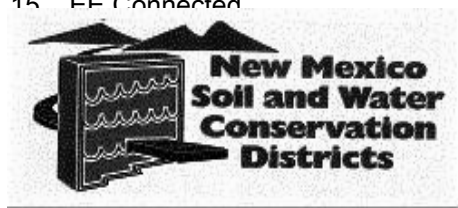




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Brazilian Studies by New Mexicans

Vannetta Perry, Ed.D.

"This is the way how we live. One way of life is not any better than another. It's just different." Max Maia – Brazilian Teacher and Guia Extraordinario. Fourteen New Mexico educators representing statewide K-12 public and private schools participated in the 2004 Brazilian Area Studies of Pantanal Wilderness Area, An Intercultural



Jacare (spotted caimon) of the S. Pantanal

Perspective of the Complex Interaction between the Culture, Ecology, and Socio-economics program. Sponsored in part by the United States Department of

(see *Brazil* page 5)

At the Water's Edge

Richard W. Becker, Ph.D. & Dana Vackar-Strang

Student Serge Shkuro from Grants, New Mexico read, "Some paintings become famous because, being durable, they are viewed by successive generations in each of which are likely to be found a few appreciative eyes."

Vanhorn, Texas teacher Elias Solis followed with, "I know a painting so evanescent that it is seldom viewed at all, except by some wandering deer. It is a river who wields the brush, and it is the same river who, before I can bring my friend to view his work, erases it forever from human view. After that it exists only in my mind's eye."

Four high school students, five high school science teachers and one mid-school teacher joined (see *Waters Edge*, page 11)

EEANM NEWS

Eco-Ed *the listserv for* **New Mexico Environmental Educators**

EcoEd Alert: EcoEd had a technical glitch last month. The current list of subscribers was lost. If you have not been receiving EcoEd—we apologize. Please resign up using the following example of how you would subscribe if you email address was **leo@aldo.org**.

1. Convert your email address as follows:
leo@aldo.org becomes **leo=aldo.org**
2. Add your converted email address to this phrase:
ecoed-subscribe-leo=aldo.org@lists.nm.org
3. To subscribe, send an email message to:
ecoed-subscribe-leo=aldo.org@lists.nm.org
4. Don't put anything in the subject line or in the body of the message.
5. To send a message to the listserv, address it to:
ecoed@lists.nm.org
6. To unsubscribe from the listserv, send an email to:
ecoed-unsubscribe-leo=aldo.org@lists.nm.org

To reply to an individual's message on the listserv, please create a new email message with their email address in the "To" field. Do not press "Reply" or your message will go to the entire listserv.

Have you experienced a great EE class, workshop, or program? Have you read an insightful EE article, book, or publication? Please share your experience or great find with other EE Connections readers by submitting to upcoming issues...

Winter Newsletter

Deadline Nov. 12th

The EE Connections Winter Issue will be distributed in December and features through February '05. Please send submissions to the newsletter editor by November 12. Long or short articles about environmental education and other closely related topics are encouraged. Digital pictures accepted and welcomed. In addition, information about materials, grants, opportunities, and job openings are accepted.

Please send your contributions to Amy Claesson at the e-mail address below. If you send an

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are area code
(505) unless
(506) otherwise noted.*

*Have a message for the Board? On line Forums are
available: eeanm.org/PHPBB2/index.php*

Message from EEANM's President

EEANM President: Stephanie Dobbie

I hope everyone is enjoying the brisk mornings and autumn colors. As my term comes to an end, I would like to recap some of our accomplishments as an organization.

Last December, EEANM had a strong presence at the Science and Math Teachers Conference in Las Cruces. This November, EEANM looks forward to seeing you at this annual conference hosted by the New Mexico Council of Teachers of Mathematics, New Mexico Science Teachers Association, and EEANM. The conference takes place November 10-12 in Albuquerque. Go to www.eeanm.org for more information.

EEANM received a grant from Lockheed Martin to host a Youth Conference on the Environment, held in Albuquerque in April. This was a one-day event for middle and high school students focusing on water use in New Mexico. The money that is left over from the Youth Conference will be given to student groups for service learning projects. See the Service Learning Grant in this newsletter for more information.

We also received a grant from the EPA to conduct two facilitator trainings in Project WET, Project WILD, Project Archeology, the Leopold Education Project, and the Bosque Education Guide.

In August, EEANM sent a team to Nebraska where they participated in a Leadership Clinic Training Workshop. Thanks to Bill and Carol Hayes, Peg Crim, and Ralph Olivas. Because of their participation, EEANM will be able to hold our own Leadership Clinic in southern New Mexico next year.

EEANM was asked by the North Amer-

ican Association of Environmental Education to submit a proposal to cohost the 2005 National Conference in Albuquerque. At this point, we have been designated a finalist along with Salt Lake City, Utah. The NAAEE Conference Chair, Barb Eager, will be visiting Albuquerque on Oct. 16-20. We will be looking to EEANM membership to help us show off our city and state.

Ken Barragan from the Randall Davey Audubon Center has agreed to represent EEANM on the Environment Department's Illegal Dumping Task Force. EEANM is sponsoring the Middle Rio Grande Children's Water Festival again, which will take place in Albuquerque in October. And, you will see us at the Teacher Open House at the New Mexico Museum of Natural History on October 13.

Finally, I would like to welcome three new members to the EE community. Welcome to baby Lilia Walker Holladay born September 14 (not pictured).



**James
"Graham"
Dobbie**

**Born June 28
(right)**



**Arden Lucille
Dwyer McKee**

**Born August 28
(left)**

*EEANM is really reaching out to our community, forming partnerships, providing training and supporting environmental education in all of its forms. My term as President is coming to an end, but my involvement with EEANM will continue. How can you get involved? Call me at 256-4343. Sincerely, **Stephanie Dobbie***



WERC Staff to Conduct Sessions at Science-Math-Environmental Education Conference

WERC staff will present several workshops on November 10 in conjunction with the 2004 New Mexico Science-Math-Environmental Education Conference in Albuquerque, NM.

What's New with Project WET?

Congratulations to our 23 new Project WET Facilitators and many thanks to our EEANM partners and lead WET Facilitator Cheri Vogel, Office of the State Engineer, for helping to make it happen. Our new WET team was trained during the EEANM-hosted Multi-Facilitator workshop held this past February and a June session hosted by the Santa Fe Water Division. See who's who on the WET team at <http://www.werc.net/outreach/K-12> programs (click on Project WET).

Check out some exciting new curricula and activities such as Native Waters and Healthy Water Healthy People (HWHP). The Kids in Discovery Series, Native Waters is a unique approach to children's elementary level water education through Native American philosophy. HWHP is a water-quality curriculum developed for the mid-high school level. These new curricula materials and water test kits are available directly from the Project WET-USA bookstore www.projectwetusa.org. Coming in spring 2005, watch for our New Mexico HWHP kick-off training. For more information, contact Bryan Swain, New Mexico WET program coordinator, bswain@nmsu.edu.

► **Groundwater Institute for Teachers** will be presented by the American Groundwater Trust and the New Mexico Environment Department Groundwater Bureau. The one-day workshop was coordinated by WERC Contract Training Coordinator Bryan Swain (New Mexico WET program coordinator). The training will focus on groundwater science and water resource issues.

► **Discover a Watershed: The Rio Grande/ Rio Bravo** will be co-presented by the New Mexico Office of the State Engineer and Bryan Swain, WERC. This one-day, hands-on workshop for junior high and high school teachers focuses on hydrology, history, culture and more. It will be held at the Albuquerque Aquarium/Botanical Garden Education Center.

► **Project Learning Tree's Energy and Society** will be presented by WERC Professional Development Coordinator Dr. Deb Thrall. This half-day presentation provides teachers with information to help students learn about their relationship with energy and investigate the environmental issues related to energy's role in society.

Additional WERC Information in this Issue...

- Contests Encourage Students to Learn about Environmental Issues
- WERC High School Environmental Design Contest Task Announced
- Calendar of Events

Go to **www.werc.net** for more information



(Brazil from page 1) Education Fulbright-Hays Group Projects Abroad Program, this collaborative project involved New Mexico State University's Department of Curriculum and Instruction in the College of Education and the Office of the Vice Provost for International and United States-Mexico Border Programs with the Universidade de São Paulo (USP), São Paulo, Brazil. This thirty-five day project focused on the Pantanal Wilderness of South America, the world's largest wetlands. Teacher-participants were enrolled in two graduate courses at NMSU and will produce learning modules that focus on wetlands, specifically the Pantanal. Lectures at USP, school visits, followed by extensive field-based investigations in the Pantanal in Mato Grosso and Mato Grosso do Sul states of southwestern Brazil provided an in-depth study of this unique environment.



Transpantaneira - the only road South into the Pantanal from the North.

The purpose of the Brazilian Studies included:

- the development of international, cross-cultural area studies and pedagogy that brings a global perspective to New Mexico K-12 classrooms,
- an exploration of the current Brazilian Pantanal environmental issues from an educational social sciences point of view,
- the immersion of teacher-participants into various facets of Brazilian culture and daily life,
- the internationalization of school curriculum for New Mexico K-12 classrooms with the introduction of Brazilian culture and environmental science issues, and
- the development of collaborative relationships between NMSU and The Universidade de São Paulo by integrating the graduate program with an intercultural experience.

The project objectives were to:

- expose New Mexico educators to Brazilian culture, history, geography, politics, educational systems, and environmental science issues and to facilitate learning within these areas so that this knowledge can be pedagogically integrated into their classroom activities,
- provide a unique setting for a study of natural ecosystems and ecological concepts and the complex relationship between the environment, culture, and economy, and
- provide a practical, inquiry-based laboratory and field experience for participants that focuses on the acquisition of knowledge, pedagogy, and techniques necessary for the development of culturally-sensitive curriculum related to the fragile wetlands of Brazil.

Located primarily in southwestern Brazil, the Pantanal contains about one third of the Upper Paraguay River Basin, comprising approximately 68,000 square miles. Derived from the Portuguese word *pântano* (swamp, marsh), the Pantanal is what geologists term an immense alluvial depression. The area averages a drop of one inch in elevation for every mile in the north/south gradient and three inches in the east/west gradient. During the rainy season from October to April, rivers overflow, flooding 75% of the Pantanal.

As one of the most diverse environments on earth, the Pantanal is abundant in flora and fauna including several endangered species such as the hyacinth macaw and jaguar. There are an estimated 50 reptile species (including caiman and anacondas), 50 amphibians and 263 fish species (including piranha) in the Pantanal. Many mammals live in the Pantanal including the howler monkey, woolly monkey, capuchin monkey, tufted-ear marmoset, jaguar, **(see Brazil, page 13)**

SPONSOR ***Randall Davey Audubon Center***



Audubon NEW MEXICO

RANDALL DAVEY AUDUBON CENTER, 1800 UPPER CANYON ROAD SANTA FE, NM 87501



Nestled in the foothills of the Sangre de Cristo mountains, our 135-acre sanctuary & education center offers:

- *Environmental Education Programs to K-6 children in Santa Fe*
- *Weeklong Summer Day Camps for Children ages 5-11*
- *Family events, adult classes, and Saturday morning bird walks!*
- *Volunteer and Intern Opportunities*
- *Nature store with books, gifts, bird feeders, seed, and much more!*
- *Teacher trainings*

Contact us by phone: 505.983.4609 or visit our website @ nm.audubon.org

National Association for Interpretation

www.interpnet.org

Upcoming Trainings & Certifications

- Interpretation Canada National Conference
Oct 20-24, 2004, Lethbridge, Alberta
- North American Association for
Environmental Education, Nov 6-10, 2004,
Biloxi, MS
- Association of National Park Rangers
Nov 15-19, 2004, Rapid City, SD
- NAI National Interpreters Workshop
Nov 16-20, Grand Rapids, MI

Certified Interpretive Guide (CIG) Trainings

- Oct 18-21, 2004— Fort Davis, TX
- Oct 18-21, 2004— Yaquina Head, Newport, OR
- Oct 23-26, 2004— *Heard Natural Science Museum
and Wildlife Sanctuary*, McKinney, TX
- Nov 1-4, 2004— *Walden Pond State Reservation*,
Concord, MA

Certified Interpretive Trainer (CIT) Training Workshops

- Dec 6-10, 2004— Zephyr Cove, NV

EEANM Environmental Service Learning Project Grant

MONEY IS AVAILABLE FOR ENVIRONMENTAL SERVICE LEARNING PROJECTS

SERVICE LEARNING GRANT DETAILS...

The Environmental Education Association of New Mexico (EEANM) is a non-profit organization which provides and promotes environmental education by offering New Mexicans opportunities for professional development, communication, and partnership. Our goal is to foster a culturally and geographically diverse New Mexico citizenry with the knowledge, skills, attitude, and commitment, to make informed decisions about their environment.

EEANM will fund projects that engage students in environmental service learning. Priority will be given to projects that address water quality and water conservation in New Mexico. Examples of projects include planning a xeriscape garden, teaching others about water conservation, and sharing the results of a water quality survey. The amount requested should not exceed \$500.

TIMELINE

Deadline for applications	Postmarked November 20, 2004
Recipients will be notified	December 10, 2004
Projects must be completed	May 1, 2005
Project reports due	June 1, 2005

APPLICATION PROCEDURE

Submit your request according to the following items. Please include a detailed budget and a one-page narrative describing the project. Send the application, budget and narrative to the address below.

NOTE: Erroneous or misleading information may result in grants being rescinded or revoked and repayment of any funds received may be required. EEANM requires a final report showing the expenditure of the funds and the results of the project.

Name of School or Group:	Phone Number:	Person managing the Grant:	Phone Number:
Address:	City/State/ZIP Code:	Email:	
Amount requested:	Total cost of Project:	Date the funds are needed:	
Date the project will begin:	Date the project will end:		

What is the title of your Project?

How many people will the project benefit?

Describe the anticipated results of the project and how you will evaluate your success.

Outline the timeline for implementing and completing your project.

SUPPLEMENTAL INFORMATION

Please provide the following information along with the completed application.

1. A detailed budget showing all anticipated costs, other sources of funding, and the amount requested from EEANM
2. A one-page narrative describing the project

Mail to: EEANM, P.O. Box 36958, Albuquerque, NM 87176

Nov. 10-12: Annual Fall Conference & Pre-Conference Professional Training

“Making Connections: Higher Expectations for Math, Science and Environmental Education”

On line Itinerary & Registration:

- <http://www.eeanm.org>
- Scroll down the middle column to
“NMSTA/NMCTM/EEANM Combined Annual State Conference”



Nov 10 (Wednesday) Pre-Conference Professional Development Sessions

PLT's Energy & Society - (9 am -12 pm)

Discover A Watershed: Rio Grande/Rio Bravo Workshop: (8:30 am - 4 pm)

Project WILD- (8 am – 4 pm)

New Mexico State Science Standards Review: (3 pm - 5 pm)

Lesson Study Conference: (8 am - 4 pm)

Lesson Study Leadership Follow-up Session: (3 hour session on Thurs., Nov. 11)

New Mexico EPSCoR Nanoscience/Hydrology Initiative Outreach Education

Poster Presentation and Exploration of Current Research and Development (8 am – 3 pm)

Ground Water Institute for Teachers™ (8:30 am - 4:00 pm)

WOW! The Wonders of Wetlands: (9 am - 4 pm) \$40 for materials

New Mexico CRT Technical Assistance (9 am - 4 pm)

Nov 11-12 (Thursday & Friday) Off-site Field Study Tours

ALL TOURS... Have a 23 person limit, include transportation, begin and end at the MCM Elegante Hotel lobby, and emphasize how you can help get the best educational experience for your students.

Thursday, Nov.11: Petroglyph National Park and ABQ Open Space

Naturalist led. See amazing Native American petroglyphs and learn their historical and geological story in an easy walking tour of La Boca Negra and Piedras Marcadas areas. Cost: \$12.00

Friday, Nov.12: New Mexico Museum of Natural History

Behind the scenes tour with a focus on the exciting, new exhibit, 'Hall of Super Giants'. DynaTheater showing- "Forces of Nature" included! Includes copy of Jurassic Teachers Guide. Cost: \$12.00

Friday, Nov.12: Albuquerque BioPark- Rio Grande Zoo

We will see the new Adventure Africa, the Gator Swamp, Naked Mole Rats, and Tropical America exhibits with toucans, spider monkeys and colorful bromeliads. Cost: \$12.00

Annual Fall Conference & Pre-Conference Professional Training
Making Connections: Higher Expectations for Math, Science and Environmental Education
**New Mexico Council of Teachers of Mathematics/ New Mexico Science Teachers Association/
Environmental Education Association of New Mexico**

November 10-12, 2004

MCM Elegante Hotel, Albuquerque, at Menaul and University



Individual Registration

(Please print or type; retain a copy of this form and schedule for your records)

Name _____	School _____
Home Address _____	District _____
City/State/Zip _____	E-Mail _____
Home Phone _____	School Phone _____
Grade Level _____	Subjects Taught _____

Pre-Conference Professional Development Sessions (Wednesday, Nov. 10)

- ☐ I will attend PLT's Energy and Society (dthrall@unm.edu)
- ☐ I will attend Project WET's WOW! Wonders of Wetlands (bswain@nmsu.edu) (\$40- material/curriculum/refreshments)
- ☐ I will attend State Engineer/WET, Discover the Rio Grande/Rio Bravo (cvogel@ose.state.nm.us)
- ☐ I will attend Project WILD (kholladay@state.nm.us)
- ☐ I will attend WERC/American Groundwater Trust, Groundwater Institute for Teachers (bswain@nmsu.edu)
- ☐ I will attend NM State Standards Review, Richard Reif (rreif@ped.state.nm.us)
- ☐ I will attend Lesson Study Conference, Lisa Snow (lisnow@nmsu.edu)
- ☐ I will attend EPSCOR (vperry@nmt.edu) (\$15 meal – pay this directly to instructor – not to the conference)
- ☐ I will attend NM Public Education Department Math CRT Technical Assistance (9am -4pm) (cahlstrom@ped.state.nm.us)

Participants will receive separate confirmation for the pre-conference sessions.

Regular Conference Registration (Thursday and Friday, Nov. 11-12)

Individual Registration (professional)	\$50.00	\$ _____
(Includes 1-year memberships in NMCTM, NMSTA, & EEANM)		
Student Registration	\$25.00	
Late/On site registration (received after 10/15/04)	\$60.00	\$ _____
WOW! Wonders of Wetlands	\$40.00	\$ _____

MEALS

Thursday noon: Luncheon	\$15.00	\$ _____
Friday noon: Box Lunch with Exhibitors	\$ 5.00	\$ _____
Friday: Annual NMCTM/NMSTA/EEANM breakfast	\$12.00	\$ _____

Off-site Field Study Tours - 23 person limit

Thursday 1-5: Petroglyph National Park/ABQ Open Space	\$12.00	\$ _____
Friday 1-5: New Mexico Museum of Natural History	\$12.00	\$ _____
Friday 1- 5: Albuquerque BioPark- Rio Grande Zoo.	\$12.00	\$ _____

Total PAID by enclosed check/money order/purchase order	\$ _____ TOTAL
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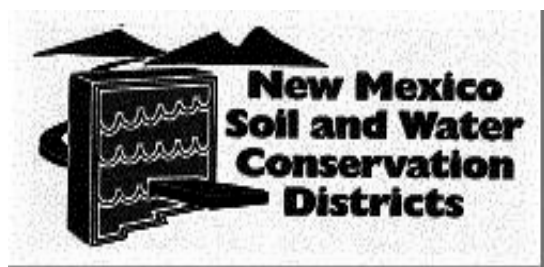
Make checks payable to NMSTA/NMCTM/EEANM, NOTE: P.O. Number _____

Please retain a copy for your records and return this form (with payment or Purchase Order) by October 15, 2004 to:
NMSTA/NMCTM/EEANM, Making Connections, P.O. Box 30304, Albuquerque, NM 87190

For further information contact Mary Williams – mwilliams2205@comcast.net or 505-344-2778.

***Please note:** For conference scholarship information contact Deb Thrall at 505-277-0718 or dthrall@unm.edu.

Hotel information: Please make your own reservations ASAP. Rooms are on reserve for the conference at MCM Elegante Hotel, Albuquerque, at Menaul and University. To make reservations call 1-800-465-4329 or 505-884-2511.



Curriculum Resource

FOOD, LAND, AND PEOPLE

- This environmental curriculum is designed for use with preK-12th grade classes.
- It covers almost every school subject offered, like math, science, social studies, language arts, and more.
- The lessons are ready for the teacher to use. They include an overview, materials needed, and step by step instructions for the children. These lessons are hands on and very easy to use. The lessons have also been aligned with the state standards.

More Information:

Amber Hughes
Educational Coordinator
505-981-2479

abchughes@delcity.com

ROLLING RIVERS TRAILER

Loaded with several hundred pounds of sand and a self-contained tank for pumping and re-circulating water, bright blue utility trailers are ready to provide water education to New Mexico school children. The **New Mexico Rolling Rivers** are modeled on trailers that were designed and used in Colorado. The **Rolling River** is a five by ten foot utility trailer with a six-inch deep trailer bed that is filled with sand (actually recycled plastic granules). A meandering river or two are scooped out, running from one end to the other. Small figures of cows, horses, houses, a barn, corral, and parking lot with cars and farm equipment placed on top, form a simulated village. Trees, foliage, and a few rocks line the riverbank.

When water is turned on at the top of the watershed, it flows through the river and can be used to demonstrate a variety of water lessons: **river energy, riparian area, erosion, non-point pollution, and effects of diversion.**

There are six trailers in six regions in New Mexico; Cuba, Clovis, Estancia, Las Vegas, Roswell, and Truth or Consequences. The NMACD website www.nm.nacdnet.org has **Rolling Rivers** scheduling. To schedule, call:

Region-based Water Trailers

Aztec-based/San Juan- Monique Stone: 334-3090 #3
Cuba-based/Cuba- Peggy Ohler: 289-3950
Estancia-based/E. Torrance- Brenda Smythe: 384-2272 #103
Las Vegas-based/Tierra y Montes- Carla Garduno: 425-9088
Roswell-based/Chaves- Joy Wagner: 622-8746 #3
Truth or Consequences/Sierra- Merry Jo Fahl: 894-2212

Individual District Water Trailers

Carlsbad	628-1532	Judy Bock
Lea	396-0707	Bethany Brazil
Carrizozo	648-2941	Sue Stearns
Otero	437-3100	Vicky Milne
Ciudad	761-5446	Susan Rich
E Rio Arriba	753-0477	Mary Sanchez
Grant	388-1569	Martha Woodward

NMACD Educational Coordinator

981-2479 Amber Hughes

NMACD Website – Mary Lou Ballard, email: marylou@zianet.com
785-2306 or 826-3244



2004 Environmental Summer Academy, Silver City, NM

(Waters Edge from page 1) Richard W. Becker, PhD, New Mexico State LEP Coordinator, and Dana Vackar-Strang, Education Specialist, New Mexico State Land Office/Co-coordinator, New Mexico LEP, under a grove of willow trees at Lake Roberts, New Mexico as participants of the 2004 WERC Summer Environmental Academy held the third week of July. A few mosquitoes and flies did not dampen our enthusiasm as we sat looking out at clear water, ducks and dragonflies. The location was only a few miles east of the Gila Cliff Dwellings in the heart of the Gila National Forest, very near the Gila Wilderness (which Aldo Leopold helped establish in 1924!!!).

The 2004 WERC Summer Environmental Academy is sponsored by WERC (a partnership comprised of New Mexico State University, University of New Mexico, New Mexico Institute of Mining and Technology, Dine College, Sandia and Los Alamos National Laboratories). Other contributing partners included the New Mexico Environment Department- Surface Water Quality Bureau, New Mexico State Land Office, and the Gila National Forest. The purpose of the Summer Environmental Academy is to increase awareness of how science, technology and mathematics relate to studies (and careers) on environmental topics. Dr Deb Thrall and Brian Swain, WERC Coordinators, invited the New Mexico Leopold Education Project to participate in this learning adventure. High school students and their teachers from New Mexico and West Texas were invited.

Upon arrival, students select one of three topics under the theme, "Sustainable Use of Natural Resources" for intensive study. The topics include Forest Health, Watershed Health, and Sustainability-The Land Ethic. Each group, over the course of

three days, toured selected areas of the Gila National Forest where they met with professionals from different agencies as well residents involved in various issues that interface across the watershed.

A total of twelve high school students and seventeen science teachers were introduced to the Leopold Education Project and the writings of Aldo Leopold. A few individuals had read A Sand County Almanac (ASCA).

One teacher, a multi-generational local, noted how he had always thought of Aldo Leopold as "hermit-like", similar to John Muir. This teacher's awareness changed after reading articles shown on a poster board display featured at the conference. This display emphasized Aldo's efforts to organize game protective associations in New Mexico and his work as a deputy game warden while living in Albuquerque, New Mexico

The Sustainability-The Land Ethic's group were introduced to the essays in ASCA by reading THE GREEN PASTURE (August) during our visit to Lake Roberts. Each participant read, in order, a laminated page displaying one paragraph from the essay. As we read, a great blue heron stood near the water's edge, across the lake, no doubt hearing the reading and responding conversation. Following the reading, with paper and pencil in hand, the group proceeded to capture some of their visual and auditory impressions through sketching. As a result, all group members commented on the elegance of the writing. They became aware (*see Waters Edge, page 14*)

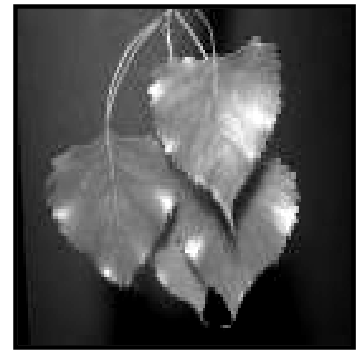
Bosque Ecosystem Monitoring Program

(BEMP)

Field Participation

At

Bosque School



BEMP is.....

- a **long-term ecological monitoring project** that gathers and shares vital information on the ecology of the Rio Grande Bosque
- a **community outreach program** that raises awareness and understanding of the Rio Grande Bosque
- **people helping** the Bosque by collecting scientific information used to guide sound ecosystem management
- **people learning** more about the environment around them

Students will...

- **directly connect themselves with the bosque environment**
- **learn about and participate in a long-term monitoring project**



Trips can be partial or full day.

Travel reimbursement is available.

We can accommodate 1-2 classes per visit.

For more information on BEMP go to www.bosqueschool.org

and click Science Programs.

Contact:

Adam Gebauer, BEMP Field Coordinator

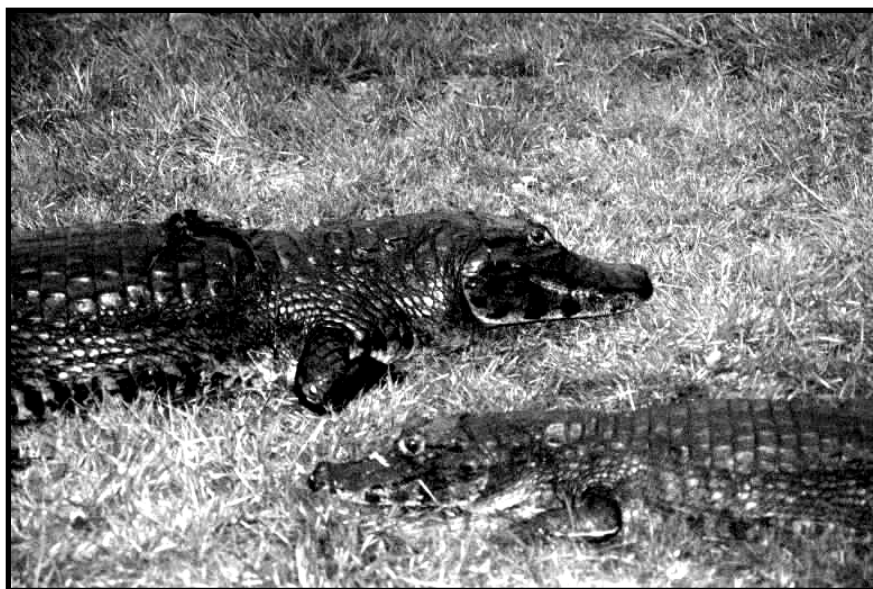
4000 Learning Rd NW

Albuquerque, NM 87120

Tel: 898-6388 Email: ageba@bosqueschool.org

(Brazil from page 5) coati, giant otters, deer, capybara (largest rodent in the world) and water buffalo. Nearly 700 species of birds live in the Pantanal, many of which migrate to North America. Unlike the Amazon where the dense jungle flora hides most animals, the openness of the Pantanal allows the visitor to view hundreds of animals daily.

Environmentally, of primary concern in the Pantanal is the development of the *hydrovia*, the immense dredging project of the Rio Paraguai. The *hydrovia* will straighten the meanders, deepen the channel, and empty the basin much more quickly than it currently drains. In essence, the Pantanal will most likely no longer exist as we know it today. This impending environmental disruption is not supported by most Brazilians, but is pushed by most Argentines, Bolivians, Paraguayans, and Uruguayans as a way to increase international trade. Ocean-going vessels will be able to travel far into the interior lands upon completion of the *hydrovia*. Segment, by segment, within each of the supporting countries, the *hydrovia* project progresses, encroaching closer to Brazil. Only with explicit and rapid actions can the project be halted.



Jacare (spotted caiman) of the South Pantanal, Baia Bonita, Necholandia.

In addition to the Pantanal studies, the NMSU group spent one week in the Brazilian Amazonas, exploring *igarapé* (creeks within the jungle), *igapó* (flooded forest during the rainy season, dry during the remaining part of the year), and *terra firma* (land that does not flood at any time during the year). Teacher-participants visited and learned about indigenous Amazonians, how they live, cultural practices, education in the villages, and the importance of the vitality of the jungle for their livelihood. The group briefly visited the Iguaçu Falls area, Mata Atlantica (Atlantic

rain forest), and Chapada dos Guimarães (highlands above the Pantanal).

A highlight of the experience for participants was an overnight campout deep in the Amazonian jungle. Here is one individual's story of the campout.

"Following a canoe ride through the dense igapó, one igarapé to the next, and a short hike on terra firma, we came to an area with a small thatched roof shelter with no walls. We hung our hammocks, draped with mosquito netting, between two trees for our night's sleep.

Our evening meal was cooked over an open fire and consisted of grilled peixe (fish), frango (chicken), and abacaxi (pineapple). Fresh fruits complemented the delicious forest feast. Following sharing of indigenous folklore of Brasil and New Mexico, we settled into our hammocks for a peaceful sleep under the dark, star-filled southern skies. The air was cool, the soft breeze caressing us into deep slumber...until 3:30AM...when we awoke to soft sprinkles of rain that quickly became torrents.

Within a short minute of scurrying out of hammocks, searching for flashlights, checking shoes for crawling creatures, we were drenched in the rain forest downpour. We waited out the rain under the small thatched shelter, gathered our belongings, and broke camp. Amidst the chilly tropical downpour, with little sleep, laughter and entertaining stories of the night cemented a coherent bond we will always treasure."

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(Waters edge from page 11)

of while reading and listening to this essay and the details that were described.

Later in the week, during an introductory workshop on A Lesson in Land Ethics, teachers experienced versatility of other activities and essays such as HOME RANGE and JANUARY THAW. Our group also discussed including a community service/service-learning component to the Leopold Education Project. To create future partnerships and continued interest in LEP and other Summer Environmental Academy curricula, the Environmental Education Association of New Mexico (EEANM) is offering \$250 for the best proposal from each of the three teacher groups participating in Project Wet, Project Learning Tree, and Leopold Education Project. The proposal must utilize the curricula the teacher learned, emphasize team-teaching and include a community service/service-learning component. Teachers concluded their Academy participation by developing a pre-proposal to take back to their schools with the intention of solidifying partnerships, teacher teams, and a community service/service learning component to the project. Teachers will submit solid proposals to Richard Becker, Ph.D., in December for an opportunity to apply for the competitive award.

In addition, students finished an intense week by developing a fifteen-minute power point presentation to share their week's experiences and their particular group topics. Presentations occurred in front of the entire Academy as well as dignitaries from Silver City, New Mexico. Accompanying these presentations were five page papers written by the student groups. The beauty of this week long program not only exposed students and teachers to important environmental concerns the region and state faces, but instilled work ethics and exposed them first hand to nature. Special thanks is given to our students (Serge Shkuro, Angel Lee Nook, Mathew Stott, Scott Zhang) and teachers (Shelby Alexander, Elizabeth Hicks, Elias Solis, Todd Pugmire, Daniel Mastry, Priscilla Mathena) who engaged us in a remarkable experience of "learning to read" the landscape.

For more information on the Summer Science Academy or the New Mexico Leopold Education Project, contact Richard W. Becker, PhD.

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Funding Ideas...



Do you know a teacher with an environmental idea?

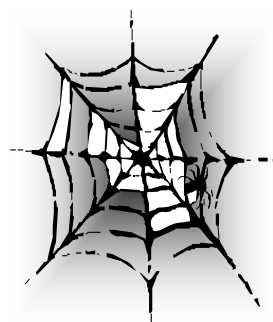
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EEANM Web Site has Online Forums

The Environmental Education Association of New Mexico has added online forums to its website. The General Discussion forum is open to any and all discussions regarding environmental education and its impacts. This is your opportunity to find information, vent about bothersome issues, or research an important topic in a friendly, sympathetic environment.

Do you have an opinion? We would like to hear from you. Please go to www.eeanm.org and click on "Online Forums" in the top left corner of the page. Either respond to one of the existing threads or start a new thread for discussion.

You are not required to register to post or reply to a topic. However, registration does allow you to enter a user profile including an e-mail address. If you choose not to register, your profile will remain as "guest" and you will not be able to send messages to other registered members or participate in forums that require registration.

Stay Connected with EEANM

www.eeanm.org

WERC Contests Encourage Students to Learn about Environmental Issues. New Mexico students from seventh through twelfth grade are challenged to learn about the environment and recycling through three contests: an art contest, an essay contest and an environmental team project contest. The contests are sponsored by WERC: A Consortium for Environmental Education and Technology Development. Visit www.werc.net/outreach/k-12_programs for details about the contests.

WERC High School Environmental Design Contest Task Announced. High school teams are invited to participate in the annual WERC High School Environmental Design Contest in competition for cash awards. The high school competition has been run in conjunction with a university-level competition since 1998. This year, teams will be challenged to develop and demonstrate a treatment technology for wastewater containing ammonia and hydrogen peroxide. The 2005 High School Design Contest will be held April 3-6, 2005 at New Mexico State University in Las Cruces, New Mexico. The registration deadline is December 6, 2004. For more information, visit www.werc.net/contest and click on High School Contest.

WERC Schedule of Events

Event	Date	More Information
Bi-National Water Festival, El Paso, Texas	Nov. 5	bswain@nmsu.edu
Groundwater Institute for Teachers	Nov. 10	bswain@nmsu.edu
Discover a Watershed: The Rio Grande/Rio Bravo	Nov. 10	bswain@nmsu.edu
Project Learning Tree's Energy and Society	Nov. 10	dthrall@unm.edu
High School Environmental Design Contest Registration Deadline	Dec. 6	bswain@nmsu.edu

EEANM Member Application

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- ☐ Occasionally, other EE organizations ask for the EEANM mailing list. The EEANM Board is selective in giving out the list to organizations with similar interests or mission(s).
- ☐ Check here if you object to your name being given to other organizations.

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