## WILDLIFE CURRICULUM

#### **Key Points**

- 1W Identify common wildlife species and wildlife signs.
- 2W Identify basic wildlife survival needs.
- 3W Describe specific adaptations of wildlife to their environment and their role in the ecosystem.
- 4 W Describe predator/prey relationships and identify examples.
- 5W Describe food chains and food webs and cite examples.
- 6W Describe factors that limit or enhance population growth.
- 7W Evaluate a given habitat and its suitability for a designated species when given a description of its habitat needs.
- 8W Describe ways a habitat can be improved for specific species through knowledge of its specific requirements.
- 9W Discuss the concept of carrying capacity and limiting factors.
- 10W Discuss various ways the public and wildlife managers can help in the protection, conservation, management, and enhancement of wildlife populations.
- 11W Describe the potential impact of the introduction of non-native species.
- 12W Describe major factors affecting threatened and endangered species and methods used to improve the populations of these species.

## Suggested Core Activities

- After using local identification guides to identify the most common wildlife in your area, survey a local park, forest or school grounds for those types.
   For variation, repeat the survey at morning, midday, and evening and compare the differences. (1W)
- Using the Animal Tracks website, students should collect, identify and preserve wildlife tracks for future study. (1W)
- After downloading the PDF file "Basic Wildlife Survival Needs" from Texas Parks and Wildlife, students should present research on the basic requirements for wildlife survival, and give examples of why habitat loss is the main problem facing wildlife. (2W)
- Students should create a powerpoint presentation showing specific adaptations of wildlife to their habitat, and their role in the ecosystem. (3W)
- After downloading the electronic field trip" To Eat or Be Eaten", students should outline the predator/prey relationships between the Rocky Mountain Elk and the wildlife living in the Yellowstone area. (4W)
- Students should make a map of their local area forest or park, including wildlife inventories, tracks, habitat, food sources, and specific adaptations. (4F, 10F)
- Students should create a display illustrating how the interdependence of the population within a food chain maintains a balance of plant and animal

- populations within a community. (5W)
- After reading "Wildlife Populations" from the University of Minnesota, students should outline the factors that limit or enhance wildlife population growth. (6W)
- Students should create a cottontail rabbit management plan for farmers to encourage cottontail rabbit populations along with their normal farm operations. (7W, 8W)
- Students should discuss how territoriality, reproductive stratagies, and dominance heirarcharies enhance a species survival, and how human activities can interfere with carrying capacity. (9W)
- Students should present solutions to the following invasive species, and list steps for the national management plan for these species: Sea Lamprey, Zebra Mussel, Eurasian Milfoil, Purple Loosestrife. (11W)
- Students should name the five categories for endangered species in Canada and list a bird or mammal for each category. (12W)

# Top Resources

- Wildlife identification US Fish and Wildlife Service http://educators.fws.gov/educators.html (1W)
- Identifying and Preserving Wildlife Tracks <a href="http://www.42explore.com/animaltracks.htm">http://www.42explore.com/animaltracks.htm</a> (1W)
- Wildlife identification, endangered species, and invasive species <a href="http://species.fws.gov/">http://species.fws.gov/</a> )1W, 11W, 12W)
- Canada wildlife identification and habitat http://www.hww.ca (1W, 7W, 8W)
- National Wildlife Federation <a href="http://nwf.org/backyardwildlifehabitat/">http://nwf.org/backyardwildlifehabitat/</a> (All)
- Wildlife links for educators US Fish and Wildlife <a href="http://deerflat.fws.gov/linksed.htm">http://deerflat.fws.gov/linksed.htm</a> (All)
- Winter animal adaptations Michigan State University Extension <a href="http://www.dsisd.k12.mi.us/mff/Environment/WinterAnimals.htm">http://www.dsisd.k12.mi.us/mff/Environment/WinterAnimals.htm</a> (3W)
- Animal Adaptations, Boreal Forest Network Canada <a href="http://www.borealnet.org/overview/wildlife.html">http://www.borealnet.org/overview/wildlife.html</a> (3W)
- Wildlife Populations University of Minnesota <u>http://www.extension.umn.edu/distribution/youthdevelopment/DA6340.htm</u>
   [ (4W, 5W, 6W, 8W, 9W, 10W, 11W)

- Predator/Prey Relationships "Eyes of Yellowstone" Yellowstone Park Foundation Sponsored by Canon <a href="http://www.ypf.org/partnerships/corporate.asp">http://www.ypf.org/partnerships/corporate.asp</a> (4W)
- Create a Food Chain Canada Wildlife Act <a href="http://www.vt aide.com/png/foodchains.htm">http://www.vt aide.com/png/foodchains.htm</a> (5W)
- Carrying Capacity National Wildlife Federation <a href="http://enature.com/">http://enature.com/</a> (9W)
- Carrying Capacity World Builders
   <a href="http://curriculum.calstatela.edu/courses/builders/lessons/less/biomes/carryingcap.html">http://curriculum.calstatela.edu/courses/builders/lessons/less/biomes/carryingcap.html</a> (9W)
- Habitat Improvement <u>http://www.in.gov/dnr/fishwild/hunt/open.html</u> (10W)
- Invasive Species USDA <a href="http://www.invasivespecies.gov/">http://www.invasivespecies.gov/</a> (11W)
- Invasive Species US Fish and Wildlife (11W) http://contaminants.fws.gov/Issues/InvasiveSpecies.cfm (12W)
- Species at Risk Canada http://www.speciesatrisk.gc.ca/Q2\_e.cfm (12W)

#### Wildlife Extended Studies

Students should create a display outlining conservation oriented land use planning to preserve bird habitat.

Cornell Lab of Ornithology All About Birds
 <a href="http://www.birds.cornell.edu/programs/AllAboutBirds/">http://www.birds.cornell.edu/programs/AllAboutBirds/</a> (1W, 2W, 3W, 6W, 7W, 8W, 10W)

Students should review wildlife habitat areas of the California Central Valley. Students should describe the following: wildlife populations, land descriptions, human destruction to the habitat, and solutions to the problem. (2W, 5W, 6W, 7W, 8W, 11W, 12W)

Students should examine the impact of the feral pig, an introduced animal, on the native Hawaiian plant and animal species. Research should be used from the following viewpoints: Conservation Environmentalist, Native Hawaiian Hunter, and Animal Rights Activist. Students should create a power point presentation detailing measures which should be taken so all sides are represented.

<a href="http://www.nevada.edu/~karla/">http://www.nevada.edu/~karla/</a> (8W, 10W, 11W, 12W)

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