, asking

Little or nothing.
 So many of us!
 So many of us!

We are shelves, we are
 Tables, we are meek,
 We are edible,

Nudgers and shovers
 In spite of ourselves.
 Our kind multiplies:

We shall by morning
 Inherit the earth.
 Our foot's in the door.

September Flower Hikes

An enthusiastic crowd joined Chick Keller to admire the multitude of wildflowers produced by the summer rains, focusing on the road edges between White Rock and Ancho Canyon. Another assemblage joined Dorothy Hoard for a hike on Burnt Mesa.

Thanks to lots of sharp eyes, we compiled a lengthy list of species seen. Anyone may e-mail shankland@cybermesa.com to request a copy of the

list electronically or visit PEEC's herbarium for a hard copy.

Fall Programs: Stay Tuned!

Coming this fall will be a number of new or returning programs on topics such as repeat photography, sustainable projects at Picuris Pueblo, fly-tying, snakes, and more. Stay tuned-in by enrolling in our PEEC Alerts, visiting our web site and visiting the center.

We welcome suggestions for topics that you'd like to know more about. If you want it, we'll do our best to make it happen. Suggestions for good speakers or nature-walk leaders are also most welcome. Send suggestions to center@pajaritoeec.org or 662-0460.

Kinnikinnick Club Fall Meetings

Kinnikinnick Club, our club for children ages 6-12, is back to meeting first and third Mondays of each month, except holidays, from 4:15 to 5:15 p.m. at PEEC. Our experienced and enthusiastic teacher is Rachel Cowan. The charge per year is \$30 for the first child and \$20 for the second child in a family, or \$27 and \$18 for PEEC members.

Membership in PEEC

PEEC members receive the PEEC Newsletter, electronic updates with PEEC Alerts, library check-out privileges, plus discounts on classes and gift shop

	General Membership	\$35
	Living Lightly	\$20
	Penstemon <i>Benefits of membership plus t-shirt or canvas shopping bag</i>	\$60
	Sunflower Donor <i>Benefits above plus an additional t-shirt or canvas shopping bag.</i>	\$100
	Wild Iris Donor <i>Benefits above plus Muench coffee table book.</i>	\$250
	Skyrocket Gilia Donor <i>We will contact you to determine how to recognize this generous level of donation.</i>	\$500
	Wood Lily Donor <i>We will contact you to determine how to recognize this generous level of donation.</i>	\$1000

Joining Is Easy

Tear off this form, fill it out, and mail it in with your check. Do it today! Thank you.

Name(s): _____

Address: _____

Phone: _____

Number in household: _____

E-mail: _____

Please contact me about volunteering.

PEEC is a non-profit 501(c)3 organization. Donations are tax-deductible.

Mail checks to PEEC, PO Box 547
 Los Alamos, NM 87544,
 Att: Membership

