



NYSDEC Environmental Education

Wildlife Conservation II

For Students in Grades 3 through 6

A 45-minute program designed to introduce students to some of the reasons that wildlife is vanishing across the globe. Introduce students to current conservation methods used by conservation organizations and they will be encouraged to consider ways that they can help protect and preserve wildlife at home and in their community.

Goal

Students will review the basic needs of all life and how some species, both exotic and local, are affected by human activity. Introduce students to some of the reasons that animals become scarce, and familiarize them with some of the Long Island species that could use our help. Make suggestions as to how the students can be proactive in preserving habitat and species in their own neighborhoods, and how they can help the NYSDEC maintain and improve wildlife habitats and diversity in New York.

NYS Intermediate Level Science Core Curriculum

Standard 1: Scientific Inquiry

Key Idea 1: The central purpose of scientific inquiry is to develop explanations of natural phenomena in a continuing, creative process.

Standard 4: The Living Environment

Key Idea 3: The continuity of life is sustained through reproduction and development.

Key Idea 5: Organisms maintain a dynamic equilibrium that sustains life.

Key Idea 7: Human decisions and activities have had a profound impact on the physical and living environment.

Key Terms

Extinct

Extirpated

Threatened Species

Endangered Species

Species of Concern

Protected Species

Threatened

Poaching

Black Market

Background

As of December 1999, US Fish and Wildlife Service listed 939 plants and animals as endangered, and another 266 listed as threatened. Many of the reasons these animals are disappearing are directly attributable to human activity. The NYSDEC is very concerned with the management of wildlife species for posterity.

Materials

Include examples of animals and products used for medicine, clothing, decoration or trophies. Use some or all of the following.

- pelts or skins from local and exotic species
- finished products made from exotic species
- snake hide
- live box turtle, or shell of box turtle

Procedure

Have students define the word “habitat.” Describe how an animal’s habitat is the area that they use to find all of the food, water, shelter, space to move, and a mate to reproduce.

Ask students to identify **ecosystems** and what sorts of animals live in each particular ecosystem (such as desert, polar, rainforest, backyard, beach, deep sea, etc).

The class will explore what needs are essential for wildlife to survive in the world today. Students will meet an Eastern Box Turtle, a native Long Island species that is protected by New York State and is currently in decline, mainly due to the effects of habitat loss. **Habitat loss** may be the biggest cause of biodiversity loss, and you can use the box turtle to illustrate the broader concept in other places.

Students will also be addressing the issue of household pets. The students will have an interactive discussion about what pets are appropriate to own, why, and how some common outdoor pets may have **negative effects** on local wildlife.

After the discussion, introduce the students to a variety of animal artifacts. Briefly describe each artifact, and ask the students if they can help determine whether the species presented should or should not be collected for this purpose and why. The point is to engender an understanding of why some animal species are disappearing, and encourage a sense of stewardship in the students.

In most cases, the loss of wildlife species and degradation of the habitats that support them can be linked to human activities and development. Unfortunately, many better known distressed animals (e.g. tigers, panda, and rhinoceros) are **exotic species** that live far away and cannot be significantly or immediately helped by individual grade school students. However, you can end the discussion by brainstorming ways individual students can **make a difference** to the distressed **wildlife in our own neighborhoods**.

Students should understand by the close of the lesson that there is wildlife on Long Island that have been affected by human activity and every person can take simple but significant

steps to conserve their local wildlife. Students should identify ways that they themselves can support local wildlife that does not require a lot of money, travel, or even a large amount of exertion.

The following are a series of items that may be brought into the classroom as examples of the reasons that many species become endangered. It is unlikely that all of these items will be used in a single lesson.

- **Ivory –**
 - Uses: decorative pieces, handles of weapons
 - Sources: elephant, walrus, sperm whale, hippopotamus, bear
 - Causes of Decline: over hunting
- **Horn-**
 - Uses: medicines, handles of weapons, trophies
 - Sources: rhinoceros, deer family antlers, other herbivores
 - Causes of Decline: overhunting
- **Sea turtle shell –**
 - Uses: decorative pieces, women’s jewelry, combs, eyeglass frames
 - Sources: sea turtles
 - Cause of Decline: overhunting, loss of nesting beaches
- **Furs and Skins-**
 - Uses: fur trade, fur coats, leather clothing
 - Sources: nearly any animal
 - Cause of Decline: overhunting, loss of habitat
- **Reptile skins-**
 - Uses: boots, belts, hatbands
 - Sources: snakes, crocodiles, sea turtles, lizards
 - Cause of Decline: overhunting, loss of habitat, misinformation
- **Box turtles-**
 - Uses: pets and pet trade
 - Sources: wild places
 - Overcollecting, loss of habitat, habitat fragmentation

With each artifact introduction, the students should have a sense why certain animals are sought after by humans, alternatives to these purposes, or conservation methods that might allow some animals to be taken while the species is preserved. Students should be left with a sense that there are alternatives, and not with a bereft feeling of despair. If everyone makes better choices, we can cohabitate with these species for generations to come.

Provocative questions:

- What animal species in our area have become extinct? Try and identify species that have disappeared in the last few centuries. Why did they become extinct?
- Why should we care about endangered species? If they are going to become extinct, why should we do something about it?

- What sorts of challenges exist in protecting endangered species? What contributions do the animals make ecologically, economically, medically, aesthetically or socially?
- Great white sharks have been known to eat people. Why shouldn't we hunt them to extinction?
- If you know how to care for a wild animal, why shouldn't you be allowed to keep it as a pet?
- Weasels are in decline in New York State. They are one of the top predators in the woodland food chain. Since house cats and weasels both eat mice, why shouldn't we just allow cats to replace weasels in the woodlands?

Project WILD lessons:

grades 5-8 **World Travelers** Introduced and alien species

grades 5-8 **Rare Bird Eggs for Sale** Identify reasons that wildlife is collected

grades K-4 **Too Close for Comfort** Explore negative impacts of overcrowding

grades 5-8 **Here Today, Gone Tomorrow** Define extinction and related terms, identify local ex.

grades 5-8 **Who Fits Here?** Identify life forms in the ecosystem, adaptations and characteristics

grades 5-8 **History of Wildlife Management** Define wildlife management, trends and philosophies

Project WILD is one of the most widely-used conservation and environmental education programs among educators of students in kindergarten through high school. It is based on the premise that young people and educators have a vital interest in learning about our natural world. A national network of State Wildlife Agency Sponsors ensures that Project WILD is available nationwide --training educators in the many facets of the program. Emphasizing wildlife because of its intrinsic value, Project WILD addresses the need for human beings to develop as responsible citizens of our planet.

The NYSDEC Public Affairs and Education staff are available to teach Project WILD workshops for educators. Please contact NYSDEC for a workshop. Please call 518-402-8043 or via e-mail at projwild@gw.dec.state.ny.us.