



Nature Notes

Pajarito
Environmental
Education
Center
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Your Nature Center in Los Alamos

Winter 2008

PEEC, PO Box 547
Los Alamos, NM 87544
505-662-0460

PajaritoEEC.org

Location

3540 Orange St.
Open Tue. -Fri., 12-4 pm,
Saturday, 10-1

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President's Message

by Randy Ryti

I am writing this short message on the shortest day of the year – the Winter solstice. The short days of winter make it more difficult to rise in the morning; some of us long for the longer and warmer days to come. For others, the short days provide welcome relief from the heat of summer and opportunities for winter sports. Early winter usually includes more time with family and friends. We also tend to reflect on the past year as one calendar is nearly complete and another waits.

My personal reflections include how our seasonal landscape provides such wonderful variety. We have evergreen trees that are flocked with each new snowfall. Deciduous trees and shrubs are currently dormant but will draw a variety of animals in the warmer months to come. The physical landscape also ranges from mountaintops to valleys and rivers. This environment is why many of us have chosen to live in Northern New Mexico.

Variety is important to us at the Center. Our programs must be varied enough to attract and retain your interest. We must also address a wide range of ages, interests, and abilities. In winter, we emphasize indoor programs but connection with the fresh air is important all year long.

Our sources of funding are also varied. We get income from members, corporate sponsors, foundations, and through sales and classes. In-kind support from the Los Alamos Public Schools and our many volunteers is greatly appreciated. To all our members and supporters, I thank you for your varied contributions in 2007 and I look forward to an outstanding 2008 for everyone. I would appreciate your thoughts on this message, please send an email to rryti@mac.com to share them.



HOW TO SUPPORT PEEC PAINLESSLY

by Becky Shankland

Online membership renewal and donations
We now have an on-line option to make re-
newing memberships and making donations
easier: <http://www.pajaritoeec.org> and click
on **Donate Online** on our home page, or go to
www.pajaritoeec.org/4a_membership/donate.html
Locals Care

For many years economists having been arguing
that the way communities can sustain their
economy is by spending their money with local
businesses rather than chain stores whose profits
go to other states. The Los Alamos National Bank
and local merchants have started the Locals Care
program: use your card to buy from participating
businesses, and the business donates a small
amount to the non-profit group that you choose to
support. You also accrue
points for yourself, so everyone wins.

All you do is go to the Locals Care web site
(<http://www.locals-care.com>); if you have a
LANB credit or debit card, register your card on-
line and choose Pajarito Environmental
Education Center #124 as your designated non-
profit. If you do not have a LANB credit or debit
card, then you can obtain a Locals Care card and
use it along with cash or any kind of credit card.
One PEEC board member got a card at LANB in
Santa Fe: they will be available here in February.
Then go out and start shopping to benefit PEEC,
the participating merchants, and yourself!

Remember that the local businesses are
counting on increased business to enable them to
earn enough to help the non-profits that also
enrich our community. The only way we can
benefit from this new program is if more people
shop at the merchants who are donating to the
non-profits.

You'll find the lists of participating merchants
on the right side of the we page at [locals-
care.com](http://locals-care.com). The list includes the following:
*Ace Hardware de Los Alamos, Bella Cosa
Flowers & Gifts, Brownell's Hallmark Shop, CB
Fox Department Store, Cook'n In Style, Don
Taylor's Photography, Home Run Pizza, Otowi*

*Station Bookstore & Museum Shop, Ruby K's Bagel
Cafe, The Coffee Booth, The Finishing Touch, Upex -
Bennets*

GoodSearch and GoodShop

What if Pajarito Environmental Education Center
earned a penny every time you searched the Internet?
Or how about if a percentage of every purchase you
made on line went to support our cause? Well, now it
can!

GoodSearch.com is a new Yahoo-powered search
engine that donates half its advertising revenue, about
a penny per search, to the charities its users
designate. Use it just as you would any search engine,
get quality search results from Yahoo, and watch the
donations add
up!

GoodShop.com is a new on-line shopping mall
that donates a percent of each purchase to your
favorite cause! Hundreds of great stores
including Target, Gap, Best Buy, ebay, Macy's and
Barnes & Noble have teamed up with GoodShop and
every time you place an order, you'll be supporting
your favorite cause.

Just go to www.goodsearch.com and be sure to enter
Pajarito Environmental Education Center as the
charity you want to support.

And, be sure to tell your friends and family!

Environmental Pow-wow:

Cool Cities/Countries Movement

Watch the paper and PEEC This Week for news of
the Sierra Club's second Environmental Powwow
that will be held on Saturday, March 8, 4-7 p.m. at
the Posse Shack, where numerous groups will be
working on the idea of having Los Alamos become
part of the Cool Cities/Cool Counties movement.

See Sierra Club web pages www.coolcities.us and
www.sierraclub.org for news about this movement to
reduce global warming. "In addition to the principles
embodied in the Cool Counties Declaration itself
(establishing a local greenhouse gas inventory and
the target of an 80 percent reduction in global
warming emissions by 2050), Fairfax County [VA],
has produced a roadmap showing ... actions in seven
key areas: energy efficiency, renewable energy,
greening county vehicle fleets, land use,
transportation, water conservation, and educational
outreach."

Nature Trail Planned to Pueblo Canyon

by Becky Shankland

PEEC's membership survey last fall showed strong support for a nature trail, so several PEEC board members headed for the canyon along Olive Street to begin the project.

Our initial thought was to have a trail that starts at PEEC's Nature Center, parallels Olive Street in the woods to the south of Olive, and connects to the County's trail system near the old sewage treatment plant.

Following this route, we hunted for intriguing bits of geology and flora, listened for birds, and peered up and down to find birds' nests and fire scars. We watched for disturbed and native habitats.

The result of much squinting and tramping was a list of points, which have now been GPSed by Peter O'Rourke. The next step will be creating a proper map to take to Craig Martin for Open Space advice.

We welcome anyone interested in helping with this project to call PEEC at 662-0460. We could use writers, trail builders, and general advice.

Learning in Nature's Classroom

by Branden Willamn-Kozimer

Though it is still cold and snowy outside, it is time to start thinking about summer learning at PEEC. Pre-registration has begun for our Nature Odyssey Summer Science Camps that will take place during the month of June 2008. The Nature Odyssey is a unique opportunity for children entering grades 4-6 to become immersed in nature and learn with talented and enthusiastic environmental educators. Our low student-teacher ratio provides campers with individualized attention. With classrooms ranging from the headwaters of the Jemez River on the Valles Caldera National Preserve to the ancient ruins of Bandelier National Monument to the riverbeds and canyons of the Rio Grande Valley, there is no better place to explore environmental sciences in Northern New Mexico. It is our goal that all students who participate in the Nature Odyssey will take an enthusiastic interest in the natural world.

Students meet each morning at 9 a.m. at the

Pajarito Environmental Education Center (3540 Orange Street in Los Alamos). Pick-up is at 4 p.m. each afternoon. Day care is available for one hour before and after the program for an additional charge. The following camps will be offered this summer:

Rio Grande Valley: June 2-6 Students
experience a variety of ecosystems and cultures in the Rio Grande Valley. Field trips include visits to the Espanola Wildlife Center, pueblos, a dinosaur dig, Ghost Ranch, petroglyphs, as well as a variety of hikes.

Pajarito Plateau: June 9-13 Students
learn about the history and ecology of the Pajarito Plateau from a variety of experts. The week will be spent hiking through ponderosa pine forests, exploring ancient ruins, and learning how the Ancestral Puebloan people farmed, cooked, and built their homes.

Valles Caldera National Preserve: June 16-20
Students become immersed in the history, archeology, ecology, and scientific research of the Valles Caldera National Preserve. Sites will range from the Hidden Valley to the History Grove, to the meandering East Fork of the Jemez River.

Please call or stop by the center to sign up. Registration materials are also available online www.pajaritoeec.org/

(click Nature Odyssey Enrollment at top of page). Please sign up before April 1 for a tuition discount and to secure your child's place in this popular and exciting summer program.



Photo by Sarah Gustafson: learning how scientists at Valles Caldera National Preserve track and monitor coyote.

Angel: a guardian or attendant spirit.

- 950 A.D. Oxford English Dictionary

PEEC has its own angels here in the twenty-first century. This time they are folks who answered PEEC President Ryti's letter about the dismal state of grants for operational funding this year. The letter listed the progress and programs PEEC produced last year and hopes for next year. PEEC projects are in education, awareness and action to improve the world's environment. Our angels are showing a guardianship of that progress, in the spirit of saving and enhancing our world, by giving "min-grants" to PEEC.

| | | |
|-------------------------|---------------------------|--------------------------------|
| <i>Evelyn Petschek</i> | <i>Robert Cowan</i> | <i>William Press</i> |
| <i>Natali Steinberg</i> | <i>Michael McKay</i> | <i>M.M. Charney</i> |
| <i>William C. Davis</i> | <i>Steve Foltyn</i> | <i>Jane Sherwood</i> |
| <i>Bill Priedhorsky</i> | <i>John C. Hopkins</i> | <i>Caroline Mason</i> |
| <i>Jennifer Macke</i> | <i>J & M Buchholz</i> | <i>Becky and Tom Shankland</i> |

Jeffrey Howell and Bill Press
Leonora Midley and Gary Resnick
Kyle and Mike Wheeler
Joseph and Sophie Sapir
Brian and Elaine Jacobs
Kok-Heong and Michael McNaughton
Wendee Brunish and Steve Becker
Ann and Robert Shafer
Peggy and Steve Reneau
Don and Judy Machen
George and Chris Chandler
Randy Ryti and Wendy Swanson
Scott and Suzie Havemann
Paul and Alice Fehlau
and several who asked to remain anonymous

This list will continue in the next issue. Thanks, Angels!

Earth Day 2008

by Peter O'Rourke

PEEC's annual celebration of Earth Day 2008 will be held on the weekend of April 26-27. The celebration will include the Earth Day Festival on April 26, and the PEEC Benefit Dinner on April 27. In addition, during the weekend there will be hikes and talks given by local nature experts.

The Earth Day Festival will take place at PEEC's Nature Center on Orange Street during the day on April 26, and is a fun- and fact-filled event for the whole family.

As in past years, the Festival will have many educational displays by community organizations about the flora and fauna of the Pajarito Plateau, about green consumer products that are available locally, and about ways to help promote a healthy and sustainable environment.

But the Festival is not just educational! There will be numerous food booths by Farmers' Market and other food vendors, and a local entertainment group will provide music and, perhaps, a bit of magic.

PEEC's Benefit Dinner will be held Sunday evening, April 27, and, as in past years, will feature an after-dinner speaker who is a noted nature expert. In keeping with the theme of Earth Day, we try to serve food that is both healthy and raised/harvested in an environmentally sustainable way. All Earth Day events will be announced in a special supplement to the Los Alamos Monitor to be published the week before Earth Day weekend. In addition to detailing the times and places of Earth Day events, this supplement will have many informational articles of a more general nature.

This year's Earth Day Chairman is Peter O'Rourke. If you would like to help with, or participate in, Earth Day 2008, Peter can be contacted at 663-0524 or cfddor@swcp.com.

Earth Day -- April 22

Each year marks the anniversary of the birth of the modern environmental movement in 1970. Among other things, 1970 in the United States brought with it the Kent State shootings, the advent of fiber optics, "Bridge Over Troubled Water," Apollo 13, the Beatles' last album, the death of Jimi Hendrix, and the meltdown of fuel rods in the Savannah River nuclear plant near Aiken, South Carolina -- an incident not acknowledged for 18 years. **It was into such a world that the very first Earth Day was born.** Earth Day founder Gaylord Nelson, then a U.S. Senator from Wisconsin, proposed the first nationwide environmental protest "to shake up the political establishment and force this issue onto the national agenda. " "It was a gamble," he recalls, "but it worked."

(<http://www.earthday.net/resources/history.aspx>)

Family Nature Connection: Hibernation by Michele Altherr

The cold of winter brings harsh conditions for wildlife. Some animals migrate to new areas where food is more plentiful while others stay and adapt to winter conditions. Animals that stay use a variety of amazing strategies that help them cope with low temperatures and food shortages. Mammals grow thick winter coats and birds fluff up their feathers for added insulation. They also look for warm shelters. Cold-blooded animals such as frogs pass the winter in a dormant stage buried in mud at the bottom of a pond. Insects survive the winter in an immature stage or as eggs. Honeybees have their stored honey and beavers have their cache of logs to nibble on during the long winter.

A few animals hibernate and “sleep” right through winter’s food shortages and cold. Although, the “sleep” of hibernation is not at all like the sleep of humans where you move around and are awoken by loud noises. Hibernating animals appear dead and it takes them a long time to wake up enough to even move around.

When an animal begins to hibernate, its body temperature drops very low so that it almost matches the temperature outside. The animal’s heartbeat and breathing slow way down, too. You might be thinking that the animal has to wake up to eat. Actually the animal doesn’t need to because it did enough eating in the summer and fall to last the winter. The animal’s food energy is stored in the form of body fat. For example, a black bear can gain as much as 30 pounds a week in preparation for winter. Stored body fat lasts longer in winter because of the changes to the animal’s body during hibernation. During four months of hibernation an animal uses about the same amount of energy as it would in four days of activity. Now that’s an energy savings!

Locally we have animals that hibernate or go into something similar called torpor. These animals include squirrels, raccoons and skunks.

A hibernating woodchuck slows its heartbeat to three or four beats per minute and its body temperature drops to 38 degrees farenheit. It breathes only once in every 5 minutes.

With your parents help check your body’s heart rate, temperature and breadths per minute. Do this at rest and after activity. Compare your results to the hibernating woodchuck. How many degrees would your body temperature have to drop in order to match the temperature of a frosty winter’s day? Remember that the higher your rates, the more food energy you need to survive. Would you be able to survive winter without eating for four months? The answers to these questions will mostly likely leave you in a state of wonder about the marvels of nature. As always, have fun with nature and science.

Nature News

contributed by Becky Shankland

Green-breasted Mango Hummingbird Put in Zoo

Linda Doolen brought in an article with the latest news in the saga of the male green-breasted mango hummingbird that appeared mysteriously in Wisconsin this past summer. Rarely documented in the U. S., and never farther north than North Carolina, it was a sensation that drew an audience of 700 bird-watchers from all over. When he failed to migrate, he was safely captured, then was taken to the Wisconsin Humane Society and now to the Brookfield Zoo. Some have suggested that he be relocated to a refuge near the Mexican border in hope that he might return to his normal environment.

Sage Grouse--Endangered Species?

A federal judge criticized the US Fish and Wildlife Service's failure to use the "best science" available in making a decision about listing the sage grouse as endangered. One official was found to have used pressure and intimidation to prevent the birds from being placed on the endangered list. (from the New Mexican, December 5, 2007)

Worm Garden

by Jennifer Macke

PEEC has a new “demonstration garden”, but this garden doesn’t need any light. In fact, it’s been planted under a table! This garden grows worms, not plants. So why would anyone want to grow worms?

Raising worms, or “vermiculture”, is the growth of worms in confined conditions. On an industrial level, vermiculture is used to process organic waste or to produce worms and worm castings for commercial sale. On a household level, small worm tubs that can be kept under the kitchen sink, or in the garage, for ecological disposal of kitchen waste. While it may initially sound like a strange idea for anyone to grow worms in their home, the idea is catching on around the world. In Europe and Australia, home “worm farming” is becoming commonplace.

Home vermiculture serves several purposes:

- Ecologically-sound disposal of kitchen scraps, reducing the amount of organic waste going into landfills and wastewater.
- Production of worms to be used as fish bait, and also as food for some pets, particularly birds, reptiles, and amphibians.
- Production of exceptional plant growing medium, in the form of worm castings and compost.

Why grow worms, rather than just use a compost pile for kitchen scraps? Organic waste will surely decompose, with or without worms. In an ordinary compost pile, bacteria, fungi, and other micro-organisms break down the organic material. In vermiculture, worms accelerate the process, and they do it with less smell. Worm castings and compost are reported to have greater plant-boosting properties than bacterial compost. Worms can be grown indoors, or in a garage, making it possible for apartment-dwellers to compost even without an outdoor area. In addition, worms are fun to watch and make a never-ending source of fishing bait!

Doesn’t indoor worm compost stink? Remarkably, worm compost does not smell bad. As long as the worm bin is not given too much waste at once, the worms are very efficient at breaking down trash into a non-smelly soil-like material. If the freshly-added waste is kept well-covered with bedding, a worm bin shouldn’t attract pests, beyond a few fruit flies.

Here at PEEC, we plan to use the worms we grow as food for some of our animals, and some of our children’s classes will continue to learn about worms and vermiculture. We hope to raise awareness of the importance of composting and an appreciation for some of the “lower” creatures that share our world. In the case of worms, these simple creatures perform a tremendous service for us and our planet.

For more information about growing worms, we recommend the book “Worms Eat My Garbage” by vermicompost pioneer Mary Appelhof. A great wealth of information can also be found on the Internet. Or stop by the center, and we’ll be happy to show you the “garden” growing under the table!

PEEC Publications

by Dorothy Hoard

PEEC has reprinted Chick Keller’s “The Twelve Little Composites of Summer.” This 20-page booklet is a sure-fire guide to those maddening little yellow daisy-like flowers that grace our mountains from April through October.

Available in PEEC’s Gift Shop for \$5.00.

This is one of a series of guides produced by PEEC Publications. Also available are “50 Hikes in the Los Alamos Area” and “Shrubs and Trees in their Winter Form: A Key for the Pajarito Plateau.”

Soon to come are “Checklist of Butterflies of Bandelier National Monument” (and Los Alamos), “Trees of the Pajarito Plateau,” and “Common Weeds of Los Alamos.”



Ed. note: Chick Keller’s popular identification guide, history and appreciation of the little composites are enhanced in the drawings by Dorothy Hoard.

The Coming of Winter Bird List

Yard list by Selvi Viswanathan

When we had the winter's first snow, in the late afternoon, I decided to sit in my dining room and see what birds came to the feeders. I was surprised. I saw thirteen varieties of birds at the hopper feeder, feeding on the ground underneath the feeder, and at the suet feeder.

At the suet feeder:

a pair of stunning acorn woodpeckers with shiny black bodies, red on the heads and white wing marks;

northern flickers, four of them, two at a time at the feeders;

a pair of hairy woodpeckers, and a male downy; White-breasted nuthatches and pygmy nuthatches in flocks

At the hopper feeder and on the ground nearby:

canyon towhee and spotted towhee;

Steller's jays, six of them;

dark-eyed juncos, gray headed race;

many house finches.

Later in November, I saw at the bird bath a Townsend solitaire and a chipping sparrow. In December, I saw more juncos, bushtits, mountain chickadees, white-winged doves and most of the birds above. A sharp-shinned hawk came out of the blue, diving near the hopper feeder. All the birds disappeared instantly. Even I was surprised, as it was on the side of the house sheltered by trees.

In summer I did not see robins, but in autumn about twenty robins came and took baths several times in our pond. A lot of juveniles were seen.

The "white board" list of birds in PEEC includes the following birds seen/reported at PEEC and in White Rock.

evening grosbeak

white-breasted and red-breasted nuthatches

curve billed thrasher

bush tits in a flock

pine siskins

Williamson's sapsucker

juniper titmouse

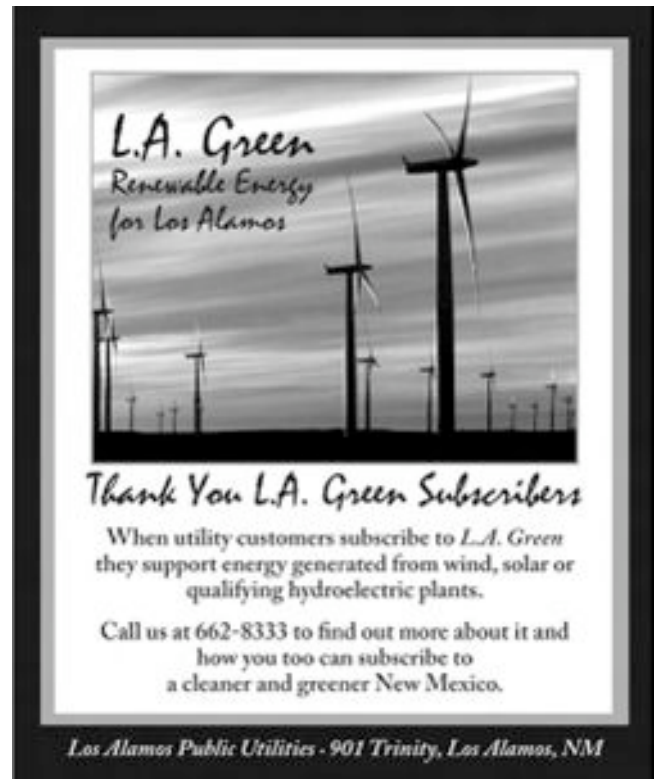
In November, flocks of sandhill cranes flying south and a flock of Canada geese. On October 3, the dark-eyed juncos returned to this area.

New NWF Backyard Certification

By Hedy Dunn

We applied online for the National Wildlife Federation's Backyard Certification in about September. It was a very easy process. They asked a few questions about whether or not we provided food and water, natural habitats which would support wildlife, and safe places to raise young. Since we do all these things, it was easy to say we were in compliance. In addition, we keep our house cat indoors at all times, so birds and small mammals are not threatened. Now we have two attractive plaques stating that we have met the qualifications as a Certified Wildlife Habitat. We hope others will see these plaques and inquire about their meaning. My husband, Skip, has always been an amateur birdwatcher, especially since his younger sister and her husband are well-established ornithologists. Feel free to call us for any other information about this program if you might like to attempt to qualify your home and gardens.

Hedy and Skip Dunn (672-3966)



LASE (Los Alamos Sustainable Energy) Network presents an exhibit inside PEEC about biofuels, wind and solar power and how to start using the right kind of energy.

PEEC
 Pajarito Environmental Education Center
 3540 Orange St.
 P.O. Box 547
 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 |
| Non-Profit Sponsor | \$75 |
| <i>1 Newsletter and PEEC This Week for up to 3 organizational members.</i> | |
| Penstemon | \$60 |
| <i>Benefits of membership plus t-shirt or canvas shopping bag.</i> | |
| Sunflower | \$100 |
| <i>Benefits above plus additional t-shirt or canvas shopping bag.</i> | |
| Wild Iris Donor | \$250 |
| <i>Benefits above plus Muench 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
 Att: Membership
