



The Bear Claw



The Sandia Mountain Natural History Center Newsletter

November 2007

Wild Turkeys in the Sandia Mountains

You may still be recovering from your big turkey dinner on Thanksgiving. Your turkey was most likely quite a bit fatter than its brothers and sisters out in the woods, but it was still hereditarily the same bird.

Even though wild turkeys are considerably slimmer than their domestic counterparts, flying is a real effort for them. So turkeys, being the clever birds that they are, climb a hill and then glide to the nearest tree top roost for the night, away from predators. Females who have chicks stay on the ground and brood them each night until they too can coast over to a tree.

Several weeks ago a school group found a turkey tail feather and days later, a wing feather on the Center's Mud Spring Loop trail, just below the boundary fence between the National Forest and APS properties. Also in that area, we found a good deal of bird droppings on the trail under a Ponderosa pine tree. Those of you who have hiked the trail may recall that you hike up a narrow valley with hills nicely suited for climbing and gliding, and

large trees perfect for turkey roosting. Although we haven't seen the fellow, there is probably a "gobbler" in the woods near the SMNHC.

Twenty-two turkeys captured in Chama were released in the Sandias in 2002. According to wildlife biologists, Bill Falzey (Sandia Ranger Station) and Mark Olsen (Fish and Wildlife), the group is doing fine and holding their own. Just thought you might relish a little turkey talk before you gobble your next holiday meal.

FUN FACT: RATS MULTIPLY SO QUICKLY THAT IN 18 MONTHS, 2 RATS COULD HAVE OVER 1 MILLION DESCENDENTS.

SMNHC Presents at EEANM Conference

On October 27th, SMNHC Instructor Susie Davis presented information at the Environmental Education Association of New Mexico's (EEANM) annual conference. There were 40 professionals from the environmental education field in attendance. The annual conference's theme this year was "Networking Near and Far." It was held in Las Cruces at the New Mexico Farm & Ranch Heritage Museum.

Susie went to a national meeting of outdoor education leaders in August which was organized by the Children and Nature Network. At EEANM's conference she and Beth Dillingham (Rio Grande Nature Cen-

ter State Superintendent) presented information from the Children and Nature Network meeting. The presentation included striking statistics about the disconnection between children and nature, information about the movement to reconnect children & nature, and resources available through the Children and Nature Network.

By attending the conference, the SMNHC gained valuable information about what's going on in the State's environmental education community, new outdoor activity ideas, and networked with other outdoor educators.

In the spotlight...



SMNHC New Office

On October 16, 2007 the SMNHC staff officially moved the office into the Stubbe Center. The move into the new office building was highly anticipated. Our old offices were in an un-insulated WW II barracks. Using propane heaters to heat these buildings was a huge expense at the Center. The Stubbe Center was built with energy efficiency in mind. In the winter passive solar heat keeps the building warm and in the summer the angle of the sun keeps the building shaded. The building is also insulated. The energy saved would be considerable. It would also be in keeping with the mission of the SMNHC to be as environmentally friendly as possible. The SMNHC staff and volunteers are excited to be in the new office!

NUMBER OF PEOPLE SERVED AT SMNHC:

SINCE JULY 1ST: 5910

THIS MONTH: 1055

Upcoming Events at SMNHC:

January 30, 4:30-6:30

Ecosystems Everywhere! Curriculum Workshop- Make teaching ecology easier and more fun! You'll go home with ready-to-use, hands-on, multi-disciplinary activities and our full curriculum of activities! Refreshments provided. **Level:** Teachers of 3rd- 7th grade. **Cost:** Free!

February 16, 9:00-4:00

Project Wild/Aquatic Wild Workshop -Project WILD is a K-12 interdisciplinary ecology, conservation and environmental education program emphasizing wildlife. You will go home with two award-winning international Project WILD Guides full of fun, hands-on activities for your classroom. **Level:** K-12 Teachers & Environmental Educators. **Cost:** Free (Guides included)

March 1, 9-3:00

Spend the day in the Mountains hiking our trails, visiting two hands on exhibit rooms and observing birds and animals from our wildlife observation deck. March will offer an hour-long **Leave No Trace** education session at 10:00 a.m.

March 8, 9:30-3:00

Wild Sandias! Short Course- Come experience the Sandias! Hike with us and learn about the natural history and ecology of the area. Take home hands-on activities and facts that you can share with your students. (Most activities are aimed at a 5th grade audience) **Level:** All teachers, pre-teachers, non teachers. **Cost:** Free!

For more information on our upcoming programs call us at (505) 281-5259 or visit our website:

www.nmnaturalhistory.org/SMNHC

The Sandia Mountain Natural History Center (SMNHC) is a natural history and environmental education facility located on the east side of the Sandia Mountains in Cedar Crest, New Mexico. The SMNHC is owned by Albuquerque Public Schools and operated by the New Mexico Museum of Natural History and Science.

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For more information about the Center, visit our website at: www.nmnaturalhistory.org/SMNHC

Fire: Friend and Foe

You know that forest fires can burn out of control. Did you also know that they are part of the natural balance of Sandia Mountain Ecosystems?

In a dry ecosystem like the Sandia Mountains each area of the forest burns on average every 12-20 years. Natural fires are started by lightning strikes. The fires kill some of the trees, creating openings and leaving more resources for the trees that survive. Fire is encourages decomposition in dry forests where decomposers have difficulty; nutrients are absorbed into the soil more easily from ash than from larger debris like sticks.

Many tree species have adapted to repeated fires. Ponderosa Pines have thick bark, and self-prune so there are no branches near the ground. They also have adaptations which encourage forest fire: dropping needles in the fall to make a flammable forest floor, bark which pops off in small pieces when hot, and the tendency to rise above the canopy (leading to a higher chance of lightning strikes). Aspens adapt to fire by sprouting from their roots, enabling quick recovery after a fire; Aspens dominate recently-burned areas for a number of years.

Activity of the month: **Fire On Trial**

Overview: Students and teacher act out a mock trial of forest fire, illuminating fire's role in some New Mexican ecosystems.

Time: 30 minutes

Game procedure: Students play the witnesses, attorneys, and jury. The teacher plays the judge. Costumes or nametags can be worn if desired. After a dramatic reading of the script "Fire on Trial", students vote on whether Fire is "guilty" of destroying the ecosystem.

Closure: Discuss the role of fire in local ecosystems and current topics [like the effects of fire suppression, forest management techniques (e.g. thinning), and the prevalence of Bark Beetles in overcrowded forests].

Adaptations/extensions: Homeschoolers or small groups can play multiple parts or do the skit as a puppet show. The skit can be adapted to model the civil process more closely to teach civics and cooperation as well.

[The complete lesson plan is posted on our website.]

SMNHC Eco Activity Guides

Are you wondering how to prepare for your field trip? Do you want more effective ways to teach ecology? Our FREE curricula make teaching ecology *easy* and helps integrate the Ecology Field Program into the classroom. A recent study indicates that student understanding of ecology concepts increases significantly after having participated in both the Ecology Field Program and *Ecosystem Explorations* (one of our curriculums: the other is new).

The hands-on, teacher-tested activities are **standards-linked**, multi-disciplinary, and based on *LOCAL* ecosystems. (Some activities are quick-and-easy, others are more extensive.

The curriculum package (available free on our website) includes two activity guides, Spanish translations of student worksheets, and a Spanish/English glossary with commonly used terms.

ECOLOGY TEACHING TIP
MATCHES IN SAND OR CLAY CAN BE USED TO DEMONSTRATE WHY OVERCROWDED FORESTS ARE MORE LIKELY TO HAVE EXTREME FOREST FIRES. SET UP ONE GROUP (VERY) CLOSE TO EACH OTHER AND ONE GROUP FARTHER APART. LIGHT ONE MATCH IN EACH, SIMULATE WIND, AND OBSERVE.