



Conservation Scavenger Hunt (7-12)

At a glance

Students traverse the Zoo in search of answers to questions about endangered species.

Time requirement

One Zoo visit of at least 60 minutes

gorilla, polar bear, Mexican wolf, and Sumatran rhino.

Group size and grades

Any group size, divided into small groups of 10 or fewer students
Grades 7-12

Theme

Conservation efforts are helping to save endangered species.

Materials

Copies of the scavenger hunt
Pencils

Sub-themes

Goal(s)

To learn how conservation efforts are helping various endangered species

1. The World Conservation Union (IUCN) monitors the status of the world's species through the Red List of Threatened Species.
2. Recycling cell phones may help save gorillas.
3. Reducing our impact on global warming will help polar bears.
4. Learning to live with reintroduced wolves will ensure them a future in the wild.
5. Breeding Sumatran rhinos in captivity is a significant step towards salvation for this extremely rare species.

Objective(s)

1. Students will be able to name the World Conservation Union (IUCN) as the organization that monitors the status of the world's species through the Red List of Threatened Species.
2. Students will be able to describe a conservation effort of the

Academic standards

National Science Educational Standards	Life Science 9-12 <ul style="list-style-type: none">• The Interdependence of Organisms
Benchmarks for Science Literacy (Project 2061)	The Living Environment 9-12 <ul style="list-style-type: none">• Interdependence of Life
Ohio Science Academic Content Standards	Life Sciences <ul style="list-style-type: none">• Diversity and Interdependence of Life (10:18)
Kentucky Core Content—Science	Life Science 8-11 <ul style="list-style-type: none">• The Interdependence of Organisms (SC-H-3.5.5)
Indiana Science Standards	Principles of Biology <ul style="list-style-type: none">• Ecology (B.1.41)

Background

For decades, the World Conservation Union (IUCN) has been recognized as the leader in assessment of the conservation status of species on a global scale. IUCN is firmly committed to providing the world with the most objective, scientifically-based information on the current status of globally threatened biodiversity. The IUCN Red List of Threatened Species designates listed species to categories based on specific criteria—critically endangered, endangered, vulnerable, lower risk/conservation dependent, lower risk/near threatened, lower risk/least concern, and data deficient. A searchable database is available at www.redlist.org.

The Mexican wolf is a subspecies of the gray wolf, which is listed as lower risk/least concern on the IUCN Red List of Threatened Species. In addition, the Mexican wolf is listed as endangered under the U.S. Endangered Species Act. The last five known Mexican wolves in the wild were captured to provide the foundation for a captive breeding program as part of the U.S. Fish and Wildlife Service's Mexican Wolf Recovery Plan. Since 1998, wolves have been released and allowed to disperse within a designated section of Arizona and New Mexico called the Blue Range Wolf Recovery Area. The program will continue with the goal of restoring a self-sustaining population of at least 100 Mexican wolves within its historic range. The reintroduction project faces serious



conflicts with local ranchers who occasionally lose livestock to the wolves. Compensation for livestock loss, hazing through loud noises and flashing lights to keep problem wolves away, and translocation of problem wolves are a few of the solutions, yet anti-wolf sentiment still exists.



The western lowland gorilla is listed as critically endangered on the IUCN Red List of Threatened Species. Of the

four gorilla subspecies, the western lowland is the most numerous and widespread with a population of approximately 94,000. However, recent surveys indicate that the population is in rapid decline due to disease (Ebola virus), habitat loss (logging, mining), and poaching for the bushmeat trade (the illegal commercial sale of wildlife as food). All hope is not lost. Scientists are working towards vaccination programs. The Bushmeat Crisis Task Force (www.bushmeat.org) raises awareness of the bushmeat crisis. Recycling cell phones reduces the need to mine coltan, an ore used in cell phones that is mined in the heart of lowland gorilla habitat. The Zoo collects old cell phones to be recycled through its partner, Eco-cell.

Polar bears are listed as vulnerable on the IUCN Red List of Threatened Species. The major threat facing polar bears today is global warming. Polar bears hunt seals, using the sea ice as a platform from which to hunt. Global warming is causing the sea ice to melt earlier and refreeze later each year. This shortens the polar bears' hunting season and extends the summer time when little

food is available. This leaves the polar bears hungry and hinders reproduction.

The good news is that we can all do something



g about it. It's easy to change little things about our lifestyle that can influence global warming. For example, replacing standard light bulbs with compact fluorescent light bulbs will save carbon dioxide and it will save you money. Learn more at www.stopglobalwarming.org.

The Sumatran rhino is listed as critically endangered on the IUCN Red List of Threatened Species. There are fewer than 275 Sumatran rhinos remaining in the wild where they still face the threat of poaching. Poachers seek the rhino's horns for its supposed medicinal properties in traditional Asian medicine. The Zoo supports Rhino Protection Units that patrol protected areas to keep poachers away. Since so few Sumatran rhinos survive in the wild, it is important to breed them in captivity as a safeguard against extinction. There are only a handful of Sumatran rhinos in captivity with most of them here at the Zoo. In 2001, the Cincinnati Zoo was the first to produce a Sumatran rhino calf bred and born in captivity in 112 years. That success has since been repeated twice.



Activity

Getting ready

Copy student worksheets.

Doing the activity

Before coming to the Zoo, introduce the students to the World Conservation Union (IUCN) web page at www.iucn.org. Have them read the overview under the About IUCN section. The IUCN monitors the status of the world's species through the IUCN Red List of Threatened Species. Go to www.redlist.org. Have the students search for different plants and animals to see if they are listed on the Red List. Click on Categories & Criteria to become familiar with the different status levels.

While at the Zoo, the students will notice a Species@Risk logo with an IUCN category in parentheses following it on some animal signs. During their time at the Zoo, they are to visit four animals in particular, the Sumatran rhino, the gorilla, the Mexican wolf, and the polar bear. Using the signage, they should answer as many of the questions as they can—not all of them can be answered just by reading the signage.

Allow time back in the classroom for students to finish answering the questions through internet or library research.

Wrap-up

Discuss the issues facing each of the four animals. Were the students surprised by anything they learned? Do they feel like there is anything they can do to help?

Assessment

Collect the worksheets.

Unsatisfactory—Student did not complete the worksheet.

Satisfactory—Student completed the worksheet at a satisfactory level.

Excellent—Student completed the worksheet at an exemplary level.

Extension

Have the students choose a species to research and write an in depth report on to present to the rest of the class.

Conservation Scavenger Hunt

Gorilla World

What is the western lowland gorilla's status?



What is the bushmeat crisis?

How does recycling cell phones help the gorillas?

Lords of the Arctic

What is the polar bear's status?



How is global warming affecting polar bears?

What can we do to reduce global warming?

Wolf Woods

What is the Mexican wolf's status?



How are reintroduction efforts helping the wolf recover?

What is the biggest challenge the wolf faces in the wild?

Wildlife Canyon

What is the Sumatran rhino's status?



Why do poachers seek out Sumatran rhinos?

Why has the ability to reproduce these extremely rare rhinos in captivity been so important to the conservation of this species?