Appendix D

Education Resources





# **National Environmental Education Resources**

- <u>EnviroNet</u> is a super web site for students, teachers, scientists, environmental educators and others who use telecommunications to enhance environmental science education.
- <u>EE-Link</u> is possibly the best single guide to all kinds of environmental education resources on the web. It is maintained by the National Consortium for Environmental Education and Training at the <u>University of Michigan School of Natural Resources</u> and Environment with funding from the <u>U.S. Environmental Protection Agency</u>.
- <u>The Amazing Environmental Organization Web Directory</u> will lead you to myriad sources of information about all facets of the natural environment. Includes a link to <u>K-12</u>, college, and university environmental education web sites.
- The Education Resource Information Clearinghouse (ERIC) is an outstanding guide to K-12 teaching resources in all disciplines, a service of the U.S. Department of Education, National Library of Education.
- <u>Eisenhower National Clearinghouse</u>, for Math and Science has lots of resources and materials for teachers of math and science. It also includes numerous links with environmental education programs within the "earth science" section.
- The <u>U.S. Environmental Protection Agency</u> has a wealth of information for high school students that describes environmental careers, work experience programs, and other environmental career resources in and outside the EPA.
- The <u>Global Learning and Observations to Benefit the Environment (GLOBE)</u> project is a worldwide network of students, teachers, and scientists working together to study and understand the global environment.
- The <u>Global Rivers Environmental Education Network (GREEN)</u> is an innovative, action-oriented global network of people in schools and communities who study their watersheds and share data via the Internet.
- Marine science conducted in the field is brought by satellite into the classroom by NASA's <u>JASON</u> project, coordinated by world renowned oceanographer Dr. Robert Ballard, discoverer of the wreck of the SS Titanic.
- The <u>Madison Area JASON 97</u> site at Wisconsin Sea Grant features Great Lakes migratory birds, including an interactive bird quiz, guides to teacher resources, and student home pages developed as part of the JASON VIII Project curriculum.

ANROE: Environmental Education Resources

- The <u>U.S. Fish and Wildlife Service</u> provides a variety of information about its programs and activities. One section of particular interest to environmental educators is its web site on endangered species.
- <u>Sea World</u> offers free online classroom activities and other information about marine mammals.
- The Smithsonian Institution features an exhibit called <u>Ocean Planet</u> which is aimed at helping people understand environmental issues affecting the health of the world's oceans.
- <u>WhaleNet</u> is a web site that fosters excitement about learning and the environment by providing all kinds of cool information and classroom resources about whales and marine research.
- The <u>Alaska-British Columbia Whale Foundation</u> is a nonprofit organization based at Simon Fraser University in British Columbia, Canada, dedicated to research, education, and conservation of humpback whales and other marine life and habitats.
- New and out-of-print outdoor books are featured at <u>the Outdoor Bookstore Online</u> <u>Catalog</u>.
- <u>Environmental education resources</u> and <u>information on marine mammals</u> are provided by the University of Oregon.
- The <u>Columbia Education Center</u> in Portland, Oregon, runs a number of environmental education teacher training programs in which Alaska teachers participate.
- The Annenburgh/CPB Math and Science Project: <u>Journey North</u> This site provides constantly updated data on migration patterns of a variety of critters including robins, bald eagles, monarch butterfly, and humpback whales.
- <u>Environmental Education Sources</u> offers free environmental posters and student activities that focus on behavior, adaptations, and life patterns of fish, mammals, reptiles, amphibians, and insects.

# **Alaska Environmental Education Resources**

- The <u>Science and Math Consortium for Northwest Schools</u> is a great gateway to many science and math resources, activities, and projects created for and by K-12 teachers and students in Alaska.
- The <u>Alaska Department of Fish and Game</u> provides a lot of information on the web about Alaska's marine, aquatic, and terrestrial resources. They offer a photo gallery with all kinds of neat <u>pictures of Alaska animals</u>. Part of the ADFG <u>Wildlife Notebook</u> <u>Series</u> is online, and they also have an excellent presentation of photographs and detailed information about commercially important fish and shellfish.
- The <u>State of Alaska</u> offers web access to all of its agencies and many of its departments, including <u>Education</u>, <u>Fish and Game</u>, <u>Environmental Conservation</u>, and <u>Natural Resources</u>.

Wildlife Conservation

# **Project WILD**

a K-12 conservation education program focusing on wildlife, fostering responsible action toward natural resources



Project WILD and Project WILD Aquatic are national award-winning conservation and environmental education programs emphasizing wildlife, designed for educators of kindergarten through twelfth grade, and sponsored by the Alaska Department of Fish and Game.

**Interdisciplinary:** Project WILD activities are interdisciplinary and supplementary activities to enrich subjects, concepts and skills already taught in classrooms, summer camps, scouting, and at home.

**Teacher Friendly:** Activity guides were designed and tested by teachers. Each activity includes objectives, methods, background information, step-by-step directions, discussion ideas and potential extensions for further learning. Graduate credit is available through the University of Alaska.

**Free to Educators:** Workshops are free to educators. Each participant will receive the *Project WILD Activity Guide* and the *Project WILD Aquatic Guide*, including over 150 activities. Workshop materials and additional handouts are provided by ADF&G.

**Great for Schools & Communities:** School Districts pay only half of the travel costs for a WILD workshop. Six- to 8-hour workshops are conducted during inservice days, in the evening, or on a Saturday. Community members are strongly encouraged to participate and present local knowledge relating to wildlife.

**Project WILD Activity Guides:** Presented in lesson-plan format, activity guides include objectives, methods of teaching, background information, available references, materials lists, and ways to evaluate learning.

The guides help incorporate wildlife-related concepts into classroom curriculum. Each activity is designed to teach one or more of the following concepts:

- awareness and appreciation of wildlife,
- human values and the wildlife resource,



http://www.state.ak.us/local/akpages/FISH.GAME/wildlife/geninfo/educate/pw\_home.htn5/8/97

- habitat and ecological systems,
- wildlife conservation,
- cultural and social interaction with wildlife,
- environmental issues and trends,
- alternatives and consequences,
- ecological systems, and
- responsible human actions.

Each guide (also available in Spanish, *Proecto de Vida Silvestre*) includes grade level, subject areas, topic and skill development, as well as a glossary of terms.

Alaska workshops have been held in St. Mary's, Red Devil, Fairbanks, Copper Center, Galena, Koyukuk, Juneau, Anchorage, Soldotna, Delta Junction, St. George, Homer, Valdez, Kenai, Sitka, Kodiak and other communities across the state.

## Sample Workshops:

## Week-long, graduate-credit Project WILD program

In February, the teachers of the St. George School participated in a 15-hour Project WILD workshop. The workshop included:

- Project WILD and Project WILD Aquatic
- Alaska Wildlife Curriculum
  - Alaska's Tundra and Wildlife
  - Alaska's Ecology
  - Wildlife for the Future
- US Fish and Wildlife Service's Learn About Seabirds Curriculum

Teachers and other invited community members participated in activities which focused on the St. George ecosystem and related wildlife issues. Classroom activities with students were conducted throughout the week. Activities were co-taught by educational specialists from the Alaska Department of Fish and Game, US Fish and Wildlife Service, and classroom teachers. Teachers and students participated in field trips to view and identify wintering birds.

To complete the graduate course, teachers planned and led activities from each program's activity guides with their students in the weeks following the workshop. The graduate level course (ED593) was offered through the University of Alaska, Aleutians/Pribilof Center (fnjc@aurora.alaska.edu).

School Districts hosting these programs are asked to provide housing and assist with travel costs for the facilitator.

For more information contact:

- US Fish & Wildlife Service
  - Environmental Education Programs
  - Shorebird Sister Schools Program
- Alaska Wildlife Curriculum



http://www.state.ak.us/local/akpages/FISH.GAME/wildlife/geninfo/educate/pw\_home.htn5/8/97

## EDUCATIONAL KITS

For information about Educational Kits, contact Educational Specialist, Heather Johnson at (907) 786-3367 or heather\_johnson@email.fws.gov

*Educators,* to check out an Educational Kit, contact Nancy Tileston, Librarian, (907) 786-3358

Grade level codes: P=Primary, UE=Upper Elementary, JH= Junior High or Middle School, HS= High School

BIRDS AND WETLANDS

Alaska Loon Kit - Includes slides, cassette tape, posters, books, loon costume, photos, and supplies for activities. GRADE LEVEL P, UE

**Seabirds -** Includes curriculum with activitities, slides, videos, books, posters, puppets, bird wings and skulls. This kit compliments the "Learn About Seabirds" curriculum. GRADE LEVEL P, UE

**Songbird Blues -** Includes curriculum notebooks, books, magazines, student research kits, videos, felt storyboard, posters, cassette tapes, and puppets. GRADE LEVEL P, UE, JH

To borrow this kit, contact Brad Andres, U.S. Fish & Wildlife Service, Migratory Bird Management, (907) 786-3444 or FAX (907) 786-3641

Waterfowl/Wetlands Includes Wetlands and Wildlife curriculum, posters, waterfowl ID cards, rubber stamps, children's books about waterfowl. GRADE LEVEL P, UE. JH, HS

LAND MAMMALS

Alaska Mammals Includes rubber stamps, track field cards, whale mobile, mammal models, poster, puppets, fur cards, quills, and stickers. Publications about moose, caribou, bears and wolves. Several slide shows on mammal topics are also available separately. GRADE LEVEL P, UE

**Wolf Kit** Includes puppet, latex tracks, mask, materials for activities, videos, cassette tape, posters, wolf skull. GRADE LEVEL P, UE

MARINE MAMMALS

Alaska Marine Mammals Includes paddle puppets, publications, and other resource materials about whales, seals, walrus, sea otters and polar bears. GRADE LEVEL P, UE

ENDANGERED SPECIES

**Cargo for Conservation** Includes numerous actual products made from endangered species from around the world that were confiscated by law enforcement officials. GRADE LEVEL UE, JH, HS

THE SEA

**Touch the Sea** Includes posters, whale song tape, specimens, teachers guide, worksheets. GRADE LEVEL UE, JH

EARTH SCIENCES

Alaska's Resources: Minerals Includes books, posters, filmstrips, videos, and rock samples. GRADE LEVEL UE, JH

FIRE

**Fire in Alaska** Includes books, videos, photographs, activity cards, plant specimens, spruce cones, blindfolds, magnifying glasses, transect stakes, clothespins, the fire slide show and tree cookies, Also supplementary work sheets snd teaching ideas. GRADE LEVEL UE. JH, HS

USFWS Alaska Home Page

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Special Programs

### Save Our Migratory Birds Goose Calendar Contest Junior Duck Stamp Contest Boy / Girl Scouts & the U.S. Fish & Wildlife Service

#### Shorebirds Sister School Program

Students, teachers, and parents track Arctic nesting shorebirds to their nesting grounds in Alaska.

Exhibits and Displays

Displays and exhibits about Alaskan culture, birds, conservation, endangered species, fire, fishing, wetlands, and U.S. Fish & Wildlife Service

#### Educational Kits

Kits to help educate about birds, animals, wetlands and other elements of the ecosystem.

**Educational Slide Shows** 

Slide shows about Alaska, birds, mammals, fire, wetlands, the ocean and other elements of the ecosystem.

Educational Videos

A large selection that covers most of Alaska, British Columbia and the Pacific Northwest, includes wetlands, birds, animals, estuaries, fisheries, fire, and oil spills.

USFWS Alaska Home Page

USFWS National Home Page

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