Here Today, Gone Tomorrow

Study Units

Unit 1: Iowa’s Wildlife Resource Base; Unit 3: Wildlife Management

Supplemental Information

Species extinction is analogous to a machine losing pieces. The machine can keep running for a while, even if it is missing a bolt, washer, or other seemingly nonessential part. But if parts keep falling off, how long can it go on functioning? Would you want to fly on an airplane after someone had spent an hour removing small rivets from the wing?

That is what is happening on earth. Small parts of our working ecosystems are being lost. How long can all the systems that support life continue to operate, while losing pieces? This analogy can also be used to describe the effects when an endangered species is able to recover. If we save all the pieces, we can make the machine work again.

See the background information in Unit 1 and Unit 3 for a more complete discussion of endangered and threatened species in Iowa and a chart of “Native Species Reintroductions.” Many species reintroduced or given protection through regulations are ones many students (and adults) didn’t know were ever gone from the state (e.g., white-tailed deer, wild turkeys, giant Canada geese, beaver). We may be amazed in the future at which species, once endangered or extirpated, will become working pieces of Iowa’s ecosystem again. (There are more and more sightings of bobcats, mountain lions, bald eagle nests, and even black bears.)

Several factors have contributed to successes with endangered species. Habitat preservation and reconstruction are essential. Changes in human behaviors and attitudes toward these species often are necessary for successful reintroductions. Laws now protect deer, turkey, geese, and beaver. They cannot be harvested during their breeding seasons and limits are set on the numbers taken during hunting and trapping seasons. Large predators are no longer thought of as vermin.

Teaching Suggestions

Read “On A Monument To A Pigeon” from Aldo Leopold’s A Sand County Almanac. He writes of the extinct passenger pigeon. This essay conveys a sense of the importance of trying to save endangered species. It may inspire students to write their own essays on how they would feel if a species now endangered became extinct. Endangered means there’s still time, extinct is forever.

Use the Endangered and Threatened Animal Species in Iowa, the Endangered and Threatened Plant Species in Iowa, and the Here Today, Gone Tomorrow... Back Again chart as starting points for the students’ investigations. As more data is gathered, endangered and threatened lists are revised. Check the web sites listed in the “Additional Materials” section for the most up-to-date listing of Iowa’s endangered and threatened species.

Have students research species of wildlife extirpated from Iowa. Which ones have returned or been reintroduced? See the activity, “Back from the Brink.”

Have students study data gathered by NatureMapping volunteers. It is a citizen science program that uses volunteers to collect presence or absence data on common wildlife species. This data can be used to keep common wildlife common and avoid expensive crisis situations that arise when a species becomes endangered and is in need of extensive efforts to save it.
**Evaluation**

See the activity. Have students list species of wildlife that have been successfully reintroduced in Iowa.

**Student Materials**

*Here Today, Gone Tomorrow… Back Again*

**Teacher Aids**

Endangered and Threatened Animal Species in Iowa  
Endangered and Threatened Plant Species in Iowa

**Additional Materials**

[www.extension.iastate.edu/naturemapping](http://www.extension.iastate.edu/naturemapping) (data gathered by volunteers)

[www.iowadnr.gov](http://www.iowadnr.gov) - (Iowa threatened/endangered species list)
| animal species | extinct | endangered state/federal | threatened state/federal | reintroduced | part or role in the system | factors affecting status |}

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**Here Today, Gone Tomorrow...Back Again**

Iowa Department of Natural Resources

[Link to Iowa Department of Natural Resources website](www.iowadnr.gov)
Endangered and Threatened Animal Species in Iowa

Endangered Animals

Mammals
Indiana bat
plains pocket mouse
red-backed vole
spotted skunk

Birds
bald eagle
common barn owl
king rail
least tern
northern harrier
peregrine falcon
piping plover
red-shouldered hawk
short-eared owl

Fish
bluntnose darter
freckled madtom
lake sturgeon
least darter
pallid sturgeon
pearl dace
pugnose shiner
weed shiner

Reptiles & Amphibians
blue-spotted salamander
copperbelly water snake
copperhead
crawfish frog
great plains skink
massasauga rattlesnake
prairie rattlesnake
western hognose snake
wood turtle
yellow mud turtle

Land Snails
bluff vertigo
Briarton pleistocene vertigo
Iowa pleistocene ambersnail
Iowa pleistocene snail
Iowa pleistocene vertigo
Minnesota pleistocene ambersnail
frigid ambersnail

Fresh Water Mussels
buckhorn
bullhead
Higgin’s-eye pearly mussel
Ohio River pigtoe
Ozark pigtoe
slippershell
slough sandshell
spectacle case
yellow sandshell

Threatened Animals

Mammals
least shrew
southern bog lemming

Birds
long-eared owl
Henslow’s sparrow

Fish
American brook lamprey
black redhorse
blacknose shiner
burbot
chestnut lamprey
grass pickerel
orangemouth darter
Topeka shiner
western sand darter

Reptiles & Amphibians
Blanding’s turtle
central newt
common musk turtle
diamondback water snake
mudpuppy
ornate box turtle
speckled glass lizard
western worm snake

Butterflies
Baltimore
byssus skipper
mulberry wing
silvery blue
Poweshiek skipperling

Snails
Midwest pleistocene vertigo
occult vertigo

Fresh Water Mussels
butterfly
creek heelsplitter
cylinder
eclipse
purple pimpleback
strange floater
Endangered and Threatened Plant Species in Iowa

**Endangered Plants**
- annual skeletonweed
- arrow arum
- bearberry
- bigroot pricklypear
- black chokecherry
- black-based quillwort
- blue giant-hyssop
- bog bedstraw
- bog club moss
- bog goldenrod
- Canada plum
- cinnamon fern
- clammyweed
- cleft conoebia
- clustered broomrape
- cordroot sedge
- crossleaf milkwort
- Douglas' knotweed
- dwarf dandelion
- eared milkweed
- eastern prairie fringed orchid
- false mermaid
- fern-leaved false foxglove
- frenchgrass
- jointweed
- large-bracted corydalis
- large-leaved aster
- large-leaved violet
- long beech fern
- Matricary grape fern
- Mead's milkweed
- meadow spikemoss
- narrow-leaved milkweed
- northern lungwort
- northern panic-grass
- northern St. Johnswort
- pale false foxglove
- pale green orchid
- pickering morning-glory
- pine weed
- pink shin leaf
- poppy mallow (*Callirhoe triangulata*)
- povertygrass
- prickly rose
- purple cliffbrake
- purple milkwort
- ricebutton aster
- rice grass
- rough-leaved goldenrod
- rough-seeded f sempervirens
- roundleaved sundew
- running club moss
- rusty woodsia
- Schreber’s aster
- silky prairie-clover
- swamp loosestrife
- three-toothed cinquefoil
- water marigold
- water-willow
- waxy meadow rue
- whiskbroom parsley
- winterberry
- yellow-eyed grass
- yellow-lipped ladies-tresses

**Threatened Plants**
- beaked rush
- black huckleberry
- blue ash
- bog birch
- bog buckbean
- bog willow
- buffaloberry
- bunchberry
- creeping juniper
- dayflower
- false hel lerbore
- fameflower
- flax-leaved aster
- forked aster
- fragrant false indigo
- glandular wood fern
- golden corydalis
- golden saxifrage
- green violet
- hairy pinweed
- hairy waterclove
- hooded ladies-tresses
- Hooker’s orchid
- intermediate pinweed
- jeweled shooting star
- kidney-leaved violet
- kit tentails
- large arrowgrass
- leathery grape fern
- little grape fern
- little prickly pear
- low nutrush
- low sweet blueberry
- marginal shield fern
- meadow beauty
- northern bog orchid
- northern currant
- northern wild monkshood
- nodding wild onion
- oak fern
- one-sided shinleaf
- Oregon woodsia
- oval ladies-tresses
- pagoda plant
- partridge berry
- Pennsylvania cinquefoil
- Philadelphia panic-grass
- pinesap
- pink corydalis
- pink milkwort
- pipsissewa
- poppy mallow (*Callirhoe alcaeoides*)
- prairie bush clover
- purple fringed orchid
- queen of the prairie
- rock club moss
- rosy twisted-stalk
- round-stemmed false foxglove
- royal fern
- rush aster
- scarlet globemallow
- shining willow
- showy lady’s-slipper
- showy milkweed
- shrubby cinquefoil
- silverweed
- slender beardtongue
- slender cottongrass
- slender ladies-tresses
- slim-leaved panic-grass
- small arrow grass
- small sun drops
- spotted coral root
- spring ladies-tresses
- sweet Indian-pl antain
- tree club moss
- twinflower
- twin leaf
- velvetleaf blueberry
- Virginia snakeroot
- water parsnip
- western parsley
- western prairie fringed orchid
- wild lupine
- winged monkeyflower
- woodland horsetail
- woolly milkweed
- yellow monkeyflower
- yellow trout lily