



Peregrines Over Kentucky

Purpose

To demonstrate that nature is influenced by changes in the environment.

Academic Expectations

1.1, 1.2, 1.3, 1.10, 2.2, 2.3, 2.4, 2.11, 2.19, 2.20, 3.7, 4.3, 5.4, 6.1, 6.3

Objectives

1. Identify 3 diurnal birds of prey found in Kentucky
2. Describe the various features of a bird of prey
3. Explain how the habitats of birds of prey may differ

Vocabulary

chlorinated hydrocarbons: organic chemical compounds used to kill unwanted plants and animals. DDT and other pesticides are chlorinated hydrocarbons that are easily spread throughout the earth by wind and by accumulating in plants and animals. Because DDT has an approximate half-life of 20 years, it can have damaging effects on ecosystems and nontarget species.

diurnal: active in the daytime

falcon: any of several related hawklike birds with long pointed wings, and short curved notched beak (Family Falconidae).

fledging: young bird ready for flight.

flyway: fly routes established by migrating birds.

food chain: a sequence (grass, rabbit, fox) of organisms in a community in which each member of the chain feeds on the member below it.

fostering: putting chicks in a controlled environment without adults until they can survive on their own.

hacking: putting chicks into nests to be raised by adult birds until they can survive on their own.

herbicide: a pesticide used to kill plants

insecticide: a pesticide used to kill insects

migration: to move from one region to another with changes in season.

- nocturnal:** functioning or active during the night.
- pesticide:** any chemical used to control populations of undesirable plants and animals
- raptor:** a bird that is predatory. Eagles, hawks, owls and falcons are raptors.
- scrape:** a depression in soil, sand or gravel made by peregrine falcons to lay their eggs.

Lab Sheets

1. Kentucky Peregrine Falcon Restoration
2. Food Web
3. Diurnal Birds of Prey of Kentucky

Project Wild Activities:

“Birds of Prey”, “Here Today, Gone Tomorrow”

Outcomes

1. Using reference books construct various food chains of selected birds including songbirds, waterfowl, birds of prey.
2. Using an opaque projector or scale drawings enlarge the 6 silhouettes given of the Diurnal Birds of Prey to life-size and design a bulletin board to inform other students about Kentucky’s birds.
3. Construct a human food chain from the last meal you consumed.

Bobbit’s Corner

Handmade Lint Paper

Materials:

Lint from clothes dryer, cake pan, cookie sheets, rags, small pieces of flowers, seeds, weeds, etc. torn into bits, water, wire mesh or screen, white glue, scissors.

*Cut the mesh wire so it fits within the cake pan. Remove the mesh wire.

*Place lint and cut-up materials into the cake pan and fill with warm water-let stand 15 minutes.

*Submerge the mesh wire in the “lint soup”. Lift out mesh so a layer of lint remains on wire.

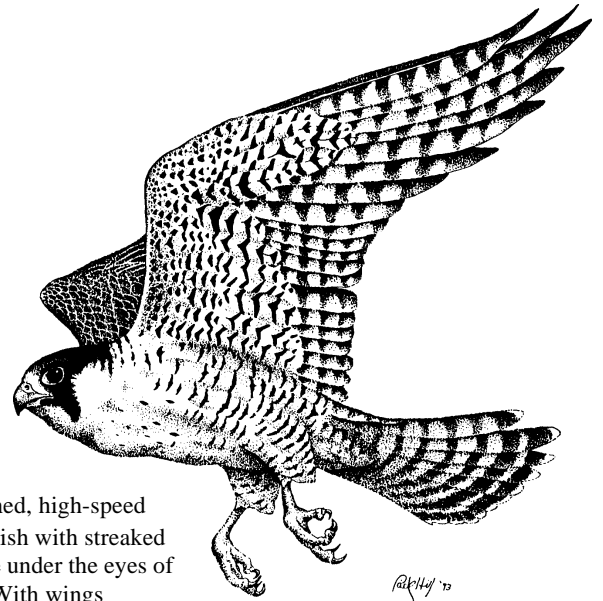
*Blot gently with rags.

*Place on a cookie sheet and let dry.

*Remove from screen and use as decorative paper or for display

KENTUCKY PEREGRINE FALCON RESTORATION

1993 brought peregrine falcons to downtown Lexington. Releases will continue there in 1994. In cooperation with city governments, businesses and citizens of the commonwealth, the Kentucky Department of Fish and Wildlife Resources is restoring these adaptable birds of prey to the Bluegrass State.



Identification: These crow-size birds with superior eyesight are streamlined, high-speed flyers with pointed wings and moderately long tails. Young birds are brownish with streaked breast and bluish gray beak, legs and feet. A black cap and broad moustache under the eyes of an adult bird sharply contrast with its white chin and yellow legs and feet. With wings spanning 45 inches, adult females weigh two pounds or more and are one-third larger than males.

Diet: Feeding mainly on other birds, peregrines take their prey on the wing and are capable of vertical dives of up to 200 mph.

Natural Enemy: Great horned owls are the greatest threat to young peregrines, especially released birds without parents present to protect them.

Reproduction: Peregrines over three years old breed in late winter or early spring and produce three or four cream-colored eggs with pink or dark red blotches. Eggs hatch after 30 days and with the passage of 40 more days the youngsters are ready to try their wings. Only about 30 percent of young peregrines survive each year; mortality is due largely to weather, disease and accidents.

Historic Habitat: Peregrines once nested on cliffs over the Rockcastle River and along the Kentucky-Virginia border and the birds were suspected of inhabiting the Cumberland Plateau as well as far Western Kentucky's swamplands and portions of the Ohio and Kentucky River valleys.

Why are peregrines being released in cities?

Ample food and water are available and clusters of tall buildings with ledges and rooftops resemble cliff faces and palisades where the birds once nested. And great horned owls are less of a threat in cities than on cliffs. Similar releases in other states have been successful.

How many are released in one location?

Each site receives 20 birds over a two-year period; that's 10 per year with five birds released at a time from a "hack" box.

What is a "hack" box?

The hack box, a 4'x 5'x 4' structure with removable front bars, is where the young falcons live until they're ready to fly. Hack boxes easily convert to nesting structures.

How does hacking work?

Five-week-old peregrines are kept in the hack box for three to seven days or until flight feathers develop. During this time food and water are provided without direct human contact. When the falcons start trying to force their way out of the box, the bars are removed and the birds learn to fly over the next several days. Each peregrine is harmlessly marked with a different paint color for easy identification. Falcons tend to return near their fledging site to nest.

Goals: The hope is for at least one breeding pair of falcons to return near each hack site, eventually leading to self-sustaining peregrine populations in Kentucky.

