



# NEWSLETTER

## Pajarito Environmental Education Center

P. O. Box 547, Los Alamos, NM 87544; [www.pecnm.org](http://www.pecnm.org)

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## President's Message

Michael G. Smith

PEEC's membership has decreased 50% to approximately 60 members since our renewal date in April. Even though many people simply forget to renew, I am perplexed by this trend. Obvious reasons exist: family's disposal income either remains the same or has decreased, people are saving more, and the number of worthwhile nonprofit organizations and needs have increased. There may be less obvious reasons, such as a general feeling of hopelessness and powerlessness. Certainly times are difficult, but I subscribe to the glass is half full philosophy.

A potential reason for the decline is more insidious: a perception that PEEC has not delivered on its promise to develop a nature center in Los Alamos. To be fair, this is a long-term goal that will take many years to realize. First, we estimate that a building of minimum size to meet a nature center's needs plus land will cost \$500 to \$750 K. Add another \$250 K per year for staffing, programs, and maintenance.

An example of the difficulty involved should suffice. The Santa Fe artist Randall Davey's estate donated land and a building to the Audubon Society to develop a nature center in Santa Fe. Still, Audubon needed a number of years and more fundraising to establish the Randall Davey Center.

A million dollar donation to PEEC would be nice, but I and the Board are more realistic in our expectations. Furthermore, PEEC does

not have the weight of a national organization like Audubon behind it. Rather, our strength is our small cadre of dedicated volunteers with a plan.

In a nutshell the plan is to build a portfolio of environmental educational programs delivered in a steady stream to the Los Alamos public and surrounding communities. The plan encompasses programs developed solely by PEEC and jointly with other organizations. Such a portfolio enables us to argue that we fill a void when we begin applying for large grants that will make a physical location a reality.

In three short years PEEC has been very successful. Our initial one-day Earth Day event has grown to a week of activities. We have partnered with Audubon to deliver programs to local pueblos and with the National Park Foundation and Hawks Aloft to teach school children about bird migration. Recently we initiated monthly special events

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## CALENDAR OF PEEC EVENTS

**Saturday, October 4, 11-2:** Annual PEECnic, North Mesa Picnic Grounds. Meet the new board, eat, enjoy a North Mesa nature walk.

**Tuesday, October 14:** Craig Martin will talk on Valles Caldera history, the subject of his new book. Fuller Lodge, 7:30 p.m., co-sponsored with the LA Historical Society.

**Sunday, November 2:** PEEC members' trip to Las Vegas (NM) National Wildlife Refuge, led by Stephen Fettig.

designed to educate the local public about environmental issues of interest, such as the bark beetle infestation and butterfly habitat, and the PEEC Alerts, e-mail updates of interesting natural events.

Members should question what they get for their dues. For starters all the wonderful natural history programs that would otherwise not exist in Los Alamos, an honest attempt to educate the next generation of land stewards and, perhaps someday with lots of hard work and luck, a nature center.

More needs to be done to grow PEEC, including raising money locally and, perhaps, initiating a building fund; as always, we appreciate members' ideas. If you haven't done so, please renew your membership (see form attached to newsletter). If you have, on behalf of the board, birds, and butterflies everywhere, I thank you.

## **Birding Tour of Las Vegas NWR on November 2**

PEEC members will have a rare chance to visit the Las Vegas (NM) National Wildlife Refuge (LVNWR) with Stephen Fettig, wildlife biologist and one of the organizers of the NM Breeding Bird Atlas project.

In many ways the LVNWR is like a small version of the Bosque del Apache refuge. Both attract wintering waterfowl in abundance and provide habitat for many other interesting species. During Sundays in November, the back roads of LVNWR are open to the public, so we will explore areas we cannot visit at other times of the year. During our trip we will focus primarily on waterfowl and raptors.

For ducks we should see Northern Pintails, Green-winged Teal, Canvasbacks, Redheads, Ring-necked Ducks, Buffleheads, Ruddy Ducks, and others. For raptors, if we are fortunate, we will see Bald Eagles, Red-tailed Hawks, Ferruginous Hawks, Rough-legged Hawks, Golden Eagles, American Kestrels, and Prairie Falcons. As with many birding trips, we will be opportunistic in how we spend our time. If pipits, longspurs, and

sparrows are common, we will also spend time watching these grassland birds.

**Date:** Sunday, November 2, 2003

**Time:** Meet 7 a.m. in the parking area SE of Ashley Pond (the mailbox area). If you want to meet at the refuge, call to make that arrangement. It's nearly a 2-hour drive to LVNWR. We will likely bird from about 9 a.m. to 2 p.m. Folks may leave whenever they need to. Some may want to dine in Las Vegas, a jewel of Victorian architecture.

**Bring:** Lunch, sun screen, binoculars, hat, warm clothes in case of wind (but hope for calm), spotting scope if available.

**RSVP:** Stephen Fettig (phone 662-6785, e-mail <osprey@cybermesa.com>) so that we don't leave anyone behind.

## ***Craig Martin Talk on Valles Caldera Oct.14***

PEEC will join the Historical Society in sponsoring an exciting event--author Craig Martin discussing his new book on the history of the Valles Caldera. Mark your calendar now for Fuller Lodge, October 14, 7:30 p.m.

## **Fire Information Hikes with Judson and Jervis**

Chris Judson, park ranger at Bandelier, led a PEEC hike at the La Mesa Fire area near Ponderosa Campground on August 2. Several participants had been in Los Alamos during the 1977 fire and wanted to observe the changes since then. Chris pointed out the unburned ponderosa forest and the burned meadow with wildflowers and shrubs such as New Mexico locust, a few geraniums, wild onions, and gilia.

Tom Jervis's Bayo Canyon hike to see bark beetles and forest thinning efforts was described in the September 19 *Monitor*.

# ***Come to the Second Annual PEECnic, Oct. 4***

Saturday, October 4, 2003, 11 a.m.-2 p.m.  
North Mesa Picnic Grounds

It's time for the second annual PEECNic. Come and enjoy the company of other members, partake of a delicious potluck lunch, participate in the annual Board of Directors election and business meeting, find out about orienteering, then wrap it all up with a hike to some special places on North Mesa.

The Barras's architectural plans will be posted, and you may claim your high-quality canvas grocery SHOPPING BAG if

you haven't yet received it. (It was a bonus for those giving \$50 or more when they renewed this year.)

PEEC will provide drinks and tableware. If your last name begins in A - I bring a main dish, J - R a salad, and S - Z dessert.

## **PEECnic Schedule**

11:00-11:30: Setup, greeting, etc.  
11:30-12:30: Lunch  
11:30-11:45 : Welcome; state of PEEC:  
Michele Altherr  
11:45-12:00: Results of community organization survey: Randy Ryti  
12:00-12:15: Membership comments  
12:15-12:30: Election of new board  
12:30-2:00: Orienteering and hike to special places of North Mesa with Chick Keller

## ***Hoard Butterfly Hike Nets 23 Species***

A lively group of observers learned fascinating facts about butterflies on a hike in Canon de Valle led by Dorothy Hoard on July 12. Dorothy's grandsons Billy and Peter Johnson and Terry Foxx's grandson caught nearly all 23 species in their nets so we could examine them closely. The youngest participant was Aidan McPherson, riding in a baby backpack.

Dorothy helped us compile the following list of species with common name, scientific name, and host plant:

Admiral, Weidemeyer's (*Limenitis weidemeyerii*); willows, cottonwoods, aspens  
Copper, tailed (*Lycaena arota*); currant, gooseberry  
Fritillary, Atlantis (*Speyeria atlantis*); violets,  
Fritillary, variegated (*Euptoieta claudia*); violets, flax, plantain  
Hairstreak, banded (*Satyrium calanus*); oaks  
Hairstreak, bramble (canyon green) (*Callophrys dumetorum apama*); wild buckwheat  
Lady, American (*Vanessa virginiensis*); cudweed, pearly everlasting, mudwort  
Lady, painted (*Vanessa cardui*); thistles, composites, mallows  
Mourning cloak (*Nymphalis antiopa*); willows, elms, hackberry, cottonwoods  
Sister, California (*Adelpha bredowii*); oaks  
Skipper, Dun (*Euphyes vestris*); yellow nutgrass, sedges  
*Cyperus esculentus* (*Carex heliophila*)  
Skipper, golden (*Poanes taxiles*); unknown, probably grasses  
Skipper, silver-spotted (*Epargyreus clarus*); New Mexico locust  
Sulphur, dainty (dwarf) (*Nathalis iole*); sneezeweed, beggarticks, chickweed, garden marigolds  
Sulphur, orange (*Colias eurytheme*); alfalfa, creeping clover, other legumes,  
Swallowtail, two-tailed (*Papilio multicaudatus*); chokecherry, hoptree  
White, checkered, (*Pontia protodice*); plants of the cabbage family, beeweed  
White, pine (*Neophasia menapia*); pines, Douglas fir, other conifers  
Wood nymph, small (*Cercyonis oetus*); grasses

# Grasses of the Ponderosa Zone, Native and Introduced

C. F. Keller

Even those who love native plants are often hard pressed to master the common species of wildflowers around our town. Accordingly, people don't even try to learn our common grasses. However, learning the grasses is actually easier than learning the flowers since there are fewer species.

While the Los Alamos area has a fair number of grasses, it's easier to start with one habitat, that of the ponderosa-mixed conifer region. Almost any area west of town where the fire burned is in that habitat. The introduction of some non-native grasses during the reseeded of areas burned by the Cerro Grande Fire complicates the picture. However, learning both the natives and the non-natives will give us a chance to decide how they are affecting each other. So here they are:

## Principal native grasses:

*Muhlenbergia montana*, Mountain muhly  
*Schizachyrium scoparium*, Little blue stem  
*Blepharoneuron tricholepis*, Pine dropseed  
*Koeleria macrantha*, June grass  
*Elymus longifolia*, Squirrel tail

## Principal non-native grasses:

*Elymus trachycaulis*, Slender wheatgrass  
*Bromus carinatus*, var. *polyanthus*, Mountain brome  
*Lolium perenne*, Italian ryegrass  
*Bromus tectorum*, Downy chess or cheatgrass (called "brotec" by those in the know)

But how to identify these? Our own Terry Foxx and Dorothy Hoard's book, *Flowers of the Southwestern Forests and Woodlands*, is a good start, containing all of the natives and most of the introduced ones. (Note that in 1984 *Elymus longifolius* was called *Sitanion hystrix*.) Robert Dewitt Ivey's *Flowering Plants of New Mexico* is full of amazingly accurate drawings of wildflowers and grasses.

But if you don't have a book, here are

some descriptions that might get you there anyway. The first three are "late season" grasses, coming into bloom in late August (and simply not there in June), while the last two are "early season" ones that bloom in June. In descending order of abundance, they are:

**Muhlenbergia montana.** Mountain muhly, a beautiful grass that I've planted in my garden as an ornamental, is the most common. It grows in individual clumps rather than in dense masses. The clumps are 2-3 feet tall, having several slender stems emerging from a mass of basal leaves. The seed heads are at the ends of small branches, rather than stuck to the stem in a spike. The distinguishing characteristic is that each flower ends in a tiny hair a few millimeters long, giving the grass a fuzzy appearance.

**Schizachyrium scoparium.** Little bluestem is easy to identify--it's the tall grass with red stems (in defiance of its name). It also occurs in single bunches with long stems arising from a mass of basal leaves. The stems turn orange with age and the flowers don't branch as much as muhly but form feathery structures that last into winter, reflecting the low sun wonderfully.

**Blepharoneuron tricholepis.** Pine dropseed is similar in appearance to mountain muhly, and they often grow side by side. But the flower structures lack hairs. Its flowers have a lacy appearance, making it sparkle in the sunlight as it reflects tiny pinpoints of light.

**Koeleria macrantha.** June grass is a real beauty early in the summer. Again, it's a single clumper. Instead of branching, the flowers are rather densely packed close to the stem in a feathery spike. When young, the flowers actually spread out a centimeter or so from the stem and make a striking lacy fabric that catches the sunlight. At maturity, these move close to the stem, looking as if they were glued to it.

**Elymus longifolia.** Squirrel tail is less common than those above. But it is easily recognized because its flowers, which are also attached close to the stem and do not branch, have 1- to 2-inch long hairlike structures that extend upwards at first, then spread out into the bushy squirrel tail. When young, they wave in the breeze and nearly hide the flowers. When old, the hairs become stiff and bend back on themselves. Then they can easily be pulled apart.

Those are the natives. But what about the non-natives introduced to stop erosion and flooding? Happily, these three are distinct from the natives.

**Elymus trachycaulis.** Slender wheatgrass is just that, very slender. It sends tall stems (about 2-3 feet high) from a mass of basal leaves. It has no branches, just individual spikes. The flowers/seed heads appear individually glued to the stem and are far fewer than in June grass. It is thus a spare-looking grass with the flowering part hardly thicker than the stem itself. It is an early season grass and is quite common due to intense reseeding, sometimes covering entire slopes.

**Bromus carinatus, var. polyanthus.** Mountain brome is graceful, sending stems upwards from extensive leafy bases. Stems support weak side and terminal branches that are bent downwards by heavy seed heads. Thus it is often called "nodding" brome.

**Lolium perenne.** Italian ryegrass sends stems upwards from a few basal leaves. The seed-heads are small fan-shaped structures that appear glued sideways to the stem, alternating one side and then the other. Nothing else looks like it.

drawings from Robert DeWitt Ivey,  
*Flowering Plants of New Mexico*

Alas, some of the seed batches included a nasty pest--cheatgrass. It is an annual (the others are all perennials), but it is ever so efficient at spreading many seeds and often covers large areas in early spring. It takes away winter moisture from later-growing grasses. Like mountain brome, the seed heads nod, but the entire plant is much shorter, less than a foot tall. Happily, it is found in just a

few areas, such as the beginning of the Quemazon Trail. Beware--if you walk through a stand, you will emerge with some of its tenacious seeds burrowing their way through your socks and sticking into your ankles!

It is not clear yet how these introduced grasses will impact the natives. Certainly where slender wheatgrass or mountain brome is concentrated, the natives are sparse. But there are many areas where the natives dominate, and I am told they are slowly crowding the others out. Perhaps it is the price for getting the benefits of slope stabilization. One hopes that in the following seasons these non-natives will become reduced in numbers. Still, they have become part of the family, and I'd miss them if they disappeared altogether.

## 2003-04 Board Elections

Nominating Committee Jody Benson and Yvonne Keller propose the following board:

President, Michele Altherr  
Vice-President, Randy Ryti  
Secretary, Tom Jervis  
Treasurer, Janie Enter  
Directors  
Hedy Dunn                      Chick Keller  
Diana McPherson              Sarah Meyer  
Dick Opsahl                      Becky Shankland  
Michael Smith

Positions open now for a two-year term are president and secretary, plus half the board of directors. Here are nominees' biographies:

**Michele Altherr:** Michele is one of the founding members of PEEC. She has served as PEEC's Vice President, Educational Programs chairperson, member of Earth Day Committee, and contributing writer to the newsletter. She supports several local non-profit organizations including the League of Women Voters, the Los Alamos Historical Society, the Native Plant Society, and the Orienteering Club. She is a member of the 2003-04 Los Alamos Leadership class. She is a fifth-grade teacher at Mountain Elementary School. Eleven years ago she and her husband

moved to New Mexico, initially living in the Jemez and working as volunteers on water issues and forest fire preparedness. Now they live in Los Alamos and keep busy with two high school teenagers.

**Tom Jervis:** Tom, a founding member of PEEC, is a retired scientist and educator. He has degrees in physics and applied physics. Physics. In the mid-1970s, he taught Environmental Studies at the college level, including a six-week field course to Alaska and the Yukon to investigate similarities between the gold rush of 1899 and the oil rush of 1976. He has a long association with the Audubon Society, serving in positions at the local, state, and national levels. He established the Audubon wildlife film program in Los Alamos. His particular interest is ponderosa pine forest ecology; he likes to compare the forests in New Mexico with those in the Black Hills of South Dakota, where he and his wife Carlyn own a log cabin. They are both enthusiastic birdwatchers and naturalists.

**Chick Keller:** Chick is a retired LANL scientist. He came to Los Alamos as a graduate student in 1967 and became a staff member in 1969. His life-long interest in things natural started as director of the nature lodge at Hidden Valley Boy Scout Camp in Pennsylvania when he was 16. He has done research and teaching in climate studies and directed the Lab's UC Institute of Geophysics and Planetary Physics. His non-professional passion is identifying native plants, leading to a herbarium collection of some 1500 specimens from New Mexico and Colorado. He is a frequent contributor to the Monitor with a column titled "Wildflower Notes." Both he and his wife, Yvonne, are avid birders and are part of the NM Breeding Bird Atlas project with a study plot in the Valles Caldera National Preserve. He is president of the Native Plant Society's Santa Fe Chapter and a founding member of PEEC.

**Diana McPherson:** Diana has lived in Los Alamos for 5 years and has worked as a substitute teacher within the Los Alamos school system and as a research ecologist in the RRES-ECO division at LANL. She recently completed her master's degree in Marine Conservation and Environmental

Education at Prescott College in Arizona. As part of her master's program, she created an education curriculum for the Albuquerque Aquarium called *Desert Sharks*. Her thesis combined research and education for the intertidal community in Puerto Penasco, Mexico (*Reading Between the Tides - Uniting Research and Education*). She would like to get teachers and other educators involved in environmental education workshops and create environmental education programs and outings for homeschoolers.

**Becky Shankland:** Becky studied English literature at Harvard/Radcliffe, had a Fulbright in England, and then received a Master of Arts in Teaching. She taught English in Massachusetts before moving to New Mexico and teaching for 17 years at Los Alamos High School. In 12th grade World Literature, she incorporated questions about the sustainability of civilizations. She retired in 1997. She currently serves on the board of the League of Women Voters, Vision 2020, and the Open Space Advisory Committee. Current interests are writing about wildflowers, bird-watching, hiking, reading, solar energy, and traveling. A founding PEEC member, she edits the newsletter, organizes programs and publicity, and helps with Earth Day.

## Hawk Migration

Stephen Fettig

The autumn hawk migration is in full swing. Recently at the Hawk Watch in the Manzano Mountains near Capilla Peak we enjoyed an outstanding flight of birds with a highlight of seeing 14 Peregrine Falcons over the course of the day. Many of these falcons showed the steel-blue back typical of adults. On Sunday, we counted a whopping 432 hawks. Sunday's highlights included close views of 4 Ospreys, 2 Broad-winged Hawks, and many Sharp-shinned and Cooper's Hawks. Being a bird mostly of the eastern forests, the broad-wings were a special treat. In flight adult broad-wings have light-colored broad wings that are outlined in black giving them a

striking appearance. They also have dark tails with distinctive white banding. We typically only count 6 in New Mexico each fall. Last year's peak count was 234 birds on September 15, so 432 hawks made for an outstanding day.

For those interested in seeing the Manzano hawk migration, the next two weeks will be the best for hawk viewing. The river of hawks that streams through the Manzano Mountains south of Albuquerque is a truly spectacular event. Birds that start out as tiny specks on the horizon to the north glide and dive in the wind and grow larger in view until they can often be seen only a few hundred feet away--sometimes as close as a few yards. The fly-bys last only a few seconds as the birds speed southward. On peak days there is a nearly continuous flow of birds from the north. Experiencing the migration is one of the best ways of experiencing the passage of the season with wildlife. Besides the hawks, the night skies and sunsets are spectacular near the Capilla Peak campground near the edge of the Manzano Wilderness at over 9,000 ft.

Typically in late September, between 100 and 200 birds can be seen from the Manzano Hawk Watch when the winds are from the west. Higher numbers of birds typically fly by just before a storm hits or before a cold front passes through the state. As of September 21 this year, 2155 birds have migrated past the Manzano hawk watch. The typical season-long total is 5100 birds. The counting will continue until November 5.

Here are the numbers for Sunday, September 21, 2003:

- 100 Sharp-Shinned Hawks
- 164 Cooper's Hawk
- 36 Unidentified Accipiters
- 40 Red-tailed Hawks
- 1 Swainson's Hawk
- 2 Broad-winged Hawks
- 1 Peregrine Falcon
- 69 American Kestrels
- 15 Turkey Vultures
- 4 Osprey

Further information is available from Stephen Fettig (phone 662-6785, e-mail <osprey@cybermesa.com>).

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## MEMBERSHIP

If your mailing label says "DUES DUE," it's time to renew your PEEC membership. Please ask a friend or neighbor to join too! Canvas grocery bags with the PEEC logo will be given to new or renewing members at the \$50 level.

Membership valid for one year; PEEC is a 501 (c) 3 tax-deductible organization.

Name: \_\_\_\_\_

Mailing address: \_\_\_\_\_

Phone number: \_\_\_\_\_ E-mail address: \_\_\_\_\_

Membership levels (make checks payable to PEEC):

- |  |        |
|--|--------|
| <input type="checkbox"/> Individual/Family   | \$20   |
| <input type="checkbox"/> Friend              | \$50   |
| <input type="checkbox"/> Benefactor          | \$100  |
| <input type="checkbox"/> Additional Donation | \$____ |

**Check the ways you could be involved:**

- |                                  |   |
|----------------------------------|---|
| ____ Develop programs            | ____ Support one-time events (Earth Day, talks) |
| ____ Lead educational activities | ____ Help with membership                       |
| ____ Help with site selection    | ____ Raise funds/write grant                    |
| ____ Give a guest lecture        | ____ Edit newsletter                            |

Would you like to offer any special interests and skills? (Use other side.)

Please return this form and a check to PEEC, P.O. Box 547, Los Alamos NM 87544

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