# WEB SITE RESOURCES FOR ENVIRONMENTAL EDUCATION



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The following list was compiled by the USFWS, National Conservation Training Center's Division of Education Outreach with help from many FWS staff. As with all web site information, they do change overtime. We want to include your site and materials too. Send information and resource updates to <a href="mailto:Juanita\_Gustines@fws.gov">Juanita\_Gustines@fws.gov</a>. This list available in electronic format at <a href="http://library.fws.gov">http://library.fws.gov</a> 09/2004

#### 1. Environmental Education Resources - General

#### EE- Link

http://www.eelink.net

Provides and organizes Internet resources to support, enhance and extend effective EE in grades K-12.

#### **EETAP Resource Library**

http://www.eetap.org/ University of Wisconsin – Stevens Point College of Natural Resources Stevens Point, WI 54481 (715) 346-4958

The Environmental Education and Training Partnership (EETAP) is a consortium of leading education organization and institutions working to build high quality, sustainable, coordinated and comprehensive EE program across the United States. Funded by EPA's Office of EE.

Copy of the Environmental Education Information Providers Directory created by EETAP is available in PDF format at: <a href="www.ag.ohio-state.edu/~eetap/index.html">www.ag.ohio-state.edu/~eetap/index.html</a>

#### **GreenCOM Strategic Environmental Communication**

http://www.greencom.org

GreenCOM promotes the practice of education and communication (EE&C) worldwide and conducts projects in USAID countries.

#### **Eisenhower National Clearinghouse**

#### http://www.enc.org

Identifies effective curriculum resources, creates high-quality professional development materials, and disseminates useful information and products to improve K-12 mathematics and science teaching and learning.

1929 Kenny Road Columbus, OH 43210 1-800-621-5785

#### ERIC Clearinghouse for Science, Mathematics and Environmental Education

#### http://www.ericse.org

Works to facilitate improved teaching, learning and scholarship in science, mathematics and EE through the active exchange of information and services.

1929 Kenny Road Columbus, OH 43210 1-800-276-0462

# North American Association for Environmental Education

#### http://www.naaee.org

Since 1971 the Association has promoted EE and organizations dedicated to improving education. Use link to locate the EE Guidelines and other publications from the National Project for Excellence. (See also EPA and EElink sites for these same publications.)

410 Tarvin Road Rock Spring, GA 30739 706-764-2926

#### **National Environmental Directory Project**

http://www.environmentaldirectory.net/search.htm

Missoula, MT 59807

Creates regional environmental directories, which together form a comprehensive national database.

#### **National Environmental Education Advancement Project**

http://www.uwsp.edu/cnr/neeap/

Provides information on the status of State-level EE.

#### **Second Nature**

# http://www.secondnature.org

Helps colleges and universities expand their efforts to make environmentally sustainable and just action a foundation of learning and practice.

#### EIC - Using the Environment as an Integrating Context for Learning.

(State Education and Environment Round Table) www.seer.org

#### National Environmental Education and Training Foundation (NEETF)

http://www.neetf.org/

#### **Classroom Earth**

New Free Environmental Education Support Site for America's Teachers and Home Schoolers <a href="http://www.classroomearth.org/">http://www.classroomearth.org/</a>

#### The EE-Works

The EE-Works is a service of the National Environmental Education and Training Foundation <a href="http://www.theeeworks.org/index.html">http://www.theeeworks.org/index.html</a>

#### **Environmental Protection Agency's Office of Environmental Education**

http://www.epa.gov/enviroed/webguide.html

Materials Available from EPA's Web site:

- **1.** "EE Materials: Guidelines for Excellence" guidelines for developing and evaluating EE materials.
- **2.** "EE Materials: Guidelines for Excellence The Workbook" a self-guided workbook that teaches individuals how to effectively use the materials guidelines.
- 3. "Excellence in EE Guidelines for Learning (K-12)" guidelines for learner performance and achievements in K-4th, 5-8th, and 9-12th grades and for using EE as a means for meeting standards set by the traditional disciplines.
- **4**. "Excellence in EE: Guidelines for Learning (K-12) Executive Summery & Self Assessment Tool" summarizes the learner guidelines and provides a self-assessment checklist for determining the degree to which curricula and programs meet these guidelines.
- **5**. "Guidelines for Excellence: The Initial Preparation of Environmental Educators" guidelines for what educators need to know to effectively teach EE.
- **6**. "Evaluating the Content of Web Sites: Guidelines for Educators" guidelines to help educators evaluate the quality and usefulness of web sites for educational purposes.

- 7. "Evaluating the Structure of Web Sites: Guidelines for Educators" guidelines to help educators communicate to web designers the needs of their users to improve the educational effectiveness of the site.
- 8. "EE Collection: A Review of Resources for Educators, Volumes 1, 2, and 3."
- **9.** "Environmental Education Toolbox" a collection of publications for educators who conduct EE teacher in-service programs on topics such as designing effective workshops, integrating EE into the school curriculum, approaching environmental issues in the classroom, urban EE, and using community resources.
- \* "Guidelines" materials are also available through eelink and NAAEE web sites.

#### 2. Education Standards and Terms

#### **Education Standards Sites**

# U.S. Department of Education

Start at:

- 1) U.S. Department of Education's Education Resources Organization Directory: <a href="http://bcol02.ed.gov/Programs/EROD/index.cfm">http://bcol02.ed.gov/Programs/EROD/index.cfm</a>
- 2) Select a state
- 3) Select link: State Education Agency/State Department of Education
- 4) Select State Education Agency's URL
- 5) Search using any combination of these terms (Each state is different)

Curriculum Content Instructional
 Frameworks Standards Mandates
 Guidelines Initiatives Benchmarks

· Goals and Objectives

#### **Education World**

**National and State Standards** 

http://www.educationworld.com/standards/

#### **Education Terms**

Association of Supervision and Curriculum Development

http://www.ascd.org/educationnews/pr/sylvan/glossary.html

North Central Regional Educational Laboratory Glossary of Education Terms and Acronyms http://www.ncrel.org/sdrs/areas/misc/glossary.htm

#### 3. Electronic Newswires, Discussion, and Listserves

#### **Ed Gateway**

http://www.edgateway.org

Offers educators and their organizations the ability to find, organize, and share events, discussions, organizational information and documents.

#### **PEN Weekly Newsblast**

PEN@publicEducation.org

PEN NewsBlast is a free weekly e-mail newsletter featuring school reform and school fundraising resources. The PEN NewsBlast is the property of the Public Education Network, a national association of 8 local education funds working to improve public school quality in the low-income communities nationwide. To subscribe or unsubscribe, visit <a href="http://www.PublicEducation.org">http://www.PublicEducation.org</a>

#### **NAAEE EE News**

www.eelink.net/ee-news-signup.html

#### WestEd

www.wested.org/

#### **EETAP Updates**

www.eetap.org/eetapbulletin.html

#### **FWS VOICES**

To subscribe contact Laura Jones at Laura \_Jones@fws.gov your VOICES moderator. A FWS listserve that has bi-monthly postings. It is brought to you by the National Conservation Training Center's Division of Education Outreach. Moderated by Laura Jones, Education Specialist. By subscribing to this listserve, you can submit information or questions for posting to FWS folks on this list. All postings are synthesized and compiled by Moderator.

#### **FWS OUTREACH Listserve**

To subscribe, post information or questions to FWS folks on this list serve, contact Anita at **Anita\_Nogera@fws.gov.** 

Created to facilitate discussions among the many people dealing with outreach. Everyone interested in outreach and inreach in the Service is invited to subscribe. Managed by Anita Noguera, National Outreach Coordinator, this listserve is <u>not</u> moderated.

#### **FWS IMBD Listserve**

To subscribe, send an e-mail to FWS-IMBD-request@lists.fws.gov with "subscribe" in the subject line. Managed by Jennifer Wheeler, the Service's IMBD Coordinator, at IMBD@fws.gov or 703-358-2318. This service was created to facilitate communication among folks involved in IMBD activities, and receives the greates traffic January-May. It serves as a forum for ideas, announcements, reminders, recognitions, and other information relevant to IMBD. Open to all (within and outside the Service); not moderated.

# 4. Non-government Organization Environmental Education Resources

(This list is **vast**, so we have just given you a few as samples. Please use eelink and specific search words for topic, organization, grades,, etc. to locate others.)

Adopt Your Watershed: <a href="http://www.epa.gov/adopt/">http://www.epa.gov/adopt/</a> Boy Scouts of America: <a href="http://www.scouting.org">http://www.scouting.org</a> Earth Force: http://www.earthforce.org/

4-H: http://www.4-h.org/

Girl Scouts of America: <a href="http://www.girlscouts.org">http://www.girlscouts.org</a>
Give Water A Hand: <a href="http://www.uwex.edu/erc/gwah">http://www.uwex.edu/erc/gwah</a>

National Fish and Wildlife Foundation/Conoco Phillips: http://www.birdig.com

National Wildlife Federation: <a href="http://nwf.org">http://nwf.org</a>

Natural Resources and Environmental Management: <a href="http://www.nrem.net">http://www.nrem.net</a>

Project Learning Tree (PLT): <a href="http://www.plt.org/">http://www.plt.org/</a> Project WET: <a href="http://www.montana.edu/wwwwet/">http://www.montana.edu/wwwwet/</a> Project WILD: <a href="http://www.projectwild.org/">http://www.projectwild.org/</a>

Recreation Boating & Fishing Foundation: http://www.rbff-education.org

Student Conservation Association: http://www.thesca.org

World Wildlife Fund: <a href="http://www.wwf.org">http://www.wwf.org</a>

YMCA Earth Service Corps: <a href="http://www.yesc.org">http://www.yesc.org</a>

# 5. Government Agency Environmental Education Resources

EPA (Environmental Protection Agency): <a href="http://www.epa.gov">http://www.epa.gov</a>

1. EPA's Office of Environmental Education <a href="http://www.epa.gov/enviroed">http://www.epa.gov/enviroed</a>

2. EPA's Federal Task Force on EE <a href="http://www.epa.gov/enviroed/ftfee.html">http://www.epa.gov/enviroed/ftfee.html</a> Mission of Task Force: To coordinate, publicize and promote the federal government's environmental education program and the resources available through the various participating agencies. (The task force includes the following agencies plus others. Contact Drew Burnett, at (202) 564-0448 brunett.andrew@epa.gov)

NRCS (Natural Resource Conservation Service): <a href="http://www.nrcs.usda.gov/">http://www.nrcs.usda.gov/</a>

USDAFS (Forest Service): http://www.fs.fed.us/

BLM (Bureau of Land Management): http://www.blm.gov/education

NPS (National Park Service): http://www.nps.gov/index.htm

USFWS (United States Fish and Wildlife Service): http://www.fws.gov/

# 6. FWS - EE Resources for Teachers and Students

#### http://sssp.fws.gov/sssp.html

Provides extensive information on shorebirds and on the Shorebird Sister School program. Has a link for kids. Available in English, Spanish, Portuguese, Japanese and Russian.

#### http://endangered.fws.gov/kids/index.html

Provides numerous activities for kids, (puzzles, games, etc.) plus a link to teacher material.

#### http://training.fws.gov/

Provides a catalog of training and lists of other events provided through the FWS National Conservation Training Center

#### http://library.fws.gov/

Provides links to numerous online publications of FWS, links to lots of other libraries and literature search capabilities including the FWS NCTC library.

#### http://training.fws.gov/library/pubs3.html

Provides links to numerous FWS publications most of which are targeted at adults.

#### http://pictures.fws.gov/

Provides links to numerous photos, works of art, slide shows, endangered species information plus links to Park Service and Bureau of Land Management collections.

#### http://images.fws.gov/

Provides hundreds of images of various wildlife species. All images are available for public use.

#### http://info.fws.gov/art.html

Provides links to images of all the Federal Duck Stamps, to some of the Louis Agassiz Fuertes and Robert Savannah art collections plus links to other sources of wildlife art.

#### http://distancelearning.fws.gov/

Provides a schedule of events plus information on how to participate in NCTC distance learning events.

#### http://training.fws.gov/history/index.html

Provides links to numerous discussions of the history of conservation as well as links to copies of historical documents.

#### http://www.fws.gov/who/exhibits.html

Provides links to numerous educational exhibits dealing with wildlife history, biology and other resource related issues and art.

#### http://species.fws.gov/

Provides PDF and HTML fact sheets on numerous species plus links to other sources.

#### http://invasives.fws.gov/

Provides general invasive species information plus links to other sources.

#### http://migratorybirds.fws.gov/shrbird/shrbird.html

Provides a good question and answer presentation on shorebirds with photos and links to other sources.

#### http://volunteers.fws.gov/

Provides information on how individuals and groups can do volunteer for work on National Wildlife Refuges. Gives information on types of activities one might participate in and provides an application form.

#### http://refuges.fws.gov/history/index.html

Provides information on the history of the National Wildlife Refuge System, as well as a listing and description of threatened and endangered species.

#### http://sssp.fws.gov

Shorebird Sister Schools allows students to track Arctic shorebirds as they migrate northward to their nesting grounds in Alaska.

#### http://ga.water.usgs.gov/edu

United States Geological Survey Water Science for Schools. Tones of information, questionnaires, maps and pictures about water use information in your home, city and nation.

#### http://endangered.fws.gov/kids/how help.htm

You and your school: What can you do to help conserve rare, threatened, and endangered species and their habitats? You will find Fact Sheets in .pdf format, How to Tips, Habitat Restoration, and Data Gathering.

#### http://birds.fws.gov/IMBD

Provides resources for celebrating International Migratory Bird Day, including to the on-line catalog for IMBD materials and support materials for the annual theme.

#### http://birds.fws.gov/Education.htm

Provides links to the Service's Education materials on birds.

#### http://duckstamps.fws.gov/junior/junior.htm

The Federal Junior Duck Stamp Conservation and Design Program is a dynamic arts curriculum designed to teach wetlands and waterfowl conservation to students in kindergarten through high school.

# 7. FWS – EE People and Programs

Fish & Wildlife Service Environmental Education Resources (partial list) *September 1, 2004* 

## National Office for FWS Division of Refuges

U.S. Fish and Wildlife Service Division of Refuges 4401 N. Fairfax Drive, Room 670 Arlington, VA 22203 (703) 358-2029 Fax: (703) 358-1826

#### **Division of Visitor Services & Communications**

Kevin Kilcullen - Vacant Laura Miles - Secretary

#### **Branch of Visitor Services**

Deborah McCrensky (703) 358-2386

- Environmental Education & Interpretation
- Friends & Volunteer Coordinator
- Cultural Resources, Museum, History
- Concessions, Uniforms

Rebecca Halbe - Recreation fees, Customer Service, Signs Jim Banks - Job Corps Hannah Burns - Job Corps - Public Use

#### **Branch of Communications**

Vacant, Outreach Coordinator
Dennis Sprichard - Centennial Coordinator
Laurie Shaffer - Commission Liaison
Steve Farrell - Writer/Editor
Vacant - Visual Information Specialist
Vacant - "Fulfilling the Promise" Coordinator

## National Office for FWS Migratory Bird Program

U.S. Fish and Wildlife Service Migratory Bird and State Programs 4401 N. Fairfax Drive, Mail Stop MBSP Arlington, VA 22203 (703) 358-1769 Fax: (703) 358-2217

Division of Migratory Bird Management
Julie St. Louis (703) 358-1824 -- Education and Outreach
Jennifer Wheeler (703) 358-2318 -- International Migratory Bird Day Coordinator
- Educational & Promotional Materials on Birds, including pamphlets, fact sheets, posters

Division of Bird Habitat Conservation Robert Williams (703) 358-2002 - Junior Duck Stamp Contact

# **Region 1**-Environmental Education Resources

USFWS, R1, External Affairs 911 N.E. 11<sup>th</sup> Ave Portland, OR 97232-4181 Outreach Team (503) 231-6120

Jeanne Clark, Editor: Out & About Newsletter Stone Lakes NWR 1624 Hood-Franklin Road Elk Grove, CA 95758 (916)775-4421 Fax: (916)775-4407

**Programs:** Out & About Newsletter (published quarterly for Region 1 employees)

Tony Faast USFWS, R1, Federal Aid 911 N.E. 11th Ave Portland, OR 97232-4181

(503) 231-6123 Fax: (503)231-6996

**Programs:** Environmental Education and Outreach (Endangered Species

Jeopardy Game, A Field Guide to Outreach)

Jane F. Chorazy, Outreach Specialist,

Region 1, External Affairs

911 N.E. 11th Ave

Portland, OR 97232-4181

(503) 231-2251

**Programs:** Cargo For Conservation (several kits available for use); Scientists in the Schools;

EE and Outreach program materials available; Pacific Salmon brochures and

coloring books

In the Field: San Francisco Bay National Wildlife Refuge Complex

Education Sites: Visitor Center, Fremont EEC, Alviso, San Pablo Bay NWR,

Valley

P.O. Box 524

Newark, CA 94560

Fran McTamaney (408)262-5513 Fax: (408)262-2867

**Programs:** Trekking the Refuge, Wetland Round-Up, and In the Mare On Mare Island

Educator-Led Field Trips - K-6 grades; Mud Studies and Bay Pollution in-class activity - 3rd grade; Seabird Restoration Program (in-class activities)- 2-6 grades;

Slow the Flow Educator-Led Field Trips - 5-12 grades, partnership with a

neighboring pollution control plant.

**In the Field:** Stone Lakes NWR

1624 Hood-Franklin Road Elk Grove, CA 95758

(916)775-4421 Fax: (916)775-4407

**Programs:** Volunteer/docent training; field trips; school presentations; projects with scouts;

currently developing educator resource guide.

**In the Field:** Sacramento National Wildlife Refuge

725 County Rd 99 W Willows, CA 95988

Denise Dachner (916)934-2801 Fax:(530)934-7814

**Programs:** Discover the Wonders of our Wetlands: Explore our wetlands on your own:

Wetland Walk with Trail Guide, Auto Tour with Viewing Platform and Radio broadcast, Discovery Room with Wildlife Exhibits, Discovery Pack with five self

guided activities. Or join Refuge staff for reservation E.E. programs.

CARGO for Conservation Endangered Species presentations, Field Trips and

Educator Workshops; National Earth Stewards site California Federal Junior Duck Stamp Program

In the Field: Ecological Services Sacramento, Endangered Species Division

3310 El Camino Avenue, Suite 130 Sacramento, CA 95821-6340

(916)979-2728 Fax:(916)979-2723

**Programs:** Habitat Evaluation Procedure (HEP)-hands-on activity for Girl Scouts.

**In the Field:** Oregon State Office

2600 S.E. 98th Ave., Suite 100

Portland, OR 97266

Phil Carroll (503)231-6179

Information and Education Specialist

Leavenworth National Fish Hatchery

12790 Fish Hatchery Rd. Leavenworth, WA 98822

(509)-548-7641 Fax: (509-548-6263

**Programs:** Nasikelt River Discovery Program (leavenworth.fws.gov/nasikelt.htm)

Nasikelt River Discovery Program is a joint effort of the Leavenworth National

Fish Hatchery Complex, U.S. Fish and Wildlife Service and the

Leavenworth/Okanogan/Wenatchee Ranger Districts, U.S. Forest Service to coordinate a diverse menu of natural resource education opportunities for schools in the North Central Washington area. Curriculum workshops, learning models, discovery boxes, guided hatchery and winter life snowshoe tours, special events

for National Fishing and Boating Week and home of the award winning

Wenatchee River Salmon Festival are activities and resources offered through the

Nasikelt Program.

**In the Field:** Little White Salmon National Fish Hatchery

56961 SR14

Cook, WA 98605

Darlene Anderson (509)538-2755

**Programs:** "The Fish Hatchery Next Door"-an educator's guide (an Oregon Dept. of Fish and

Wildlife publication), Project SHARE (salmonid hatchery awareness & resource education), salmonid environmental education programs- (hatchery and aquatic

related)

In the Field: Ridgefield NWR

301 N 3rd Avenue. Ridgefield, WA 98642 Assistant Hatchery Manager

Yvette Donovan (360)887-4106 Fax:(360)887-4109

**Programs:** Educator workshops, teacher-led field trips, educator guide

**In the Field:** Nisqually NWR

100 Brown Farm Rd. Olympia, WA 98516

Sheila McCartan (360)753-9467 Fax:(360)534-9302

**Programs:** "Where the River Meets the Sound" Educator Guide with on-site

activities and pre-and post field trip activities. Environmental Education

Center with exhibits and activities. Teacher-led field trips with

assistance by volunteers. Field trip orientation workshops for teachers.

Lending library. Federal Junior Duck Stamp state coordination.

In the Field: Grays Harbor National Wildlife Refuge

c/o 100 Brown Farm Road

Olympia, WA 98516

Sheila McCartan (360)753-9467 Fax:(360)534-9302

**Programs:** "Grays Harbor Shorebird Education Guide" with in-class on on-site

activities. Classroom presentations by staff and volunteers. Field trip assistance. Shorebird Education Trunk available for check-out. Shorebird

Festival Poster Contest and Shorebird Festival Fun Fair.

**In the Field:** Stillwater NWR Complex

1000 Auction Road Fallon, Nevada 89406

Janet Schmidt (775)428-6452 Fax: (775)423-5158

**Programs:** Spring Wings Bird Festival, Field Trips, In-school presentations

In the Field: San Luis National Wildlife Refuge

P.O. Box 2176

Los Banos, CA 93536

John Fulton (209)826-3508 Fax: (209)826-1445

**Programs:** EE partnerships with cities, counties, non-profits, and with State of California

agencies for teacher workshops; "Trekking the Trail of the Tiger Salamander" vernal pool curriculum-includes teacher training, loaner-trunks, field-trips and

classroom visits; Songbird Blues loaner trunk; Blue Goose mascot suit

coordination; Wild on Wetlands Weekend wildlife festival- includes Junior Duck Stamp Contest entries, tours and workshops; Docent-led fieldtrips for geology, hydrology, ethnobotany, ecology, and habitat management, tailored for state

standards for particular grade levels.

**In the Field:** Oregon Coast NWR Complex

2127 SE OSU Drive Newport OR 97365

Dawn Harris (541)867-4550 Fax: (541) 867-4551

**Programs:** Earth Stewards, Field Trips, In-class presentations on refuges and endangered

species, Shorebird Sister Schools Program (coming soon).

In the Field: Hanford Reach National Monument/Saddle Mountain NWR

3250 Port of Benton Blvd. Richland, WA 99352

Paula Call (509) 371-1801 Fax (509) 375-1096

**Programs:** Shrub Steppe resource cards for teachers, developing Shrub-steppe Bird Calls CD

ROM, Shrub-steppe Slide show, Annual Train the Teachers Workshop.

**In the Field:** Willapa NWR

3888 SR 101

Ilwaco, WA 98624

Outdoor Recreation Planner: Art Shine (360) 484-3482

**Programs:** Classroom nature programs given at area schools. Science stations field trip in

the spring for 4th graders. Interpreter lead birding walks.

**In the Field:** Hopper Mountain NWR Complex

2493 Portola Rd. Suite A

Ventura, CA

John Brooks/Bronwyn Davey (805) 644-5185 Fax: (805) 644-1732

**Programs:** Condor Recovery Program, On going efforts with outside media, bi- annual news

letter *Condor News*, local outreach about the condor. **Guadalupe - Nipomo Dunes NWR-** Chris Barr (805) 343-9151, regularly scheduled interpretative

hikes, Dunes Center Interpretative Center

**In the field:** Kilauea Point National Wildlife Refuge

P.O. Box 1128 Kilauea, HI 96754

Dave Aplin (808) 828-1413

**Programs:** Guided field activities for students, educator materials and workshops.

In the Field: Oahu National Wildlife Refuge Complex

65-590 Kamehameha Hwy, Suite 2C

Haliewa, HI 96712 (808)637-6330

**Programs:** Guided field programs for thousands of students each year conducted by private.

non-profit educational organizations.

In the Field: Pacific Island - External Affairs Division

Box 50088

Honolulu, HI 96850

Ann Hudgins (808)541-2749

**Programs:** Shorebird Sisters School Program, facilitates and coordinates field based

educational programming throughout the Pacific.

In the Field: Kealia Pond National Wildlife Refuge

P.O. Box 1042 Kihei, HI 96753 (808)875-1582

**Programs:** Guided field based programs led by Hawaii Nature Center.

**In the Field:** Kauai National Wildlife Refuge Complex

P.O. Box 1128 Kilauea, HI 96754

Kathy Batha (808) 828-0762 Fax: (808) 828-6634 Dave Aplin (808) 828-1413 Fax: (808) 828-6634

**Programs:** Educator workshops, field trips, traveling trunk for

classroom presentations, lending library, Hawaiian plant and animal activity

sheets, distance education programming.

In the Field: San Diego NWR Complex Education Programs and Curricula

Sweetwater Marsh NWR 1080 Gunpowder Point Drive Chula Vista, CA 91932

Barbara Simon (619) 691-1261 Fax: (619) 291-0447

Programs: "Sweetwater Safari," science and language-arts based, instructor lead, refuge field

trip for grades 3-6. Meets California science standards for 4<sup>th</sup> grade. Requires prior teacher and chaperon training session. City of Chula Vista Elementary School District provides an on-staff, full-time teacher at the Nature Center for all Chula Vista 4<sup>th</sup> grade students. Students spend time in the Center's classroom,

then on refuge trails.

**In the Field:** Tijuana Slough NWR

**Programs:** M.A.R.S.H. - Instructor/education department led field trips for elementary school

students. Requires prior teacher training session. Managed by the California Parks Department, our partners at the Tijuana Slough and Visitor Center. Tijuana River Water Testing Program - Water testing program for university/high school

students. Managed by CDP and funded by NOAA.

**In the Field:** Tualatin River National Wildlife Refuge

16507 SW Roy Rogers Road

Sherwood, OR 97140

Kim Strassburg (503) 590-5811

**Programs:** Currently this new urban National Wildlife Refuge is developing a variety of EE

programs to be available when the refuge opens to the public in mid-2005. Programs are scheduled to include: K-8 floodplain ecosystem curriculum and field trips; middle school Refuge Club; traveling trunks; and project-based

curriculum for high school.

**In the Field:** Deer Flat NWR

13751 Upper Embankment Road

Nampa, ID 83686

Susan Kain (208) 467-9278 Fax: (208) 467-1019

**Programs:** Field trips; school presentations; scout programs; Reading at the Refuge preschool

story time; Suitcase for Survival traveling trunk; and currently developing

Educators' Guide. Facilities include Visitor Center with Kidspace activity area, auditorium, and self-guided nature trail at Upper Dam and Environmental

Education Center at Lower Dam. Coordinate Idaho Federal Junior Duck Stamp

Program.

**In the Field:** Dworshak National Fish Hatchery

4147 Ahsahka Rd., P.O. Box 18

Ahsahka, ID 83520

Susan Sawyer, Information and Education Specialist (208)476-4591 Megan Johnson, Information and Education Assistant (208)476-4591

**Programs:** Hatchery in the Classroom program in area schools, Fin Bins with educator

resource guides, Hatchery field trips, teacher workshops for Project WET and Idaho Water Camp, Lewis and Clark related programs, outreach partnerships with communities and local agencies for Environmental Awareness Days, Forestry Tours, and other youth events, outreach partnership with Friends of Northwest Hatcheries, annual Open House and Kids' Fishing Days for National Fishing

Week at Dworshak and Kooskia NFHs.

#### **Complex Wide:**

**San Diego Wetlands** - Teacher packet. A guide to San Diego's wetlands and activities produced by SeaWorld and numerous partners including San Diego Refuge Complex.

#### **Region 2-Environmental Education Coordinator**

USFWS, Refuges & Wildlife P.O. Box 1306

Albuquerque, NM 87103

Juli Niemann, (505) 248-6635 Outreach Coordinator

Lori Jones, (505) 248-6484 Environmental Education and Boy and Girl Scout Coordinator **Programs:** Completing CD ROM for middle school age youth on habitat management.

**In the Field:** Tulsa ES

222 S Huston, Suite A Tulsa, OK 74127

Erich Langer (918)581-7458 Fax:(918)581-7467

**Programs:** Outreach Specialist, conduct teacher training, projects & scouts

In the Field: Phoenix ES

2321 W. Royal Palm Rd. Suite 103

Phoenix, AZ 85021

Jeff Humphrey (602)640-2720 Fax(602)640-2730

**Programs:** 15 min. video re: Partners for Wildlife program

occurring on land with endangered species, endangered species outreached information

specific to AZ, Mexican Wolf and California Condor

Program info.

In the Field: Bosque del Apache NWR

P.O. Box 1246 Socorro, NM 87801

Maggie O'Connell (505)835-1828 Fax:(505)835-0314

**Programs:** Naturalist training program, Bosque educ. curriculum

**In the Field:** Wichita Mountains NWR

Route 1. Box 448

Indianhonia, OK 73552

Claudine Daniels (405)429-3221 Fax:(580)429-9323

**Programs:** Educator materials, active Cameron University partnership and intern program,

environment ed. curriculum, Project WET, WILD, Learning Tree training,

campgrounds available for 2-3 day training courses, field trips.

In the Field: Sevilleta NWR

P.O. Box 124

Socorro, NM 87801

Kimberly King-Wrenn (505)864-4021 Fax: (505)864-7761

**In the Field:** Imperial NWR

P.O. Box 72217 Yuma, AZ 85365

Renee Robichaud (928)783-3371 Fax: (928)783-0652

**In the Field:** Las Vegas NWR

Route 1 Box 399

Kristin Kuyuk (505)425-3581 ext 201 Fax: (505)454-8510

**In the Field:** Bitter Lake NWR

4065 Bitter Lake Road

Roswell, NM 88201

Steve Alvarez (505)835-1828 Fax: (505)835-0314

**In the Field:** Salt Plains NWR

Route 1 Box 28 Jet, OK 73749

Emile Hile (580)626-4794 Fax: (580)626-4793

**In the Field:** Aransas NWR

P.O. Box 100

Austwell, TX 77950

Bernice Jackson (361)286-3559 Fax: (361-286-3722)

**In the Field:** Texas Mid-Coast NWR Complex

1212 N. Velasco, Suite 200 Angleton, TX 77515

Bryan Adams and Tom Schneider (979) 849-7771

**Programs:** We offer field trips and tours for both Brazoria and San Bernard NWR, and can

arrange for special programs for organizations within a reasonable distance. All these activities are available for both schools and other organizations, depending on staff availability. Events include Family Day at Brazoria NWR in the fall and Migration Celebration at San Bernard NWR in the spring. Our school field trips involve several thousand students annually. Both refuges are open daily from

sunrise to sunset for self-guided tours.

# **Region 3-Environmental Education Coordinator**

USFWS, Federal Building

1 Federal Drive

Fort Snelling, MN 55111-4056

Lauri Munroe-Hultman, EE Coordinator (608) 539-2311 Fax (608) 539-2703

Ken Garrahan, EE Coordinator (218) 736-9038

Kim Mitchell, Endangered Species Outreach Coordinator (612) 713-5337

**Programs:** Endangered Species

In the Field: Minnesota Valley NWR

3815 E. 80th St.

Bloomington, MN 55425 Matt Connor (612)854-5900

**Programs:** Wetland Trunk-on loan, Wolf Trunk, Tall Grass Prairie Trunk, Prairie Discovery

Trunk Watchable Wildlife Patch and works sessions for youth groups, Watching

Wildlife, A Skills Workshop.

**In the Field:** Prairie Wetlands Learning Center

602 State Highway 210 Fergus Falls, MN 56537

Ken Garrahan (218)736-9038 Fax (218)736-094

**Programs:** Environmental education and interpretation programs focus on the prairie pothole

region, with programs available for all ages year round. Curriculum-based environmental education programs are provided to grades K-12; programs are field-based, grade-level specific, and support National Science Education Standards and Minnesota Science Standards. A partnership between the USFWS and the ISD 544, the Prairie Science Class, brings 100 5th grade students to the Learning Center two hours daily for an integrated, field-based study of the prairie wetlands environment. Preschool programs, adult programs, and programs for youth or community organizations are handled on a request basis. Residential programs and facilities are also available year round for extended environmental education opportunities. Training sessions are offered in environmental education program development, methods and resources; a variety of trainings are also conducted throughout the year in topics relating to prairie wetlands ecology and wildlife management. Educational trunks are available for loan on a variety of topics. College internships in environmental education are available spring, summer, and fall.

**In the Field:** Sherburne NWR

17076 293rd Ave

Zimmerman, MN 55398

Nancy Haugen (763)389-3323 Fax: (763)389-3493

**Programs:** Oak savanna curriculum, Prairie Discovery Trunk for loan, Wetland Trunk for

loan, snowshoes available, teacher training.

In the Field: Shiawassee NWR Greenpoint Nature Center

6975 Mower Road Saginaw, MI 48601

Becky Goche (517)777-5930 Fax: (517)777-9200

**Programs:** Wetland curriculum, summer programs, school/teacher workshops

In the Field: Neal Smith NWR Prairie Learning Center

P.O. Box 399

Prairie City, IA 50228

Scott Ford (515)994-2415 Fax:(515)994-2104

**Programs:** Project Bluestem Prairie/Savanna curriculum and extensive school programs,

Summer programs, Iowa Corps and *Project Bluestem* Teacher training programs, Traveling Song Bird, Prairie, and Elk Trunks, Endangered Species Trunk and program, Scout and Brownie Badge programs, Eagle Scout projects, Refuge is the

designated State Coordinator for Jr. Duck Stamp program, Iowa Student Environmental Coalition program, Volunteer and Stewardship program.

# **Region 4**-Environmental Education Coordinator

USFWS, External Affairs 1875 Century Blvd Atlanta, GA 30345 Diana Hawkins (404)679-7293 Fax:(404)679-7286

In the Field: Panama City Field Office-ES and Fisheries

612 June Ave

Panama City, FL 32405

Gail Carmody ext. 225 Lorna Patrick ext. 229

(850)769-0552 Fax:(850)763-2177

**Programs:** K-5 Save our Area Resources (Soar) curriculum guide, teach teachers;

endangered species, wetlands, and environmental conservation

**In the Field:** St. Marks NWR

P.O. Box 68

St. Marks FL 32355

Robin Will (850)925-6121 Fax:(850)925-6930

**Programs:** Teacher guide and Field Trips

**In the Field:** Wheeler NWR, Visitor Center

2700 Refuge Headquarters

Decatur, AL 35603

Teresa Adams (256)350-6639 Fax:(256)351-6958

**Programs:** Teacher workshops, school group presentations, exceptional relationship with

surrounding communities

In the Field: Southeast Louisiana Refuges:

Bayou Sauvage, Big Branch Marsh, and Bogue Chitto NWR

1010 Gauge Blvd, Bldg 936

Slidell, LA 70458

Byron Fortier (Supv. Park Ranger) (985) 646-7549 Fax:(504)646-7588

Doug Hunt (Park Ranger) (985) 882-3881 Fax: (985) 882-6138 Diane Barth (Park Ranger) (985) 646-7555 Fax: (985) 646-7588 Rhonda Dennis (Park Ranger) (985) 646-7543 Fax: (985) 646-7588

**Programs:** On-site curriculum-based EE activities at Bayou Sauvage and Big Branch Marsh,

inc. canoeing programs for older students; classroom visits; summer nature camps

(3)

**In the Field:** Ding Darling NWR

1 Wildlife Dr. Sanibel, FL 33957

Kevin Godsea (941)472-1100 x237 Fax:(813)472-4061

**Programs:** Has an agreement with Lee County School. This school system

has the largest EE program in country. They have their own EE teachers but use

the Refuge extensively for their outdoor classroom

**In the Field:** Sewee Visitor/Environmental Education Center

5821 Highway 17N Awendaw, SC 29429

Larry Davis (843)928-3368 Fax:(843)928-3828

**Programs:** Two EE classrooms, developed curriculum through a

partnership with local school district - Earth Stewards-5th graders

**In the Field:** Alligator River NWR

P.O. Box 1969 Manteo, NC 27954

Bonnie Strawser (252)473-1131 Fax: (252)473-1668

**Programs:** EE activities, Red Wolf Curriculum, Wings Over Water festival

**In the Field:** Okefenokee NWR

Route 2, Box 3330 Folkston, GA 31537

Jim Burkhart(912)496-7366 Fax: (912)496-3332

**Programs:** EE activities, Visitor Center, Exhibits

## **Region 5**-Environmental Education Coordinator

USFWS, Refuges & Wildlife 3100 Desert Road Suffolk, VA 23434 Julie Rowand (757) 986-3705

**In the Field:** Chesapeake Bay Field Office

Rich Mason (410)573-4500

**Programs:** Schoolyard Habitat Program: Technical assistance and printed resources on

restoring habitat on schoolyards.

In the Field: John Heinz NWR at Tinicum

8601 Lindbergh Blvd Philadelphia, PA 19153

(610) 521-0662 Fax: (610) 521-0611

**Programs:** Extensive EE program. Educator workshops, lending library for educators, site-

specific activity guides for field trips, Nature of Learning refuge participant. The Cusano Environmental Education Center includes exhibits and resources for

teachers and field trips.

**In the Field:** Missisquoi NWR

371 North River Street Swanton, VT 05488

Eileen Nunez (802) 868-4781 Fax: (802) 868-2379

**Programs:** Missisquoi National Wildlife Refuge is the state receiving site for the Federal

Junior Duck Stamp Conservation and Design Contest. Visit

http://duckstamps.fws.gov/junior/junior.htm to learn more. Field trips for school groups, adult seminars and educational programs, demonstrations, and special

events are scheduled throughout the year.

In the Field: Potomac River NWR Complex, Mason Neck NWR, Occoquan Bay NWR

14344 Jefferson-Davis Highway

Woodbridge, VA 22191

Yvonne Schultz & Martin McClevey (703) 490-4979 Fax: (703) 490-5631

**Programs:** VA State Coordinator Junior Federal Duck Stamp Competition, partnerships with

local school districts (Prince William & Fairfax Counties), cleanup & special

projects partnership with Exxon Mobil Corporate headquarters.

**Potomac River NWR** Complex provides Environmental Education opportunities for public and private schools, home schoolers and civic groups to learn about our natural resources.

**Mason Neck NWR:** A partnership with Thomas Jefferson High School and the Fairfax County School District provide opportunities for local schools to conduct research and general EE studies in closed portions of the refuge. An Environmental Education pavilion located on the refuge is available for use by school groups (reservations required).

**Occoquan Bay NWR:** The Girl Scout Council of the Nation's Capital is partnering with the refuge to provide junior level work projects as well as Silver and Gold Award level projects. Boy Scout projects are available for community service and Eagle. A bird banding station is in operation at Occoquan Bay NWR from March through May (groups may arrange school trips to visit station). A visitor contact station is staffed on weekends to provide general information and access to video library.

In the Field: Chincoteague NWR

P.O. Box 62

Chincoteague, VA 23336

Alison Penn and Sally Bowden (SSSP Regional Coordinator) (757) 336-6122 Fax: (757) 336-5273

**Programs:** Extensive EE program. Structured educational programs are available for schools,

youth groups, universities, elderhostels, and professional groups. Teacher workshops are also offered throughout the year. The Herbert H. Bateman Educational Center includes exhibits and information about the refuge resources.

Information available on Fish and Wildlife Service's Shorebird Sister Schools

Program.

**In the Field:** Gulf of Maine Coastal Ecosystems Program

4R Fundy Road Falmouth, ME 04105

Lois Winter (207)781-8364 Fax:(207)781-8369

**Programs:** Environmental education as a tool to promote and implement restoration

initiatives in Gulf of Maine Watershed. Target outreach audiences: state

conservation groups, land trusts, town planners, fishing groups, watershed assoc.

and land use decision makers.

**In the Field:** Moosehorn NWR

RR 1, P.O. Box 202, Suite 1 Baring, ME 04694-9703

Vacant (207)454-7161 Fax:(207)454-2550

**Program:** 7<sup>th</sup> and 8<sup>th</sup> grade students lead 4<sup>th</sup> and 5<sup>th</sup> grade students in pre-visit and on-refuge

activities. When in 6<sup>th</sup> grade they do special projects on the refuge to continue

their connection with Moosehorn.

In the Field: Patuxent Research Refuge

National Wildlife Visitor Center 10901 Scarlet Tanager Loop Laurel, MD 20708

Stacie Henry (301) 497-5763 Fax: (301) 497-5765

**Programs:** State-of-the-art exhibits that demonstrate the value of wildlife research, wildlife

conservation tram tours (seasonally), K-12 site specific guides that link to state and national curricula, Project Wild, Project Learning Tree, Ecological Concepts, WOW! Wonders of Wetlands, Conservation on Canvas, MD State Coordinator Junior Federal Duck Stamp Competition, interpretive programs for the general public, special events, outreach and partnerships with local schools, schoolyard

habitat demonstration area, and other hands-on activities.

#### **Region 6-Environmental Education Coordinator**

USFWS, Refuges & Wildlife P.O. Box 25486, Denver Federal Center Denver, CO 80225

Diane (Dee) Emmons (303)236-4392 Fax:(303)236-4792

**Programs:** Responding to a need to develop a coordinated effort for serving the

environmental education needs of the Denver metro area schools, the Scientist in the Schools program was formed in 1986. The "scientists" are staff in the Regional Office that have volunteered to be a part of this program. Scientists either adopt a certain school and work with that school throughout the year to meet their environmental education needs, or they are "floaters" and respond to requests from schools. Materials available to the scientists for doing classroom presentations include: teaching guides, a curriculum library, slides, a groundwater

model, and hands-on wildlife products and skins.

**In the Field:** Ecological Services, Cheyenne WY

Mary Jennings (307)772-2374

**Program:** Developing a wildlife patch for youth groups

In the Field: Rocky Mountain Arsenal NWR

**Building 121** 

Commerce City, CO 80022-2108

Stacy Armitage (303) 289-0931 Fax (303) 289-0863

**Programs:** Rocky Mountain Arsenal National Wildlife Refuge offers all schools

environmental education opportunities in a natural setting. Two types of environmental education programs are offered: teacher-led field trips using our "Home is Habitat" curriculum and staff-led field trips for grades K-12 with

specific curriculum. "Home is Habitat" teacher trainings are offered 2-3 times per

vear for re-certification credit through the Colorado School of Mines. All

environmental education opportunities are free and are correlated to the Colorado Model Content Standards. The *Time Capsule* is a traveling educational kit

available for classroom use containing books, props, maps, photographs and posters. The *Capsule* includes 12 hands-on, interdisciplinary activities that trace the history of the Refuge, from native prairie, to farming, to industry, to National

Wildlife Refuge.

In the Field: Alamosa/Monte Vista Complex, Alamosa, CO

Contact: Kristen Gilbert Phone: (719) 589-4021

**Programs:** A couple of different interagency partnerships are occurring in the San Luis

Valley to create an environmental education network in this area. These

partnerships provide environmental education services to meet these needs in the Valley, in addition to providing an interagency network for sharing knowledge

and resources.

In the Field: Great Plains Nature Center, Wichita, KS

Contact: Lorrie Beck

Phone: (316) 683-5499 x108

**Programs:** This 23,000 square foot facility houses offices, exhibit space, an auditorium, and

one classroom. Located in the heart of Wichita, it is surrounded by a 240-acrenatural City-owned park, allowing for hands-on environmental education activities. It is a cooperative venture between the Service, Kansas Department of Wildlife and Parks, and City of Wichita Park and Recreation Department. It is a suggested field trip site for many schools in the metropolitan area. Staff members participate in the Science Olympiad at the regional, state, and national levels by providing tutors, group leaders, and officials. The nature center is host to one of 10 state-wide ECO-Meets each year, with staff working with area high school students as they compete in various tests and quizzes dealing with general wildlife. Continuing education and re-certification classes through the local universities are offered by center staff. Scout, youth, and family natural history

programs are offered throughout the year.

In the Field: Quivira National Wildlife Refuge, Stafford, KS

Contact: Cindy Terry, Outdoor Recreation Planner

Phone: (316) 486-2393

**Programs:** Refuge staff provide one day seminars for educators and others. An educator's

guide, compiled by Refuge staff, is made available to participants. Educational field trips are available on request, and include activities at the Visitor Center and

a field trip guide.

**In the Field:** Kirwin National Wildlife Refuge, Kirwin, KS

Phone: (785) 543-6673

**Programs:** In 1996, a program on beginning bird watching led to the establishment of a local

bird watching club. Evening programs, addressing a variety of topics, are held the

third Thursday evening of each month. An annual Eagle Day presentation

showcases a live, rehabilitated bald eagle. <u>Hooked on Fishing, Not on Drugs</u> kids fishing day is presented with assistance from the Kansas Department of Wildlife & Parks. Teacher's open house showcase the programs that are available at the Refuge and/or for the classroom. Refuge personnel annually conduct various tour and classroom presentations for school groups, senior citizens and scout groups. Refuge staff are involved with the local Boy Scout camp to provide programs or

help with badge requirements.

**In the Field:** Benton Lake NWR

922 Bootlegger Trail

Great Falls, MT 59404-6133

Dave Gillund (406) 727-7400 Fax (406) 727-7432

**Programs:** 

Required environmental education programs occur at the Refuge for Great Falls School District children in grades 3 and 7. In 3<sup>rd</sup> grade, they learn about wetland ecosystems. They return in 7<sup>th</sup> grade to learn about birds. The Refuge staff also host education classes with Montana State University - Northern. Field trips to the Refuge provide "real life" experience on the topics of wetland ecology, environmental awareness, and partnerships for conservation of natural resources.

**In the Field:** Bowdoin National Wildlife Refuge, Malta, MT

Kathy Tribby (406) 654-2863

**Programs:** Every other year, the Refuge sponsors a teacher workshop that focuses on

techniques used in monitoring and managing wildlife. It encourages teachers to use the Refuge and natural areas as teaching tools for their students. Teachers get hands on experience with bird banding, GPS units, and rocket nets. Refuge staff also participate in an annual event, Enrichment Days. This program is made available for all grade school children, approximately 600 students, in Phillips County. Various agencies, such as BLM and NRCS, local businesses, and area farmers also participate in the program. Themes and locations for the event vary

from year to year.

In the Field: Lee Metcalf National Wildlife Refuge, Stevensville, MT

Bob Danley (406) 777-5552

**Programs**: An old barn has been converted into a learning facility for teachers and children.

Refuge staff conduct annual teacher training courses to help teachers understand the environment and to learn to use the Refuge with their students. Many students return to the Refuge each year for hands-on learning conducted by the teachers themselves or by the Refuge staff. Refuge staff also conduct the Junior Duck

Stamp Contest for Montana, which combines art and wildlife education

**In the Field:** National Bison Range, Moiese, MT

Pat Jamieson (406) 644-2211

**Programs:** The Range has an extensive environmental education program. An environmental

outdoor classroom activities. Students and teachers may use environmental education study areas for investigation projects. There is an accessible nature trail near Mission Creek and ponds that are excellent for riparian and wetland studies. There is also an accessible trail through the grasslands near the Visitor Center. Equipment, activity packets, and field guides are available for use by teachers on these areas. The Learning Lab contains a skull and skin collection, pressed plant collection, reference books and field guides, field kits, and laboratory equipment such as microscopes, water testing kits, compasses, magnifying lens, secchi disk and thermometers. Refuge staff host 2-3 teacher workshops per year.

education campsite is available to organized groups for the purpose of pursuing

Participants can receive Montana State OPI (Office of Public Instruction) credits for all workshops. University credit is occasionally offered. The workshops emphasize hands-on activities for students K-12. An environmental education resource library contains reference material, student activity lesson plans, videos

and field kits.

**In the Field:** North Platte NWR

115 Railway Street, Suite C109, P.O. Box 1346

Scottsbluff, NE 69361-3190

Brad McKinney (308) 635-7851 Fax (308) 635-7841

**Programs:** Conservation through Art: Enviro Art is a dynamic program that integrates

> science and art curriculum. This non-traditional pairing of subjects crosses cultural, ethnic, and social lines to teach a greater awareness of national resources. The primary focus is on wetlands and waterfowl conservation principles. The program involves teacher training, classroom presentations, and artist/student workshops. It is available for K-12 students. Refuge staff are very involved with

the Earth Stewards program.

**In the Field:** Audubon NWR

RR 1, P.O. Box 16 Coleharbor, ND 58531

Jackie Jacobson (701) 442-5474 Fax (701) 442-5546

**Programs:** 

Refuge staff has developed an educational activity book geared toward mid-level elementary school students. The book features a cartoon character named "Audy Bon Duck". Audy takes the students through crossword puzzles, word searches and many other activities. Fifteen backpacks, stuffed with wetland discovery tools, binoculars, field guides, and nets, are made available for teachers and students to use while on field trips to the Refuge. A teacher guide is currently being developed to use in conjunction with the packs. A computer and wildlife related software are being circulated through area 6<sup>th</sup> grade classrooms. Students use the computer/software in their free time and some teachers are beginning to incorporate the software programs into their lessons. The Refuge staff work with many Ducks Unlimited Chapters, sportsman's clubs, and local businesses to sponsor Greenwings Day -- an afternoon of educational programs for youth to learn about waterfowl and hunting. A nest box workshop is held each fall to celebrate National Wildlife Refuge Week. Scouts, 4-H groups, and individuals make boxes and learn about placing and maintaining the boxes in suitable habitats. Other Refuge opportunities include barge tours to nesting islands on Lake Audubon during the waterfowl nesting season, bird watching classes,

**In the Field:** North Dakota Ecological Services Division

1500 E. Capital Ave. Bismarck, ND 58501

Karen Kreil (701) 250-4401 Fax: (701) 250-4400

The Ecological Services staff coordinates the loan of four education trunks for **Programs:** 

University of Minnesota Raptor Center Programs, and a home page.

schools throughout North Dakota. Trunk topics include wetlands, neotropical migrants, prairies, and endangered species. The Bismarck staff developed the wetland, prairie, and endangered species trunks. A full-color poster was developed to accompany the endangered species trunk. The trunks contain a teacher's guide, models, activities, and games that are built around a two-week

long teaching unit.

In the Field: Des Lacs NWR

P.O. Box 578

Kenmare, ND 58746-0578

Dan Severson: (701) 385-4046 ext.24 Fax: (701)385-3214

Responding to a need to help the public understand the value of fire management, **Programs:** 

an Education Guide to Great Plains Fire Ecology has been developed by Refuge

staff and a private contractor. Written for students in the 7<sup>th</sup> -12<sup>th</sup> grades, this Refuge-specific guide helps students learn about the historic role of fire on the prairies and the role of prescribed fire today. While the guide directs users to certain locations at the Refuge for their studies, the information is general enough that the guide can be adapted for use at other Refuges. <u>Eco-Education Day</u>, an annual program for 6<sup>th</sup> graders, explores wetland and wildlife values through interactive and hands-on demonstrations.

In the Field: Garrison Dam NFH, Riverdale, ND

Contact: Rob Holm (701) 654-7451

**In the Field:** J. Clark Salyer NWR

P.O. Box 66

Upham, ND 58789

Gary Erickson (701) 768-2548 Fax: (701) 768-2834

**Program:** Refuge staff offer a unique tour of a canoe, scenic, or grassland trail through a

World Wide Web Homepage. Mortimer the Muskrat leads groups on a canoe tour that provides a general overview of the Refuge, while the scenic and grassland trails offer a look at other Refuge habitats and associated wildlife. Through this web site, the trails have been visited by folks from across the U.S. and around the world. In October and November 1996, the homepage was accessed over 1840 times, including 13 "visits" from foreign countries. That is more visitors than the

Refuge actually receives in several months combined.

http://jclarksalyer.fws.gov

In the Field: Long Lake NWR, Moffit, ND

Contact: Wendy Wollmuth (701) 387-4397

In the Field: Sullys Hill National Game Preserve (Devils Lake WMD), Devils Lake, ND

Contact: Joe Maxwell (701) 766-4272

**Programs:** Preserve staff have developed a Regional Conservation Learning Center which

includes a visitor center with bookstore and displays, two classrooms, an

amphitheater, nature and cross country skiing trails, an auto route, overlooks, and various interpretive signs. The Refuge hosts various conservation-orientated workshops and programming for families, classes for teachers, and a host of activities for youth. Youth activities include outdoor studies; classroom learning curriculum; guided tours and programs; teacher led programs; and day camps for 4-H, scouts, and school groups. Curriculum specific to Sullys Hill Preserve was developed by a cooperative education student and combines lessons on Native American heritage and wildlife. Local school students have raised money for educational supplies for the classroom through the Kids for Sullys Hill program.

In the Field: Tewaukon NWR, Cayuge, ND

Kristine Askerooth (701) 724-3598

In the Field: Valley City NWR (Arrowwood NWR Complex), Valley City, ND

Lynda Knutsen (701) 845-3466

In the Field: D.C. Booth Historic NFH, Spearfish, SD

Steve Brimm (605)642-7730

In the Field: Gavins Point NFH, Yangton, SD

Herb Bollig (605)665-3352

In the Field: Huron Wetland Management District, Huron, SD

Karrie Schmidt (605)352-5894

**Programs**: Educators in the Workplace is designed for teachers to better understand various

job requirements of local Service employees. These workshops will allow curricula on careers to be developed for students as they prepare for their future career decisions. A job shadowing program, set up by the local career learning center, allows 9<sup>th</sup> graders to shadow Refuge staff for about 2-3 hours on one day a year. This program allows the staff a chance to talk about the many and varied opportunities with the Service -- from managers, to biologists, to fire control officers, to maintenance, to law enforcement, to fisheries, to clerks and bookkeepers, to archeologists and hydrologists. An annual Water Festival, cosponsored by the Refuge and the local Conservation District, is designed for 4<sup>th</sup> graders from surrounding communities. The program uses hands-on examples to show the value of wetlands through flood prevention and control, and filtration

buffers.

In the Field: Madison Wetland Management District, Madison, SD

Tom Tornow (605)256-2974

**Programs:** Project O.W.L. (Outdoor Wildlife Laboratory) is a mobile outdoor classroom that

is available for schools, local water festivals, and conservation groups within the WMD. It includes spotting scopes, binoculars, owl pellet kits, water testing kits, and microscopes. Hooked on Fishing, Not on Drugs, in partnership with South Dakota State University Cooperative Extension Service and the South Dakota Game, Fish and Parks Department, combines environmental awareness, visual arts, sportsmanship, and fun for young fishers between the ages of 8 and 19. Project WILD teacher workshops are offered to area schools and YMCA's where participants learn how to incorporate environmental education into their curriculum. Wetland, prairie, and furs and skulls trunks focus on wetlands and their importance in the landscape, native prairies and their inhabitants, and handson fur and skull samples. These educational materials are available for loan. The trunks include teacher's guides, activities, puppets, board games, storyboards, and

reference materials.

**In the Field:** Sand Lake NWR, Columbia, SD

Beth Ullenburg (605)885-6320

In the Field: Waubay NWR, Waubay, SD

Laura Hubers or Connie Mueller (605)947-4521

**In the Field:** Bear River Migratory Bird Refuge, Brigham City, UT

Betsy Beneke (435) 723-5887

**Programs:** Refuge staff encourages young people (grades k-8) to become more interested in

migratory birds through a Bird Banner contest. The contest is pitched as a way for the young people to teach the entire community about birds. The banners are made of Tyvek and permanent ink markers and are hung from the light posts on Main Street. An after- school club, Young Friends of the Bear River Refuge, meet regularly and work on a variety of projects. They recently made a film

about the refuge that won the State's "innovation award". Linking Communities, Wetlands and Migratory Birds is a program sponsored by Wetlands International and funded by a NAFTA grant. The project connects schools at three sites (Chaplin Lakes, Saskatechwan; Great Salt Lake, Utah; and Marismas Nacionales, Mexico) which share the same populations of shorebirds at different times of the year. The students will exchange information about their homes and schools and about the habits of the American avocet while it is at their site. Bats Eat Mosquitoes allow 7<sup>th</sup> grade students to explore issues and possible solutions to mosquito abatement issues. The students also build bat houses for the mosquito abatement district to distribute. Frog surveys are conducted by 7<sup>th</sup> graders to survey frogs on the Refuge using the national protocol designed by Patuxent Wildlife Research Center. The students learn about frog biology, environmental contaminants, and sampling techniques. Refuge biologists explain swan management and conservation issues surrounding trumpeter swan recovery and tundra swan hunting. Teacher-led programs on swans prepare students for a visit to the Refuge. How are Birds Different? is a slide program that explores different adaptations of birds, with the emphasis on feet and beaks. Wetland education trunks contain field trip supplies such as waders, dip nets, water sampling equipment, field guides, binoculars and other sampling equipment. A teacher's guide and an activity guide provide both class and field exercises.

In the Field: Ouray National Wildlife Refuge, Vernal, UT

(435) 545-2522

**Programs**: An annual spring Open House includes numerous hands-on activity stations along

the auto tour route. Topics include wetlands, migratory birds, endangered fish, wetland insects, habitats, and the National Wildlife Refuge system. This is an interagency effort. The <u>PAWS-ON</u> program introduces all school students (K-12) to careers in agriculture and natural resources. Refuge staff demonstrates Service

careers and teach about wildlife biology and management.

In the Field: Jackson National Fish Hatchery, Jackson, WY

Kerry Grande (307) 733-2510

**Programs:** In partnership with five different organizations, the Hatchery staff sponsor a

National Fishing Day celebration using the <u>Pathways to Fishing</u> program. Seven learning stations teach ethics, gear and tackle, fish handling and releasing or cleaning, aquatic invertebrates, knot tying, water safety, and locating fish. Staff are constructing a multi-use pond which will be primarily used for fishing and wildlife viewing. An accessible boardwalk, fishing platforms, fish and wildlife viewing areas, and an outdoor classroom will be constructed around the pond.

Originally intended for the local nursing home residents and the

mentally/physically disabled, the pond will be open to the general public during hatchery hours on a permit basis. Fishing events, celebrations, and outdoor

classes will be held on site.

In the Field: National Elk Refuge, Jackson, WY

Jim Griffin (307) 733-9212, ext. 227

**Programs:** Winter sleigh rides take visitors up close and personal to the elk wintering in the

Jackson Hole valley. Interpreters on the sleigh rides educate visitors about the Greater Yellowstone Ecosystem and the elk. Environmental education programs are presented at the schools, or children can go to the "outdoor classroom" portion of the Refuge set aside for this purpose. Teachers are provided with an Elk and

Elk Refuge Study Guide to help them with their teaching.

In the Field: Fisheries- Tribal Technical Assistance Program

P.0.Box 61

Lewistown, MT 59457

Jane Roybal (406) 538-2391 Fax (406) 538-8359

**Programs:** Developing education boxes, tribal partners program for prairie conservation, and

brochures and educational materials.

In the Field: Upper Souris NWR, Foxholm, ND

Duane Anderson (701)-468-5467

**Programs:** The refuge works with several organizations to organize the Mouse River Loop

Envirothon in North Dakota. This regional envirothon has been used as a model for the development of other regional envirothon events within the state. The main objective is to combine in-class curriculum with hands-on field experience that deals with environmental issues concerning the management of natural resources. This is accomplished by working with numerous partners and the national Canon Envirothon format to create a positive event for students and

teachers in a multi-county area.

The event is open to students between the ages of 15-18 years old and science and vocational teachers at the high school level. The event generally reaches approximately 100 students and 20 teachers with this educational event as well as partners and volunteers.

The national Envirothon program, is a competitive, problem-solving event which helps students learn about the natural resources of their world. It also assists students in making wise decisions about the issues affecting natural resources and the environment. Teachers prepare the students prior to the event and assist the students during the event. The project partners contact schools to gain acceptance and participation of teachers and students, to design the 1-day event, and provide materials to students and teachers to increase their knowledge and prepare for the event.

# **Region 7**-Environmental Education Coordinator

USFWS, Division of External Affairs 1011 E. Tudor Road Anchorage, AK 99503 Kevin Painter (907) 786-7653

**Programs**: "Learn About Seabirds," "Arctic Nesting Shorebirds," "Wetlands and Wildlife,"

and "Role of Fire in Alaska" curricula, curriculum-kits, teacher workshops.

Alaska Waterfowl Calendar

Dave Patterson, Refuges, Scout Coordinator (907)786-3389

In the Field: Fairbanks Fisheries Resources Office

1012 12th Ave

P.O. Box 17 Room 222 Fairbanks, AK 99701

Laurel Devaney (907)456-0558 Fax:(907)456-0454

**Programs:** Fisheries/ aquatic ed. kits, educator guides, science camps, teacher

workshops, Adopt-A-Steam. Great resource for Fisheries education

**In the Field:** Tetlin NWR

P.O. Box 779 Tok, AK 99780

Mary Timm (907)883-5312 Fax:(907)553-5747

**Programs:** Educator program, summer camps

In the Field: Kenai NWR

P.O. Box 2139

Soldotna, AK 99669-2139

Nicole Johnson (907)262-7021 Fax:(907)262-3599

**Programs:** The environmental education program is filled with a variety of tools including

field trips led by refuge staff and SCA volunteers, interpretive programs, kits and supplies available for teacher checkout, integrated environmental education activities with Youth Conservation Corp, a junior ranger program, a junior explorer program, and an outdoor education center that is available by a special

use permit.

**In the Field:** Kodiak NWR

1390 Buskin River Rd. Kodiak, AK 99615

Cheryl Nugent (907)487-2600 Fax:(907)487-2144

**Programs:** One week salmon summer camps for 5-6, 7-8 and 11-12 yr olds; classrooms

presentations, field trips, whale feast in May.

**In the Field:** Alaska Maritime NWR

2355 Kackemak Bay Drive, Suite 101

Homer, AK 99603

Poppy Benson (907)226-1227 Fax:(907)235-7783

**Programs:** Native Stewardship summer camps, field trips using shorebird and seabird

curricula, Kachemak Bay Shorebird Festival, Shorebird Sister Schools.

**In the Field:** Koyukuk/Nowitna NWR

P.O. Box 287 Galena, AK 99741

Karin Lehmkuhl (907) 656-1231 Fax (907) 656-1708

**Programs:** Education programs in village schools, community outreach special events,

summer day-camps, teaching-kits and resource library materials available to loan

(in Alaska only).

**In the Field:** Yukon Delta NWR

PO Box 346

Bethel, Alaska, 99559

Donna L. Hanley (907) 543-1015 Fax: (907) 543-4413

**Programs:** Refuge related wildlife curricula covering moose, salmon, migratory birds,

shorebirds, lead shot poisoning and tundra protection. Classroom fish, bird and tundra kits, Refuge Information Technician program, teacher workshops, FWS

Teacher Training Institute, guided bird and plant walks, annual International Migratory Bird Day celebrations, visitor center and museum.

In the Field: Arctic NWR

101 12th Ave., Room 236, Box 20

Fairbanks, AK 99701

Cathy Curby (907)456-0500 Fax:(907)456-0428

**Programs:** Classroom and web-based environmental education programs

# 8. Electronic Field Trips Delivered Via Satellite or Webcast Please Note: Interactive only on dates specified.

#### http://www.imbd.org

International Migratory Bird Day Broadcast.....April 23, 2004....1:00-2:30 PM EST

#### http://www.efieldtrips.org/Shorebirds/index.htm

Shorebirds on the Move....Come Migrate With Us!......April 28-30, 2003 Your students can e-mail questions directly to the experts at the U.S. Fish and Wildlife Service! The experts will be accepting questions via e-mail April 28-30, 2003. Please allow 1-2 days for a reply.

#### http://www.wildthingsFWS.org

Wild Things 2002: Habitat is Home Sweet Home.....October 2, 2003....1:00-2:30 PM EST

#### http://www.tpwd.state.tx.us/expltx/eft/

Texas Parks and Wildlife Department.....Fall 2003 (To be announced)

# 9. Electronic Field Trips for Environmental Education and Distance Learning Resources

#### http://www.windowsintowonderland.org/

Yellowstone National Park: NPS

#### http://shorebirds.pwnet.org

Winging Northward: A Shorebirds Journey

#### http://www.nationalgeographic.com/geographyaction/

National Geographic: Geography Action! 2003

Habitats: Home Sweet Home

#### http://www.sd5.k12.mt.us/glaciereft/

Glacier National Park

#### http://www.blm.gov/education/

Environmental Education Resources: BLM

#### http://www.greentreks.org

GreenWorks.tv: Environmental Fund for Pennsylvania

#### http://www.learner.org/jnorth

Journey North: Whooping Crane and other Migrations

#### http://video.fws.gov/

U. S. Fish and Wildlife Service video segments

http://commtechlab.msu.edu/sites/letsnet/frames/bigideas/b1/index.html

Electronic Field Trips: Theoretical Rationale

http://www.apple.com/creative/stories/webcasting/

Live Webcasting: Apple Corporation

http://www.nps.gov/webrangers

National Park Service: Web Rangers

http://www.efieldtrips.org/

Electronic field trips and virtual visits sponsored by NPS, FWS, BLM, and others.