

Disappearing Wetlands

OBJECTIVES

The student will be able to show on a globe or map types of wetlands found regionally in the U.S. The students will be able to describe and map the yearly migration of one bird species, giving the bird's approximate locations and time of year.

National Geography Standards: 1, 14

Recommended field guides: Roger Tory Peterson, *Peterson First Guide to Birds of North America* and *A Field Guide to Western Birds*. National Geographic *Field Guide to Birds of North America*.

MATERIALS

- Atlas, world map, or globe
- Access to Internet or library
- Map of U.S. (provided)
- Writing and drawing materials including color markers or pencils

BACKGROUND

A wetland is an area that is saturated or covered by water at least part of the year. Common types of wetlands in the United States include swamps, marshes, bogs, and prairie potholes. Wetlands are found along coasts and in inland areas. Wetlands play a vital role in the health of the surrounding ecosystems. About 43% of federally endangered and threatened animals and plants depend on wetlands in some way. Important crops such as rice, mint and cranberries grow in wetlands. Wetlands provide nursery and breeding grounds for fishes, shellfishes, waterfowl and other wildlife. Migrating birds often use wetlands as "rest stops" for food and rest, and to spend the night while traveling long distances.

Unfortunately it's estimated that more than 50% of our native wetlands in the continental United States have been irreversibly altered or destroyed, from an estimated 220 million acres in the 1600s to only about 105 million acres in 1997. Extensive wetland loss results from drainage, pollution, and other human actions as well as natural threats.

ACTION

1. Begin the activity by writing "wetland" on the chalkboard or writing surface. Ask students to define this word. Are wetlands always along a coast? Are wetlands always wet? Are there any wetlands near your school or town? Display pictures from books or an Internet site (resources below) to show students what a wetland looks like.
2. Wetlands are soggy, muddy, and often smell bad. In the past, developers have filled them in and used them for housing or industry. Are wetlands important to ecosystems? Why or why not? When discussing waterfowl, show a field guide of bird migrations and established flyways.
3. Distribute maps of the United States. Write the following birds on the board: sandhill cranes, American tree sparrow, blue-winged teal, Brant goose, Rufus hummingbird, redhead duck, peregrine falcon, Townsend's warbler, bobolink, cliff swallow. Have students work individually or in groups to choose one bird and research how it uses wetlands and what flyway(s) it follows. Ask students to create a hypothesis and devise an experiment to show the outcome of their bird populations if wetlands continue to disappear along these flyways. This activity may be done in student groups or as a class.
4. Have students or student groups report findings by illustrating on the wetland map the migration of their bird from summer to winter and back again. What was their hypothesis and how could they be proved or disproved?

Saving My Wild

What kind of wildlife migrates through or near the students hometown? What habitats does wildlife use? Is it protected (refuge, park) or is the habitat at risk? Students can participate in projects such as the Great Backyard Bird Count from Wild Birds Unlimited or Journey North.

Online Sources

National Audubon Society
www.audubon.org/
National Wildlife Federation
www.nwf.org/ourprograms/

U.S. Fish & Wildlife Service
<http://wetlands.fws.gov/>
United States Environmental Protection Agency
www.epa.gov/owow/wetlands/

United States Map

