



Nature Notes

Pajarito
Environmental
Education
Center
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Your Nature Center in Los Alamos
Spring 2007

PEEC, PO Box 547
Los Alamos, NM 87544
505-662-0460
PajaritoEEC.org
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3540 Orange St.
Open T-F, 12-4,
Saturday, 10-1

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President's Message

by Randy Ryti

The Pajarito Environmental Education Center is making its final preparations for Earth Day 2007 celebration "Think a Bright Green Future." In addition to the events on Saturday April 21st we will be having our second annual Earth Day Benefit Dinner on April 22nd. Our speaker for the dinner is New Mexico State Parks biologist Steve Cary, and Steve will be talking to us about butterflies.

At last, those of us with an interest in the charismatic or not so charismatic microfauna will have a spokesman. My personal interests in invertebrates likely dates back to my youth but it is now time to admit that I was awarded an advanced degree for the study of desert insects. To be more specific, I was studying ants in the California desert for many years while pursuing a degree at UC San Diego.

Steve's talk is also timely because another order of insects

has been getting attention in the press lately and unfortunately the news does not bode well for people. On March 2nd the New York Times published an op-ed piece titled "Losing Their Buzz" and CNN/Money published an article titled "The mysterious deaths of honeybees" on March 29th. The subtitle of the second piece is even more ominous, "honeybee colony collapse drives price of honey higher and threatens fruit and vegetable production." The concern is that beekeepers have lost 50 to 90% of their honeybee colonies over the last six months, and honeybees perform the key ecological function of pollination, in addition to providing honey and beeswax.



So here is a clear connection of people to the natural world –in all of our backyards. To

borrow an idea from many others, it seems like it is time for people to better understand the little things that run the world – for those interested in learning more about invertebrates I recommend two books – Sue Hubbell's *Waiting for Aphrodite* and Deborah Gordon's *Ants at Work*.

What are YOU doing for Earth Day?

Earth Day is a time for us to consider our way of life, our aspirations, our philanthropy – an opportunity to do something. If we're going to make differences in the world, we need to make changes in our lives – whether it's taking public transportation or making our homes more energy efficient. If we are going to save a living planet that supports people around the world, then we need to make commitments to change our lifestyles and create sustainable livelihoods for others. This challenge includes preserving our fisheries, saving ecosystems like the Amazon, and stopping global warming.

Carter S. Roberts, President, World Wildlife Fund,
WWFocus, March-April 2007.

Earth Day 2007 :

Think a Bright Green Future

by Peter O'Rourke

Our main event is the Earth Day Festival, which will take place on April 21 from 10 a.m. to 2 p.m. at the PEEC Nature Center. The festival will feature over 20 displays by local civic and environmental groups that will stimulate your thoughts on this year's theme "Think a Bright Green Future." Entertainment will be provided by Clan Tynker, a Renaissance minstrel group with acts that appeal to all ages.

Numerous hiking opportunities will be available on both Saturday and Sunday. There will be two short nature walks starting from PEEC on April 21 at 10 a.m. and at 2 p.m. during the Earth Day Festival. There will also be a Fire Ecology hike on Sunday, April 22, at 10 a.m., starting at Ponderosa Campground, and a White Rock Canyon Petroglyph hike on April 22 at 1 p.m. For details about these hikes, please see the Earth Day supplement or PEEC's website.

We want to gratefully acknowledge the sponsors of this year's Earth Day - Los Alamos National Bank, Los Alamos Commerce and Development Corp. (MainStreet), Los Alamos County, North Wind, and Los Alamos National Laboratory.

PEEC Benefit Dinner Features Gourmet Menu and Talk on Butterflies

Steve Cary, noted butterfly specialist and chief naturalist for the New Mexico State Parks, will be entertaining diners with his photo-essay called "Butterflying the New Mexico Landscape" at PEEC's benefit dinner on Sunday evening, April 22, beginning at 6 p.m.

The dinner is at Central Avenue Grill and features a four-course organic dinner. People may mingle and enjoy appetizers at the silent auction in the newly decorated back bar room before sitting down for the rest of the meal and the talk.



Tickets are available at Brownell's Hallmark Store and at PEEC, 3540 Orange Street (662-0460). Individual tickets for the four-course meal, non-alcoholic drinks, and the talk (the bar is no-host) are \$50, and corporate tables are also available. For the latter, contact Randy Ryti: rryti@mac.com

Steve Cary's Butterflies in Color

For a beautiful preview of Steve Cary's photographs, go to an article entitled, "Butterflies of Southern New Mexico," by Pam Hendrickson, courtesy of New Mexico State Parks and New Mexico Game and Fish, at www.desertusa.com/mag01/apr/main/butter.html. Among many facts and photos are a few myths, such as those below.

Since antiquity, humans have had butterflies on the brain. Whisper a wish to a butterfly, Native American legends say, and your wish will come true. For many cultures, butterfly wings are seen as the image of immortality and eternal life, also of joy. Butterflies have been symbolic of fragility, beauty, freedom and spiritual awakening.

Early Greeks considered butterflies to be dead people's spirits. In many countries, pictures of butterflies can be seen on tombstones. In Finland some people believe the butterfly soul of a dreaming person flutters peacefully above the bed, and the Germans say a person in love has "butterflies in the belly." ___/2

Kids Gardening

By Branden Willman-Kozimor

It is time to start planting. A new garden will be located at the southwest corner of the nature center and kids will be the gardeners. Tool donations are needed.

This summer PEEC will offer classes in organic gardening for kids in grades 3-8. Class activities will include topics such as seed starting, composting, vermiculture (worm composting), garden bugs “friends and foes,” using water responsibly, identifying plant parts, preparing foods from the garden, making a human sundial, and making garden art from recycled materials.

Classes will begin Tuesday, June 5, 2007, and will meet from 10-11:30 AM. Kids in grades 3-5 will meet on the first and third Tuesday of the month while those in grades 6-8 will meet on the second and fourth Tuesday. Sign up for kids gardening on the website or by calling the PEEC office. There is a \$30 registration fee for those not currently members of the Kinnikinnick Club.

Please call Branden Willman-Kozimor 505-320-0962 or leave a message at the PEEC office if you are able to donate any of the following tools and/or garden supplies.

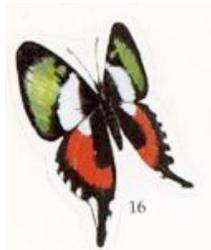
- *Garden hoses
- *Seeds
- *Deer fencing
- *Clear plastic sheeting
- *Drip line or soaker hoses
- *Garden tools (shovels, forks, hoes, rakes, etc.)
- *Seed starting containers (used or new)
- *Hand trowels
- *Transplants
- *Row covers
- *Tomato cages
- *Tool shed



Becky Shankland, a founding board member of PEEC has been named a Living Treasure of Los Alamos in recognition of her wide contributions to organizations and progress. We've always known that

Becky is a treasure, so it's good to see others recognizing it, too.

Congratulations !



Spring in the Garden and the House

by Natalie Steinberg

While we're waiting for the grass to green up and the garden to sprout, here's a tip for bringing spring into the house.

NASA has recently completed a study of the effect of houseplants on indoor air quality. They determined that indoor plants can absorb airborne chemicals which are commonly found in homes and offices. Among the best plants for this purpose are dieffenbachia, peace lily, spider plant, rubber plant, and philodendron. PEEC has three spider plants which only need watering once a week. We also have baby “spiders” keeping the air nice in our frog and salamander tanks.

For ideas on planting drought-tolerant perennials and grasses, stop by PEEC to see what's coming up in our demonstration garden. We have three grass plots: dwarf fescue, blue grama and buffalo grass. The latter does not begin to green up until late May. Blue flax and creeping mountain alyssum should be our early bloomers. The alyssum is a yellow blooming ground cover and the flax is a native which often re-seeds, giving you more plants.

All of the perennials in our garden can be watered as little as once a week during the hottest days of summer. When Xeric perennials are first planted they need frequent watering to help get the roots established. Then it takes one to two growing seasons for a plant to grow the kid of extensive root system that enables it to withstand dry conditions.

The Pajarito Plateau where we live is basically a semi-arid landscape with little early summer rainfall. We should all be aware of conserving the water resources we have.



All I ever see are glimpses, and those glimpses are often contradictory. Yet somehow, I think I know truth when I see it. And when I see it, it tends to appear in the company of simplicity, humility and beauty. —Roderick MacIver /3

Family Science Experiment: Check the Shower!

By Michele Altherr

The Problem. Sometimes when visiting a farm you can still find a small red hand-pump in the yard. Many years ago families got all their water for cooking and cleaning from this pump. Families who used these hand-pumps couldn't help but conserve water, in part because hauling the water inside wasn't very convenient.

Nowadays we have faucets in our homes that give us water on demand. What do you think happened to a family's water usage with this change? Yes, with increased convenience there was a decrease in conservation of good clean water. When you turn on a typical faucet and take a five-minute shower, you probably use a whopping 25 gallons of water. Imagine having to haul that from your hand-pump to the house before taking a shower!

The Solution. Today, people who want to help conserve water can buy low-flow shower heads. These shower heads add air to the water and cut the amount of water used from five gallons a minute to two-and-a-half gallons a minute. In a year's time you could cut your shower water usage from 10,000 gallons to 5,000 gallons. That's "shower power"!

The Experiment. Now, are you wondering if you are using too much water in your shower? Try this test with your parent. You'll need an empty half-gallon box-type milk carton and a watch with a second hand. Open up the top of the milk carton so it forms a square. Turn on your shower and get in (not with your clothes on, of course!). When the adult with the watch says GO, hold the milk carton up to the shower head; keep it there for 10 seconds. (The adult will tell you when time is up). If the carton overflows in less than 10 seconds, your shower head uses too much water. It's time to consider a low-flow shower head and put "shower power" to work helping you to conserve water. You'll be doing something to help the Earth.



Butterfly drawings are by Jan Sovak, Dover Publications, 2000

Nature Odyssey: A Summer 2007 Nature Camp for Kids

by Bob Dryja

Does your child love to explore nature, to be outside and to unravel mysteries of science? If so, register him or her for this summer's Nature Odyssey for the opportunity to explore several of New Mexico's natural landmarks under the guidance of outstanding teachers.

Choose from three five-day sessions: Valles Caldera National Preserve, Bandelier National Monument, and Espanola's Wildlife Center. Each day sessions will begin and end at PEEC, and run from 9am to 4pm. Activities are tailored for two groups: late elementary (students entering 4th - 6th grade) and middle school (students entering 7th -8th grade).

Each session takes advantage of a new spectacular location. The first session, June 4-8, takes students into the Valles Caldera National Preserve to explore old-growth forests, streams, volcanic rocks, historic cultures and more. The second session, June 11-15, focuses on Bandelier National Monument for adventures in meadow ecology, stream monitoring, petroglyph explorations and more. The final session, June 18-22, involves students with the Espanola Wildlife Center and understanding of wildlife, the Rio Grande and historic cultures.

The Nature Odyssey is made possible by PEEC, the Pajarito Environmental Education Center. The cost for each week is \$350 with several discounts possible: PEEC membership, early registration, additional siblings, and multiple weeks. The fee includes educational activities and materials, transportation, and a t-shirt. Day care will be available for the hour before and after the camp for an added fee. To enroll, call PEEC at 662-0460, e-mail at Center@PajaritoEEC.org or visit the center at 3540 Orange Street between noon and 4pm Tuesday - Friday and Saturday 10am - 1pm. The number of openings is limited, so register early.

A Whiptail Lizard Has Come to PEEC

by Esta Lee Albright

Taking up residence in PEEC, she explored her new habitat by scampering around and digging in the substrate. Quickly she learned about her “hide” and about a myriad of things to watch outside her glass-walled home, such as people bringing her crickets and worms to eat.

After much wondering and research, we have determined this is a Plateau Striped Whiptail, *Cnemidophorus velox*. The Little Striped Whiptail and the New Mexican Whiptail (our state reptile) look quite similar. In addition to delicate light and dark brown stripes down the back, these whiptail lizards have a comparatively long tail, and it's blue!

Diurnal (active in daytime) and energetic, she is a fascinating addition with an educational mission. This lizard and another were saved by a local family. Whereas it always is best to leave a wild thing in its own habitat, these lizards had lost their rocks and grassy areas to new shopping and office complexes in Santa Fe. Each was found in poor condition, wandering a concrete area without food or water, and with no hope of finding any in the hallways of new buildings. Now, after long care, one of them is a PEEC member. Our whiptail carries the reminder that loss of habitat can be fatal to individuals and whole species.

Whiptail lizards, according to the American Museum of Natural History, are one of the greatest mysteries of nature. The reason we know our lizard is a female is that it is part of an all-female species. Most products of crossbreeding, such as the mule, are sterile. But this whiptail, as well as several other all-female species of whiptail lizard, does reproduce, and all of its offspring are female. Moreover, it reproduces by *parthenogenesis* – its eggs require no fertilization, and its offspring are exact and complete genetic duplicates of the mother.

Scientists understand only partially how this reproductive mode developed, and it raises many

questions. One of the most intriguing is how this cloning affects the lizard's ability to adapt to environmental changes. Since there is no genetic variation except that which occurs through mutation, these whiptails cannot evolve as other species do.

The whiptail lizard offers an extraordinary opportunity to learn more about the role of sperm in fertilization, as well as about cloning. Through this anomaly, scientists may learn more about the norm. (Source: www.amnh.org)



Cnemidophorus velox, Plateau Whiptail Lizard

Name Our New Lizard!

Choose a name for our new whiptail lizard. PEEC is holding a contest. The name should be appropriate for a female lizard that is lively, colorful, and a local species. Her name will appear on her “fact sheet” beside her home and in all of PEEC’s articles, conversations, and admiring murmurs.

Send your suggested name to PEEC’s email address: center@pajaritoeec.org or through Snail Mail to PEEC, P O Box 547, Los Alamos, NM 87544. If your choice wins, you will receive a magnet with her photo and a special lizardy prize.

We must receive your entry by June 1, 2007.

Editor's note: New editors of *Nature Notes* are Esta Lee Albright (e-mail: estalee@whalesail.com) and Heather Burke (e-mail: help@pinonpc.com), a mother-daughter team. We'll be happy to receive comments and suggestions.

Wildflower Classes Offered This Summer

By Dorothy Hoard

Winter is gone; spring and summer are on the way. With all the moisture last winter, flowers along roadsides and trails throughout the area will soon burst into bloom. If your curiosity is piqued, you will soon wonder, "What is that flower called?" The best way to learn more about local flowers is by taking a class at the Pajarito Environmental Education Center. Look at your calendar and plan ahead.

This summer, PEEC sponsors two classes offered by Terry Foxx and Dorothy Hoard, authors of *Flowering Plants of the Southwestern Woodlands*. Classes are open to anyone who is willing to observe; no experience is necessary. The first class, "Flowers of Spring and Summer," meets Tuesdays June 5-26 and July 10 from 5:30 to 7:30 p.m. The second class, "Flowers of Late Summer and Early Fall," will be held in August and September, depending on blooming times. All sessions of the classes will be outdoor field trips except the first one, which will provide an introduction to the principles of plant identification. Field trips to various altitudes and habitats will follow the flowering seasons of the various life zones of the Jemez region near Los Alamos. Emphasis is on teaching students to independently identify all types of plants, whether trees, shrubs, weeds, or pretty flowers. Students will visit some areas burned in the Cerro Grande Fire to investigate the role of plants in fire recovery.

In addition, Hoard and Foxx offer a class specifically on grasses entitled "Beginning Identification of Grasses" Tuesdays July 17-August 14 from 5:30 to 7:30. Classes will begin at PEEC because of the need to use microscopes, but will include near-by field trips.

Tuition for each class of five sessions is \$55 or \$50 for PEEC members. Classes have a minimum of seven students and a maximum of twenty. Tuition will be refunded in case not enough students register.

Terry Foxx and Dorothy Hoard have teamed together to teach wildflower classes for over thirty years. Terry is an ecologist with experience in botany and conservation ecology; she has taught at UNM-LA, Ghost Ranch, and College of Santa Fe. Besides *Flowering Plants of the Southwestern Woodlands*, she has written *Out of the Ashes, A Story of Natural Regeneration*, and is a well-known storyteller. Dorothy Hoard has written and illustrated several local guides to trails and natural history, including *Los Alamos Outdoors* and *A Guide to Bandelier National Monument*.

Further information visit the PEEC web site (www.pajaritopeec.org) or call Terry Foxx (672-9056, storyteler@comcast.net) or Dorothy Hoard (662-2662, dorothyh@swcp.com)



PEEC Science Fair Winners

On January 27 at the Los Alamos Regional Science Fair, Randy Ryti presented the PEEC special awards for projects on the environment. Recipients and title of their projects were the following:

- ✿Stoyana Alexandrova & Iliana Alexandrova, 11th grade, "E. coli in Hostile Environments"
- ✿Emily Powell, 12th grade, "Mushrooms and Toxins"
- ✿Jinhie Skarda, Mountain, 6th grade, "Would You Drink This?"
- ✿Nate Clements, Middle School, 7th grade, "A Comparison of Soil Microbes in New Mexico"
- ✿Holly Erickson, Chamisa, 6th grade, "Miraculous Moringa: The Natural Water Purifier"
- ✿Kristin Funston, Barranca, 5th grade, "Trees Built for Snow"
- ✿Emma Lathrop, Aspen, 5th grade, "At What Temperature Do the Birds in My Backyard Eat"
- ✿Anna Zerkle, Barranca, 5th grade, "What is the Best Environment for Earthworms"

Kids Get Involved with Jane Goodall's Roots and Shoots Program

by Michele Altherr

“The future looks grim,” Dr. Goodall said to a small gathering of about 100 at Santa Fe’s new Humane Society and Animal Shelter. She continued, “It is the determination of our young people that will make the difference to our future.” A banner for Roots and Shoots hung behind her as she spoke while children from various groups throughout New Mexico fanned out in front of her and listened attentively. They understood the individual’s power to make a difference through their involvement in the Jane Goodall Institute’s Roots and Shoots service-learning program. As a result these children will look to the future and feel empowered, not overwhelmed and hopeless.

A small group of eight children from Los Alamos attended the event with me (Melanie Boncella, Emily Pittman, Tristan Goodwin, Laura Whicker, Nicole Graham and Tessa, Olivia and Niccolo Snyder). They quickly got a sense of the importance the institute places on the role of children in the future when Dr. Ray Powell, executive director of the Four Corners Roots and Shoots Program, and education director Bonnie Schmader asked two of my students, Laura Whicker and Emily Pittman to speak on stage about Jane Goodall. At that instant their frozen expression was a bit of awe and a bit of fear . . . fear of going on stage and fear of not jumping at the opportunity. They spent the next 15 minutes outside the tent rather stoically thinking about what to say. When they appeared at the podium after the Lieutenant Governor, the Mayor of Santa Fe, the head of State Parks and other dignitaries, they spoke with the truth of childhood. They were inspired by Jane Goodall’s work and the chimpanzee’s marvelous use of tools and abilities to show compassion. I watched Jane Goodall at her seat and could see her eyes glow. Laura and Emily were an affirmation of her life’s work, which has spanned some sixty years.

Roots and Shoots youth groups start community gardens, help the elderly or volunteer at animal shelters. Some are involved in establishing tree nurseries or a reusable bag campaign. One of the New Mexico groups raised \$5000 to send a group of institutionalized chimpanzees to an island habitat to live out the rest of their lives. The projects that a Roots and Shoots group take up are varied and are limited only by the imagination and dedication of its members. Anyone interested in starting a Roots and Shoots group, both youth and adult helpers, should contact Michele Altherr soon <maltherr@cybermesa.com> or 663-2365. To learn more about Roots and Shoots view the Jane Goodall DVDs on hand at PEEC or to go the web site at <http://www.rootsandshoots.org/>

From the web site: The Roots & Shoots program is about making positive change happen—for our communities, for animals and for the environment. And it all starts with you! With tens of thousands of young people in almost 100 countries, the Roots & Shoots network branches out across the globe, connecting youth of all ages who share a common desire to help make our world a better place. This powerful, youth-driven network fosters a fun, flexible and supportive environment where young people and adults alike come together to share ideas and inspiration, implement successful community service projects and participate in special events and global campaigns



Jane Goodall mingles with kids from Los Alamos and Northern New Mexico.

PEEC
 Pajarito Environmental Education Center
 3540 Orange St.
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 Los Alamos, NM 87544

Connect with PEEC

Visit the Center.

Become a member.

Check the website often:

www.PajaritoEEC.org

Read *PEEC This Week*:

If you have an e-mail account and when you are a member in good standing, you can receive ‘PEEC This Week.’ Send a message to Randy Ryti: rryti@mac.com

Weekly e-mail alerts about classes, events, science and the environment will reach you. You can contribute appropriate notices by sending them to Randy. ‘PEEC This Week’ always includes PEEC activities !

Membership in PEEC

Members receive Nature Notes, electronic updates (PEEC This Week), library check-out privileges, discounts on classes and gift shop.

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

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
 Attn: Membership
