

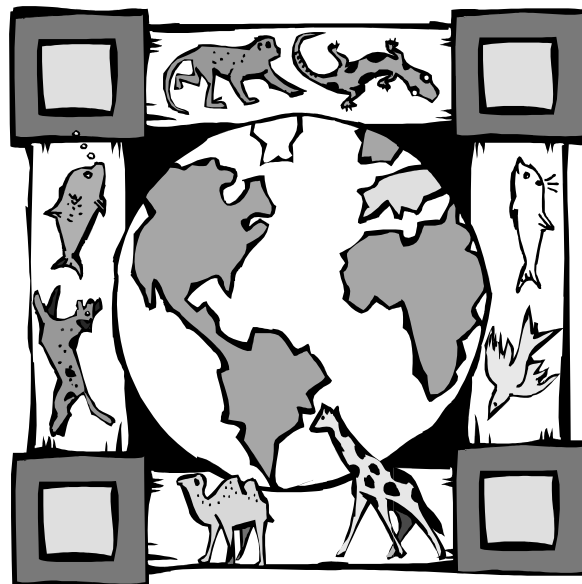
SELF-DIRECTED TOUR

ENDANGERED SPECIES

6th – 8th grades

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Endangered Species

Objectives:

Students will explore:

1. The concepts of extinction of species, endangered species, and threatened species.
2. The basic reasons for the decline of animal populations.
3. Ways to protect endangered and threatened species.
4. What zoos are doing to help endangered species.

Endangered Species Vocabulary:

Vanishing Animals: Zoos around the world use this term to denote any animal species whose population is decreasing.

Endangered Species: A legal term used by the U.S. Government to denote a species that is in danger of becoming extinct. These animals are protected by law.

Threatened Species: A government term denoting a species that seems likely to become endangered in the near future. Threatened species are also protected by law.

Extinct: A species wherein all its members have ceased to exist. There are no animals alive anywhere of this type.

Rare: A species that has naturally small populations.

Extirpated: A species that is absent from a given geographical area **but that** may exist elsewhere.

Native Species: A species that occurs naturally in an area (compare to introduced).

Introduced Species (alien species): A non-native species brought into an area by humans.

Poach: To kill, collect, or hunt an animal or plant illegally.

Habitat: An area where an animal lives that provides its' food, water, shelter, and cover.

SSP: Species Survival Plan - A plan developed by zoos to help save an endangered species.

ISIS: International Species Information System - A worldwide computerized system for zoo animal record keeping.

Captive Bred: An animal born in a human-made environment such as a zoo.

Pre-visit Activities

Select at least one of the suggested activities to complete before your Zoo visit.

1. Introduce the students to the following terms.

Extinction:	All individuals of a species no longer exist
Extirpated:	A species that no longer exists in a given geographic area.
Endangered Species:	Any species in danger of becoming extinct.
Threatened Species:	Any species likely to become endangered in the foreseeable future.
Vanishing Animal:	A term used by zoos to denote an endangered, threatened or rare species.

2. After reading the background information, conduct a class discussion on the following questions: Does it matter if an animal or plant becomes extinct? Which is more important to save: an endangered insect or a large animal, like the elephant? What are some of the natural and/or human-caused risks an animal has to face in order to survive? Extinction is a natural process, but humans can accelerate that process - what are some things humans do that cause the extinction process to occur at a quicker rate? What causes some plants and animals to be more at risk than others? What is being done to help endangered species? What can you personally do to help slow down human-caused species declines and extinctions?
3. Have the students compile a list of all the endangered species they know. Draw a line under the endangered species from Wisconsin (if they named any). Have the students take the complete list to the Zoo. When they return to the classroom, talk with the students about their findings. Were any of these animals at the Zoo? Did the signs at the Zoo list them as vanishing or endangered? For the animals that were not at the Zoo, have the students do additional research to find out if those animals are truly endangered. If the students did not list any Wisconsin endangered species, you may wish to have them contact a local DNR office to get an official Wisconsin Endangered Species list.
4. Investigate the endangered species problem through sources such as newspapers, news magazines or videos from your school or local library.

BIODIVERSITY & ENDANGERED SPECIES

BIODIVERSITY

Earth's rich variety of living things - its *biodiversity* - has been called its living treasure. Biodiversity includes all organisms, species, populations, genetic variations, communities, and ecosystems. It also includes interactions within the environment. All plants and animals are pieces in a huge, complex jigsaw puzzle that fits together to make Earth a good home – a home that supports every plant and animal species, including humans, all together.

The diversity of life on this planet is important to us all. No one creature lives on its own. Each life is intertwined with many others. Each habitat is full of predators, prey and other organisms. The interactions of all of them contribute to every detail of that habitat. Together they maintain its delicate balance. No single habitat stands on its own either. Entire ecosystems touch and mingle around the globe to form the wonderful Web of Life. Every living thing contributes its own special strand to that web. If we lose one strand in this delicate web, everyone and everything is affected. Biodiversity is a strength and indicator of a healthy planet.

THE BIODIVERSITY CRISIS

The world's leading scientific and environmental experts agree that the loss of biodiversity is one of the most urgent environmental problems we face. As the human population explodes (it is now over 6 billion), pressures on all natural resources increase. We are losing whole groups of plants and animals, many of which we never knew existed. These plants and animals are gone forever; they can never be replaced. With the intricate connections among all life on our planet, the loss of one species deeply affects all other species.

The extinction of species is not new, it has always been a part of nature's processes. It is believed that 90% of all the species that have ever lived are now extinct. Since life began on this planet, countless plants and animals have come and gone, made extinct by naturally changing conditions, natural disasters, and competition among species. The difference today is the alarming rate of extinction. One animal species becomes extinct every 20 minutes; the total number of species lost each year is approximately 40,000. This accelerated rate of extinction is directly linked to the human population explosion.

The extinction of each species brings the loss of unique genetic codes and the potential loss of medicines, foods, products, and jobs. At the same time, degradation of natural systems threatens the very cycles that purify our water and nutrient recycling, which support all life on Earth.

There are many reasons why the rate of extinction has dramatically increased. All of the reasons are directly or indirectly the result of one species: **HUMANS**. The five major problems that threaten the Earth's biodiversity are easily summed up as the HIPPO Dilemma. **HIPPO** stands for **H**abitat loss, **I**ntroduced species, **P**ollution, **P**opulation growth, and **O**ver-consumption. Most plant and animal species are not threatened by extinction due to only one problem. It is usually a combination of problems that threaten species.

The HIPPO Dilemma

- **Habitat Loss**
- **Introduced Species**
- **Pollution**
- **Population Growth**
- **Over-consumption**

All of these human actions decrease the Earth's biodiversity!

HABITAT LOSS

Habitat is the means of survival for the plants and animals that live there. An animal or plant's habitat is the place where it naturally lives and grows. It is where the species has the best chance of surviving. A good habitat provides a reliable source of food and water, as well as ample shelter and living space. Survival of a species depends on the survival of its habitat.

The principal threat to most species is habitat loss. As more and more people alter the natural landscape through deforestation, draining of wetlands, and industrial pollutants, more and more habitat is lost. Every hour, at least 1000 acres of tropical rainforests are destroyed. Half of our original wetlands have been destroyed. Ninety percent of the northwest old-growth forests have been destroyed or severely altered. Ninety-nine percent of the tall grass prairie has been destroyed. Habitat loss is not only a catalyst for extinction – it is considered the single greatest obstacle to helping many endangered species recover.

Because most species are uniquely adapted to their native habitats, they cannot easily move to new and different places. Animal populations become smaller and smaller and finally disappear when living space has become too small or too degraded.

The Rain Forest Habitat

The loss of rain forest, where up to one half of the world's species lives, continues at unbelievable rates. Yearly, an average of 400,000 square miles (about the size of Ohio) are destroyed. In many tropical countries there are so many poor people that there are not enough resources to go around. There is also a limited amount of suitable land. People in these countries, as well as large companies from richer nations, cut down large areas of tropical rainforest in order to use the land to plant crops or graze cattle. Much of the rainforest is destroyed for slash and burn agriculture – small areas of forest are burned down and then used for agriculture for a few years until the land becomes infertile, at which time more forest is burned and used.

INTRODUCED SPECIES

Many times plants or animals are brought into an area, either accidentally or on purpose, where they never lived before. These transplanted animals or plants are called **exotics**. These species all too often compete with native species for food, water, shelter, and space when they are released in the new environment and become invasive. Some exotic species will out-compete the native species for these resources; they may even kill off the native species. Because they often have no natural enemies in their new environment, exotics can quickly expand their population. Exotics also often bring in new diseases that are easily spread to the native species. The native species may not be immune to the disease, and so they die. Introduced species include the European rabbit to Australia, the Nile Perch to African lakes, the Zebra mussel to the Great Lakes, and the brown tree snake to Guam.

POLLUTION

There are many types of pollution – air, noise, water, and land pollution. They all can affect plants and animals. All types of pollution threaten many species of plants and animals.

When people use pesticides and herbicides to get rid of unwanted plants and animals, these poisons often harm more than just the 'pests', or target species. These chemicals may kill many non-target species. These poisons can also stay potent for hundreds of years. The process of **bioaccumulation** occurs when pollutants build up in an animal's body. For example, a snail

that feeds on aquatic plants that are contaminated by pollutants accumulates some of the poisons in its body (they are stored in tissues). When a fish eats the snail, it takes on the same toxins, plus those in the bodies of the other creatures it eats. Top predators, such as the Bald Eagle, accumulate the most toxins of all. Many species of top predators have suffered severe population declines as a direct result of this.

Bald Eagles vs. DDT

One reason the Bald Eagle was threatened with extinction was the buildup of the pesticide DDT in their bodies. DDT caused the eagle's eggshells to be thin, and the shells would break before they could hatch. This caused a serious decline in Bald Eagle populations.

The use of DDT has been banned in the United States. The Bald Eagle population all over the United States has increased to the point where the Bald Eagle has been downlisted from endangered to threatened on the USFWS Endangered Species List.

Airborne chemicals get into our water supplies. These pollutants are carried by wind and brought down to Earth by rain (*acid rain*) and snow. Pesticides sprayed on agricultural crops, toxins released in smoke, and car exhaust all add to this problem. Raw sewage and toxic chemicals are often dumped directly into waterways. Runoff from fields and lawns contain pollutants that also end up in rivers, streams, and lakes.

POPULATION GROWTH

Ten years ago the human population was five billion. As of October 1999, the world's population reached six billion. By the year 2100, the world's population is estimated to be over 10 billion. As the human population increases, so do the pressures on natural resources. More people use more natural resources, settle into new areas and clear more land for development. As the population grows, the problems of the HIPPO Dilemma become worse.

OVER-CONSUMPTION

Many animals and plants are increasingly threatened because of international trade in wildlife and wildlife products. Literally, millions of animals are illegally killed for their fur, feathers, horns, skin, or ivory. This is called *poaching*. Amazingly enough, these species are protected by laws, yet are still hunted and killed illegally. People who poach wildlife may stand to make a great deal of money for their kill. Many cultures use animal body parts in folk medicines or as decoration, and the people who make these items are willing to pay a premium for the parts they need. Ironically, these items are in demand in industrialized countries, and the people who buy these items usually have very little knowledge of how endangered some of these animals are. Enforcement of laws against poaching can be difficult, especially since those who protect species may not have the money or resources to adequately fight poachers.

There are some species of animals that are collected for the pet trade. These animals are collected live, but many die on their way to the pet stores. Some species are also threatened by private collectors - they may collect a species simply because it is beautiful. Often times they will pay large sums of money to add to their private collection.

ANIMALS AT RISK

Animal populations are often put at risk by human actions. But, there are also natural factors that put some animals at a greater risk of becoming extinct. **Animals that are more at risk of becoming extinct may have one or more of the following characteristics:**

Competition with humans

Some animals may kill livestock, eat or ruin crops, or feed on animals that people also like to eat. Because they interfere with people's activities, these animals are often killed.

Large size

Size varies from species to species. A large animal like the elephant requires a larger area for space, a larger food supply, and therefore needs a larger habitat.

Long life span

Many endangered species are long-lived animals sharing habitat that is desired by humans.

Migrate

Animals that migrate usually depend on several different habitat areas. Because of this, they are very vulnerable to habitat destruction. For example, many songbirds that migrate to tropical forests in our winter are in trouble because thousands of acres of their rain forest habitat have been developed into pastures, farms, towns, and roads. When they return to North America in the Spring, some of their forest habitat may have been turned into housing developments, malls, or roads.

Naturally rare

Some animals are rare throughout their range, and others have a very limited range. These animals are often vulnerable to habitat destruction and other human activities (hunting, pet collecting, etc.).

Sensitive to change

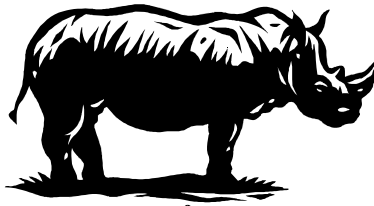
Many animals have a very hard time adapting to changes in their environment. For example, birds of prey and many other animals are very sensitive to chemical changes in their environment, such as pesticides. Other animals have a hard time competing with introduced species that have the same nesting and/or food requirements.

Small broods and long gestation periods

When the populations of these animals drop, it takes much more time for their populations to recover because of their low birth rates. They have few offspring at one time, and it takes a long time for them to develop *in-utero*. They also do not reproduce fast enough to produce offspring that can adapt to changing conditions.

Specific food or nesting requirements

Some animals are very selective about what they eat or where they nest. These specialized animals, which are often adapted to eating only one type of food or living in only one type of area, can become endangered if their food source or nesting habitat disappears.



Zoos: saving species

Once a plant or animal becomes threatened with extinction, it can be difficult to save it. However, there are many things being done to help save endangered and threatened species. But, it is important to remember that the ultimate key to saving a species is habitat protection.

Modern zoos and aquariums play a key wildlife conservation role through their programs in education, science, and breeding of species. Since most zoo animals are born in captivity, it is possible to sustain most zoo populations without having to capture individuals from the wild. Zoos and aquariums now breed a number of endangered animals that are threatened with extinction in nature, thereby establishing populations that one day might provide animals for return to the wild. Zoos are limited in size, however, and it is estimated that Zoos in North America may conserve only 900-1000 species of the 45,000 vertebrate animals known to exist.

AMERICAN ASSOCIATION OF ZOOLOGICAL PARKS AND AQUARIUMS (AZA)

The AZA was established in 1924 as a professional organization dedicated to the advancement of North American zoos and aquariums through conservation, education, scientific studies, and recreation. AZA was originally conceived as a forum for information exchange among zoo and aquarium professionals. In 1979, AZA's highest priority became the conservation of the world's wildlife and their habitats. Conservation, education, and research programs for endangered, threatened, and rare wildlife are vital to AZA. AZA members are working daily toward the conservation of the Earth's endangered species and threatened habitats.

SPECIES SURVIVAL PLAN

Modern zoos and aquariums play a key role in conserving critically endangered wild animal populations through participation in Species Survival Plans (SSPs) developed by the AZA. The mission of the AZA's SSP program is to help ensure the survival of selected endangered wildlife species. Each SSP carefully manages the breeding of a species in order to maintain a healthy and self-sustaining captive population that is both genetically diverse and demographically stable. There are currently 106 SSPs covering 161 individual species. Each plan has a coordinator who makes recommendations for breeding and transfer of individuals to optimize breeding success and genetic diversity. Studbook keepers maintain detailed records for the entire captive population of a species including births, deaths, transfers, and family lineage.

The SSP is a cooperative effort among AZA's 183 accredited zoos and aquariums and is designed to carefully organize and manage breeding efforts. The SSP is *not* a substitute for preserving animals in nature. Instead it is one of many strategies aimed at maintaining healthy populations in captivity, which may some day be candidates for return to the wild, if there are safe places for them to return.

Other SSP strategies for ensuring the survival of selected species include:

- ★ Increase public awareness of wildlife conservation issues through education
- ★ Non-invasive captive research on behavior, health and reproduction
- ★ Reintroduction of individuals to the wild
- ★ Field research and habitat protection projects
- ★

INTERNATIONAL SPECIES INFORMATION SYSTEM (ISIS)

Begun in 1975, ISIS is an international non-profit organization serving nearly 600 zoological institutional members from 54 countries worldwide. ISIS supports the conservation and preservation of species by helping member facilities manage their living collections. They do this by developing record keeping computer programs, collecting data, and then pooling all of the information together. These programs are used to make the task of finding suitable mates for captive animals easier. Information is available for 250,000 living specimens from 6,000 species, along with an additional 750,000 of their ancestors. Most of these specimens were bred in member facilities.

REINTRODUCTION

The dream of all zoo professionals is to see a time when, through captive breeding, stable populations of animals may be reintroduced to protected natural habitats. In recent years, this dream for captive bred animals has become a reality. The Zoological Society and the Milwaukee County Zoo have been involved with a number of conservation projects. The most notable of these are the return of captive bred golden lion tamarins to the rainforest of Brazil, the trumpeter swan to Wisconsin, and studies on elk in Yellowstone that led to the reintroduction of wolves to Yellowstone National Park. The hope is that these successful beginnings will provide the knowledge for many more such programs.

EDUCATION

Central to the existence of any zoo is the educational aspect of its 'living laboratory'. For over one hundred years zoos and aquariums have brought people living in cities a glimpse of the animal wonders on Earth. With naturalistic animal exhibits and informational signs, zoos and aquariums provide education that is real, alive, and enjoyable to the most casual visitor. Zoos reach urban populations, those least familiar with animals. More and more of our population lives in urban areas. In recent years zoological education departments have specialized in not only school programs, but also a multitude of programs that carry a conservation message to audiences of all ages and education levels.



WILDLIFE LAWS

Endangered Species Act (1973)

This law was passed to protect plants and animals that are in danger of becoming extinct. Species that are officially listed as threatened or endangered on the U.S. Fish and Wildlife Service list are not allowed to be imported or exported; hunted, collected, or harassed; transported across state or national lines for commerce; sold; or used in any way without an authorized permit from the U.S. Fish & Wildlife Service. Restrictions on trade and transport apply to live and dead animals and plants, their parts, and the products manufactured from them. Protected species may be used only for the purposes of scientific research, public education, exhibition in zoos, or efforts that could help save the species.

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) (1975)

This international treaty, which was designed to protect plants and animals affected by international trade, regulates the import and export of endangered and threatened wildlife. Nations that sign the treaty agree to restrict the trade of certain species.

Lacey Act (1900)

This U.S. act prohibits the taking, selling, buying, importing, exporting, or transporting of any species (including rare plants and fish) that are protected by any state, federal, tribal, or foreign law. The act also makes it illegal to import any species into the United States that may be harmful to people, agriculture, or wildlife. And it requires that wildlife be transported humanely and be correctly identified. Its strict penalties (up to a \$20,000 fine and/or five years' imprisonment) are often used to prosecute commercial traffickers.

The Eagle Protection Act (1940)

Passed to protect bald eagles and amended in 1962 to include golden eagles.

The Marine Mammal Protection Act (1972)

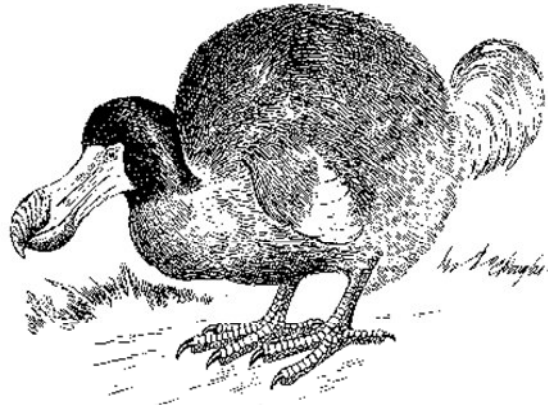
This act prohibits the taking or harming of marine mammals in U.S. waters, or importing their body parts and products. (Marine mammals include polar bears, sea otters, walruses, dugongs, manatees, whales, seals, and sea lions.)

The Migratory Bird Treaty Act (1918)

This act protects migratory birds and restricts trade in their body parts, feathers, nests, eggs, and products made from them. Seasonal hunting is allowed for some ducks, geese, woodcocks, and other migratory birds.

EXTINCT IS FOREVER

Elephant Bird	1600's
Auroch	1627
Dodo Bird	1680's
Stellar's Sea Cow	1768 (27 years after it was discovered)
Blue Buck	1799
Great Auk	1844
Giant Moa	1850
Cuban Red Macaw	1864
Atlas Bear	1870
Labrador Duck	1875
Quagga	1878 (Zebra-like animal)
Mamo	1898
Florida Black Wolf	1900
Quelli	1900
Arizona Jaguar	early 1900's
Passenger Pigeon	1914
Carolina Parakeet	1917
Florida Red Wolf	1917
Caribbean Monk Seal	1922
Heath Hen	1932
Bali Tiger	1937
Caspian Tiger	1950's
Blue Pike	1970
Javan Tiger	1972
Dusky Seaside Sparrow	1987
Ivory Billed Woodpecker	1990?



Dodo Bird

Animals Back from the Brink of Extinction

- American Bison
- American Alligator (delisted 1987)
- American Bald Eagle (downlisted to threatened status 1998)
- Whooping Crane
- Brown Pelican
- Elk
- Musk Ox
- Osprey
- Peregrine Falcon
- Trumpeter Swan
- Wild Turkey
- Wood Duck
- Pronghorn
- Northern Sea Otter
- Gray Whale (eastern North Atlantic population delisted 1994)



American
Bison

Zoo Animal Information

The status listed for each animal is the status of IUCN. There are eight main Categories of Threat in the IUCN Red List system:

EXTINCT (EX): there is no reasonable doubt that the last individual has died.

EXTINCT IN THE WILD (EW): the species is known only to survive in cultivation, in captivity, or as a naturalized population well outside its past range.

CRITICALLY ENDANGERED (CR): the species is facing an extremely high risk of extinction in the wild in the immediate future.

ENDANGERED (EN): the species is facing a very high risk of extinction in the wild in the near future.

VULNERABLE (VU): the species is facing a high risk of extinction in the wild in the medium-term future.

LOWER RISK (LR): the species does not satisfy the criteria for any of the categories Critically Endangered, Endangered or Vulnerable. Species in the Lower Risk category can be separated into three subcategories:

Conservation Dependent (cd): Species that are the focus of a conservation program aimed at the species in question, the cessation of which would result in the species qualifying for one of the threatened categories above within a period of five years.

Near Threatened (nt): Species that do not qualify for Conservation Dependent, but which are close to qualifying for Vulnerable.

Least Concern (lc): Species that do not qualify for Conservation Dependent or Near Threatened.

DATA DEFICIENT (DD): there is inadequate information to make a direct, or indirect, assessment of its risk of extinction based on its distribution and/or population status.

NOT EVALUATED (NE): A species has not yet been assessed.

Waldrapp Ibis (*Geronticus eremita*) Critically endangered bird

Estimated wild population: unknown, there are approx. 220 in Morocco

Estimated captive population: more than 700 in captivity, most captive bred

Current Distribution: Algeria and the Atlantic coast of Morocco

Diet: Grasshoppers, beetles, and lizards.

Nesting: The Ibis nests in loose sticks and twigs on cliff ledges. They lay up to five eggs; both parents care and feed the young. The young eat food regurgitated from the parent's mouth.

Threats and Conservation: Crops are treated with pesticides, which poison birds and destroy their food source. The climate has become drier than in the past, and this causes the loss of feeding areas. There are tentative plans to release captive bred birds into Italy and Spain. Two temporary watchmen have been hired in Morocco during the breeding season to protect the birds.

Nicobar Pigeon (*Caloenas nicobarical*) Lower risk – near threatened bird

Estimated wild population: unknown

Estimated captive population: 70 in captivity, 83% captive bred

Current Distribution: Nicobar and Andaman islands, east through Indonesia and the Philippines to New Guinea and the Solomon Islands

Diet: Hard seeds, fruit and some invertebrates.

Nesting: The birds nest in colonies from 10 to 30 feet above ground in thick brushy areas on the islands. The hen lays one white egg. The nestling is naked and has shiny black skin, not even covered with down. The fledging period is three months.

Threats and Conservation: Loss of habitat through destruction of rainforests. They are also heavily hunted.

Bali Mynah (*Leucopsar rothschildi*) Critically endangered bird

Estimated wild population: less than 20

Estimated captive population: approximately 750, most captive bred

Current Distribution: a small area of Bali Barat National Park on the island of Bali in Indonesia.

Diet: Omnivorous – caterpillars, ants, termites, other insects, seeds, and fruit.

Nesting: Nests in old woodpecker holes in trees found in dense coconut tree groves. Both parents care for their young. Can imitate sounds, calls, and voices.

Threats and Conservation: Endangered due to the destruction of the rainforests and human encroachment. They require nest holes in trees and are unable to adjust to living on or near cultivated land. These birds are also very popular in the pet trade due to their rarity and ‘power status symbol’. SSP captive birds are being released into the Bali Barat National Park - guard protection has been increased, nest boxes are being built, and fruit trees are also being planted in the park. There are some plantations being converted back to their ‘natural’ habitat. Public education about the Bali Mynah is being increased throughout Bali.

Western Lowland Gorilla (*Gorilla gorilla gorilla*) Endangered ape

Estimated Wild Population: may number as many as 111,000

Estimated Captive Population: 560 - 60% captive bred

Current Range: Angola, Cameroon, Central African Republic, Congo, Equatorial Guinea, Gabon, and Nigeria

Habitat: Dense or secondary forest and woodland

Diet: They are almost totally vegetarian, eating leaves shoots, and stems, supplemented by vines, bark, wood, roots, flowers, and some invertebrates such as grubs, ants, and termites.

Major Threats: Habitat loss and degradation is a major threat to gorillas. Forests are being destroyed both for commercial logging and for subsistence agriculture. Illegal hunting of these animals for “bushmeat” may now be more of a threat to African primates than habitat loss. Another potential threat to gorillas is exposure to human diseases, especially to those living in close proximity to people.

Conservation Efforts: Continued anti-poaching campaign with well-armed and well-trained game wardens; public education on gorilla and wildlife conservation, and resource management; education of tourists and control of tourist volume; development of vaccines and medical care for gorillas; placed on the zoo world’s Species Survival Plan (SSP).

Additional Notes: Gorillas are generally shy and gentle. Gorillas live together in small groups, from 5 to 30; the average group is 11. The length of their arms makes it difficult for them to walk upright. The group leader is the mature male with silver hair on his back.

Bonobo (*Pan paniscus*) Endangered ape

Estimated Wild Population: unknown – may be as many as 25,000 or as few as 5,000

Captive Population: 185

Current Range: a small region in the Democratic Republic of Congo, in the Congo River Basin south of the Congo River.

Habitat: lowland rainforest and swamp forest.

Diet: Bonobos primarily feed on arboreal fruits, leaves and pith from stems. They are known to occasionally eat insects and hunt small mammals. They have also been observed to slap water up from a stream and eat either invertebrates or fish.

Major Threats: The bonobo is threatened by forest destruction for commercial forest products and agriculture. They are illegally hunted for food (bushmeat) and for sale to the pet trade. Bonobos are occasionally hunted for traditional medicinal or magical purposes.

Conservation Efforts: In the Congo, there are currently only two protected areas for the bonobo -- the Salonga National Park and the Luo River Scientific Reserve. In some areas of the Congo, local people believe that bonobos are close relatives and protect them. Civil war has impeded research and conservation efforts in the wild. Work to be done includes surveys of the population and habitat, as well as setting aside preserves and offering education programs in the Congo. Efforts to create and maintain a self-sustaining captive population are being coordinated by the Bonobo SSP, which is funded by the Zoological Society of Milwaukee County and based at our Zoo. See www.zoosociety.org/Conservation/Bonobo for more information on Bonobo SSP and Zoological Society conservation projects.

Additional Notes: Bonobos, along with chimpanzees, are the closest genetic relatives to humans.

Orangutan (*Pongo pygmaeus*) Endangered ape

Estimated Wild Population: approximately 6,500 - 7,500 orangutans in Sumatra and 12,000 - 13,000 in Borneo

Estimated Captive Population: 111 Sumatran, 74 Bornean, and 48 sub-specific hybrid orangutans

Current Range: Sumatra and Borneo

Habitat: Lowlands and hilly tropical rain forests

Diet: Fruit makes up the majority of an orangutan's diet, which also includes bark, flowers, honey and occasional insects

Major Threats: The primary threat is habitat destruction. Orangutans are also sold in the pet trade - poachers shoot the mother orangutan and take the baby from its mother's arms if the baby survives the fall.

Conservation Efforts: Orangutans are protected under Indonesian law; no orangutan can be exported legally without a permit, but illegal traffic still remains.

Additional Notes: Orangutans are seldom found in groups of more than two or three. The name 'orangutan' literally means, "man-of-the-forest".

Golden Lion Tamarin (*Leontideus rosalia*) Critically endangered monkey

Estimated Wild Population: 1000

Estimated Captive Population: 590

Current Range: a small area of Brazil northeast of Rio de Janeiro

Habitat: Primary tropical forest. Usually found at a height of 3-10 meters in the trees, vines, and epiphytes.

Diet: fruit, insects and eggs and occasionally catch small lizards, birds and bird eggs

Major Threats: Habitat destruction – an extremely restricted range causes them to be threatened with extinction because they do not use cultivated land.

Conservation Efforts: Today the golden lion tamarin project is one of the most successful conservation efforts by zoos to reintroduce captive raised animals into their native habitat. In 1983 the first captive raised golden lion tamarins were released into the *Poco das Antas* reserve in Brazil. Prospective individuals for release into the wild were trained on the zoo grounds in a wooded area. The surrounding trees were joined together with a network of ropes that served as pathways for the animals. The training also included teaching the animals how to find food and water sources in their new habitat. Nest boxes were provided for the animals as shelter and security areas. During daylight hours, staff, researchers and volunteers monitored the golden lion tamarins. The animals were fitted with radio collars.

Additional Notes: Golden lion tamarins use their long slender tails for balancing but not for grasping branches.

Diana Monkey (*Cercopithecus diana*) Endangered monkey

Current Range: Ghana, Guinea, Ivory Coast, Liberia, and Sierra Leone

Habitat: High canopy forests, mature secondary forest, riverine forest, and areas of semi-deciduous forest.

Diet: Fruit, insects, and vegetation

Major threats: It is thought to be declining because of destruction of forest habitat through agricultural expansion and logging. It is also hunted for meat by people.

Additional Notes: Diana monkeys are a social species, living in groups of 15-30 individuals with a single adult male. Daughters stay with their mothers as long as they live, while males leave the natal group near the time of adolescence. These monkeys communicate with one another using calls and visual cues.

Black and White Ruffed Lemur (*Varecia variegata*) Endangered primate

Current Range: island of Madagascar (eastern coast). A small population was introduced, and still lives on, Nosy Island.

Habitat: wet evergreen forests

Diet: primarily fruit eaters, but may occasionally eat leaves, flowers, and soil.

Major Threats: Deforestation and habitat destruction in Madagascar are the primary threats to ruffed lemurs. Lemurs are also poached for their meat and fur.

Conservation efforts: There are approx. 250 black and white lemurs in the AZA SSP. In addition, on Madagascar, laws protecting ruffed lemurs are enforced, and education programs are taught.

Additional Notes: Ruffed lemurs may be found in monogamous pairs or in loosely organized groups. Individuals scattered about the dense forest communicate through loud booming calls.

Cheetah (*Acinonyx jubatus*) Vulnerable feline

Estimated Wild Population: 9,000 to 12,000

Estimated Captive Population: 490

Current Range: Africa from south of the Sahara to southern Africa. Thought to be recently extinct in Asia.

Habitat: open semi-arid grasslands, scrubland, savanna woodland, occasionally forest margins

Diet: Carnivorous - small antelope, young of large antelope, warthogs, hares, and game birds.

Breeding: It is said that cheetahs are ‘genetically closer than twins are’ due to tremendous natural inbreeding. Captive breeding is difficult and very few have been born in captivity.

Major Threats: Loss of habitat, poaching, competition with large predators and ranchers. Cheetahs also suffer from loss of genetic variation, which makes the animals less healthy and more vulnerable to disease. Cheetah cubs therefore have a high mortality rate.

Conservation Efforts: As a protected species in Namibia, people are allowed to remove cheetahs only if they pose a threat to livestock or human life. Cheetahs are protected in many national parks and reserves, but overcrowding in the parks causes cheetahs to lose many of their kills to other predators and forces them to leave the safety of the reserves.

Additional Notes: The cheetah's flexible spine, oversized liver, enlarged heart, wide nostrils, increased lung capacity, and thin muscular body make this cat the swiftest hunter in Africa. Covering 7-8 meters in a stride, with only one foot touching the ground at a time, the cheetah can reach a speed of 70 mph in seconds. At two points in the stride, no feet touch the ground.

Amur or Siberian Tiger (*Panthera tigris altaica*) Critically endangered feline

Estimated Wild Population: less than 250

Estimated Captive Population: there are more Siberian tigers in captivity than in the wild

Current Range: Manchuria and parts of the Soviet Far East and the Korean peninsula

Habitat: Adapts to many habitats but in the northern ranges mainly frequents broad-leafed-coniferous forest and hilly areas with trees and thick brush

Diet: Carnivorous – their primary prey is elk and wild boar.

Major Threats: The main threats to tigers are poaching, habitat loss, and population fragmentation. Tiger parts are used in traditional Chinese medicine because some people believe that certain tiger parts have special powers. Many people fear that tigers will attack their livestock, so the tiger is also killed as a pest. Worse yet, no one knows how to return a captive-born Siberian tiger to the wild. They learn to hunt from their mothers, so if a cat is the descendent of generations of captive animals, hunting for their own survival may not be likely. However, housecats do well at hunting, so larger cats may also be able to revert to the wild.

Conservation Efforts: The captive program for Siberian tigers is the largest and longest managed program for any of the subspecies. The Siberian tiger served as one of the models for the creation of scientifically managed programs for species in captivity in zoos and aquariums worldwide. According to the 1997 International Tiger Studbook there are about 501 Siberian tigers managed in zoos. This captive population is descended from 83 wild-caught founders. For the most part, the Siberian tiger is considered secure in captivity, with a large, genetically diverse and stable population.

Additional Notes: The Siberian tiger is the world's largest wild cat and lives farther north than any other species. Its thick coat and heavily furred paws keep it warm during the long cold winters. The Siberian tiger's orange coloring is paler than the coloring of other tigers. Its stripes are brown rather than black, and are widely spaced. It has a white chest and belly, and a thick white ruff of fur around its neck.

Snow Leopard (*Panthera uncia*) Endangered feline

Estimated Wild Population: believed to be 4,500 – 7,400

Estimated Captive Population: 400

Current Range: Mountains of India, Pakistan, Afghanistan, Nepal, Bhutan, Tibet, Mongolia, China, and parts of the former Soviet Union

Habitat: Arid alpine regions between tree line and permanent snow

Diet: Carnivorous – wild sheep, goats, some pika, hares, and game birds.

Major Threats: Habitat loss, fragmented breeding populations, strong hunting tradition, demand for its fur, and possibly depletion of its prey species leading to predation on domestic

livestock and consequent shooting by livestock owners. Some of their body parts are also used in traditional medicines.

Conservation Efforts: Listed under the SSP, education of mountain people, aid for those who have lost livestock to leopards, protection of habitat, as well as continued study of leopard ecology. Most nations will no longer permit the export or import of their furs.

Additional Notes: Solitary, travels extensively to hunt. Usually nocturnal, but may hunt by day.

Jaguar (*Panthera onca*) Lower risk – near threatened feline

Estimated Captive Population: 225 - 90% captive bred

Current Range: Many areas from Mexico to Argentina. May be in New Mexico and Arizona.

Habitat: Tropical rain forest, swamps, and grasslands

Diet: Carnivorous.

Major Threats: The primary threat to the jaguar is habitat destruction through fragmentation and deforestation. They are also killed because farmers see them as a threat to their livestock.

Additional Notes: The largest population remaining is in the Amazon Rain Forest.

Black Rhinoceros (*Diceros bicornis*) Critically endangered

Estimated Wild Population: 2500-2700

Estimated Captive Population: 220

Current Range: Various southern African countries

Habitat: Tropical bushlands, grassland, and savannahs in Africa.

Diet: Leaves and shoots of bushes. Must have drinking water daily.

Major Threats: The rhino is hunted by poachers who sell the horns for medicinal or ornamental purposes in Asia and the Middle East. Habitat loss is also a problem.

Conservation Efforts: Because of CITES, black rhinos are protected by strict laws prohibiting hunting, but poaching continues. Conservation efforts originally focused on the prevention of poaching. African governments began to pursue poachers, confiscate rhino horns, and move rhinos to reserves. Killing still continued. Zimbabwe and Namibia then tried a 'dehorning' campaign. Black rhinos were tranquilized and the horn cut off. This helped somewhat, but left the rhino vulnerable to predators, and poachers still killed rhinos anyway. As a last resort, Zimbabwe has radio-collared their remaining black rhinos for tracking and monitoring. Other countries have literally placed their black rhinos under armed guard – they forage during the day, but are locked up under guard at night. Kenya, as well as many zoos around the world, has worked to increase the population of black rhinos through captive breeding.

Chinese Alligator (*Alligator sinensis*) Critically endangered reptile

Estimated Wild Population: less than 100

Estimated Captive Population: over 10,000

Current Range: the lower Yangtze River of China

Habitat: Marshlands, ponds, lakes, river backwater canals, rice paddies and irrigation networks

Diet: snails, crustaceans, insects and fish, but young waterfowl and rodents are also eaten.

Major Threats: Habitat loss. Most now live in rice paddies. However, a poorly devised alligator-farming plan in China has severely decreased the remaining wild population and is probably the biggest threat to this species today.

Conservation Efforts: The Chinese alligator is protected in China as a "first-class rare animal," and hunting is prohibited. There are approximately 100 Chinese alligators managed under the Species Survival Plan.

Milwaukee County Zoo Endangered Species List (partial)

House/Area Status

Apes of Africa

1. Western Lowland Gorilla (*Gorilla gorilla gorilla*) E
2. Bonobo or Pygmy Chimpanzee (*Pan paniscus*) E

Primates of the World

1. Mandrill (*Papio sphinx*) E
2. Golden Lion Tamarin (*Leontopithecus rosalia*) E
3. Cotton Top Tamarin (*Saguinus oedipus*) E
4. Black Handed Spider Monkey (*Ateles geoffroyi*) E
5. Orangutan (*Pongo pygmaeus*) E
6. Diana Monkey (*Cercopithecus diana*) E
7. Siamang (*Hylobates syndactylus*) E

Aviary

1. Waldrapp Ibis (*Geronticus eremita*) E
2. Nicobar Pigeon (*Caloenas nicobarica*) R
3. Rothschild's Bali Mynah (*Leucopsar rothschildi*) E
4. Guam Micronesian Kingfisher (*Halcyon cinnamomina*) E
5. Humboldt Penguin (*Spheniscus humboldti*) T

Small Mammal House

1. Ring-Tailed Lemur (*Lemur catta*) E
2. Black and White Ruffed Lemur (*Varecia variegata*) E
3. Golden Lion Tamarin (*Leontopithecus rosalia*) E
4. Cotton Top Tamarin (*Saguinus oedipus*) E
5. Goeldi's Monkey (*Callimico goeldii*) E
6. Mouse Lemur (*Microcebus murinus*) E
7. Black Footed Cat (*Felis nigripes*) E

Feline House

1. Cheetah (*Acinonyx jubatus*) E
2. Siberian Tiger (*Panthera tigris altaica*) E
3. Snow Leopard (*Panthera uncia*) E
4. Jaguar (*Panthera onca*) E

South American & Asian Yards

1. Bactrian Camel (*Camelus bactrianus*) E
2. Brazilian Tapir (*Tapirus terrestris*) E
3. Malayan Tapir (*Tapirus indicus*) E
4. Asiatic Black Bear (*Ursus thibetanus*) T

African Yards

1. Black Rhinoceros (*Diceros bicornis minor*) E
2. African Elephant (*Loxodonta africana*) E

North American Yards

- | | |
|--|---|
| 1. Gray Wolf (<i>Canis lupus</i>) | T |
| 2. Polar Bear (<i>Ursus maritimus</i>) | T |
| 3. Grizzly Bear (<i>Ursus arctos horribilis</i>) | T |

*Status: E - endangered, T - threatened, R - rare, Rec – recovering, V - vulnerable

ANIMALS AT THE MILWAUKEE COUNTY ZOO WITH AN SSP

Large Mammals:

African Elephant	Black Rhinoceros	Baird’s & Malayan Tapir
Cheetah	Jaguar	Siberian Tiger
Snow Leopard	Tree Kangaroo	Polar Bear
Bongo	Giraffe	African Lion

Birds:

Bali Mynah	Cinereous Vulture	Congo Peafowl
Humboldt Penguin	Mauritius Pink Pigeon	Micronesian Kingfisher
Victoria Crowned Pigeon	Rhinoceros Hornbill	Guam Rail

Primates and Small Mammals:

Ring-tailed Lemur	Ruffed Lemur	Cotton-top Tamarin
Golden Lion Tamarin	Goeldi’s Marmoset	Black & White Colobus
Siamang	Bonobo	Orangutan
Western Lowland Gorilla	Mandrill	Diana Monkey
Spider Monkey	N.A. Otter	Red Panda

Fish, Amphibians, and Reptiles (ARC)

Lake Victoria Cichlids	Puerto Rican Crested Toad	Chinese Alligator
Cuban Iguana	Aruba Island Rattlesnake	

Post Visit Activities:

1. Have students investigate the media for articles about anything that may affect wildlife. Articles may be about business practices, housing developments, road building, pollution of air or water, overpopulation, droughts, floods, wars, famine, etc.
2. Develop a project that will involve the school and community in saving endangered species.
 - A. Have students design a marketing campaign for your school on awareness concerning endangered species through ads, posters, bulletin boards, etc.
 - B. Have the class write to government representatives' on protecting habitats and saving endangered species.
 - C. Have the students raise money and sponsor one of the Zoo's endangered species for the year (prices range from \$25 and up). Call Sponsor an Animal at (414) 258-2333 and ask for a Sponsor an Animal brochure.
3. Have students research their favorite endangered species and write an essay about what they can do to help counter the problems facing this animal.
4. Expand your students' knowledge by focusing on Wisconsin Endangered Species. Ask the students if they can name an animal that lives in Wisconsin that is on the endangered species list. Someone may answer the wolf. Explain to the students that there are other animals that are endangered. Show a list of endangered species of Wisconsin. Point out that there are endangered reptiles, birds, mammals, fish, invertebrates and plants. Some animals, like the bald eagle, were once endangered but have recovered to the point that they are no longer officially "endangered" in the state. In Wisconsin, the bald eagle is protected -- meaning its population is okay but needs to be monitored.
5. Using the Wisconsin Endangered Species list, have your students work in groups to research and report on a number of endangered animals and plants. A good source for information is: Bureau of Endangered Resources, P.O. Box 7921, Madison, WI 53707, (608) 266-7021. The Department of Natural Resources has an informative Web site: <http://www.dnr.state.wi.us/>.
6. If your students do all the work for #5, why not have them organize a school-wide "Wisconsin Endangered Species" week? Below are some ideas and suggestions to get them started:

Endangered Species Display

Have the students design and make a three-dimensional display. This could be done using refrigerator packaging boxes and paint. The display could include some cutouts of the endangered species and their habitats.

Develop a presentation for other classes

Have students use their research information and develop a presentation to give to other classes. Help the students create visual aids to use in their presentations.

LIST OF WISCONSIN'S ENDANGERED SPECIES

MAMMALS

Canada lynx
Pine marten

BIRDS

Piping plover
Trumpeter swan
Yellow-throated warbler
Peregrine falcon
Worm-eating warbler
Loggerhead shrike
Caspian tern
Forster's tern
Common tern
Bewick's wren
Barn owl

REPTILES & AMPHIBIANS

Blanchard's cricket frog
Slender glass lizard
Queen snake
Massasauga snake
Ornate box turtle
Western ribbon snake
Northern ribbon snake

FISH

Skipjack herring
Crystal darter
Bluntnose darter
Starhead topminnow
Gravel chub
Pallid shiner
Striped shiner
Slender madtom
Goldeye

INSECTS

Pecatonica river mayfly
Flat-headed mayfly
Northern blue butterfly
Giant carrion beetle
Powesheik skipper
Extra-striped snaketail dragonfly
Pygmy snaketail dragonfly
Silphium borer moth
Phlox moth
Knobel's riffle beetle

SNAILS

Hubricht's vertigo
Occult vertigo

MUSSELS

Winged mapleleaf
Spectacle case
Purple wartyback
Butterfly
Elephant ear
Snuffbox
Ebony shell
Higgins' eye pearly mussel
Yellow & slough sandshell
Bullhead
Rainbow shell

PLANTS

Carolina anemone
Hudson Bay anemone
Large-leaved sandwort
Lake cress
Purple milkweed
Green spleenwort
Alpine milk vetch
Prairie plum
Cooper's milk vetch
Moonwort
Goblin fern
Floating marsh marigold
Wild hyacinth
Crow-spur sedge
Hop-like sedge
Intermediate sedge
Brook grass
Stoneroot
Hemlock-parsley
Beak grass
Lanceolate whitlow-cress
Angle-stemmed spikerush
Harbinger-of-spring
Chestnut sedge
Umbrella sedge

PLANTS (CONT.)

Pale false foxglove
Bog rush
Prairie bush clover
Dotted blazing star
Auricled twayblade
Smith melic grass
Fassett's locoweed
Small-flowered grass-of-parnassus
Smooth phlox
Butterwort
Heart-leaved Plantain
Prairie white-fringed orchid
Pink milkwort
Spotted pondweed
Rough white lettuce
Great white lettuce
Pine-drops
Small shinleaf
Seaside crowfoot
Small yellow water crowfoot
Lapland rosebay
Wild petunia
Sand dune willow
Tussock bulrush
Netted nut-rush
Small skullcap
Selago-like spikemoss
Blue-stemmed goldenrod
Lake Huron tansy
Hairy meadow parsnip
Foamflower
Dwarf bilberry
Mountain cranberry
Squashberry
Sand violet
Northern commandra

ZOO TOUR OPTIONS

You will be visiting the following areas (in any order you choose). The Rain Forest self-guided tour may also be of use to focus on the diversity and dynamics of life (and death) in the tropics.

Apes of Africa Exhibit - this exhibit was a major financial commitment by the Zoo and Zoological Society to conserve two great apes and to teach the public about endangered species. Ten million dollars were spent on this modern facility. Each year between \$50,000 and \$100,000 is spent for animal care and study of these very endangered species (lowland gorilla and bonobo). Conserving an endangered species is a worthwhile cause, but as you can see it can be expensive.

Primates of the World – exhibit signs include strong messages concerning the worldwide decimation of the tropical rain forests and primate populations.

Aviary - Highlights the stresses animals face from loss of habitat, pet trade and introduction of alien species. Several of the endangered birds in the Aviary are found on islands, so factors affecting islands can be discussed.

Feline Building - Destruction of habitat and poaching can be talked about in this facility.

Make copies of the Endangered Species Exploration #1 or #2 pages. Have the students visit the areas and complete the questions.

Answers to the Zoo Tour for Endangered Species Exploration #1:

1. Marsh, swamp, bog, wet meadow, prairie potholes, etc. Wetlands absorb pollutants from the air, reduce flooding and shoreline erosion, and act as natural groundwater reservoirs.
2. They provide; oxygen, protect topsoil, collect and gradually reduce rainwater, provide resources.
3. (1) don't buy products made of tropical woods, (2) join conservation groups (3) don't have an exotic pet (4) ask questions about the origin of exotic plants like orchids; if they were taken from the wild, don't buy them.
4. Overgrazing by cattle and drought
5. Brown tree snake, eliminated from Guam the rail, kingfisher and many other animals.
6. Animals have no way to escape danger and often lack defenses.
7. Education of their own people and conservation of gorillas in protected reserves.
8. Logging, illegal hunting -- killed for food
9. 1933
10. Mandrill - W. Equatorial Africa, rainforest, cutting of forest
11. Golden Lion Tamarin - Brazil, rainforest, rainforest destruction
Spider Monkey - S. Mexico & S. American rainforest; used as food & rainforest destruction
Orangutan - Borneo & Sumatra, rainforest, rainforest destruction & illegal pet trade
Siamang - Sumatra & Malaysia, rainforest, logging and agriculture
12. All except Lions: Jaguar, Snow Leopard, Amur Tiger, and Cheetah
13. To ensure a viable breeding population and for long-term conservation by animal management
14. Loss of habitat, hunting

ENDANGERED SPECIES EXPLORATION #1

Visit the following areas. Investigate by observation and reading the signs to discover the answers. Many questions have more than one answer.

At the Mahler Family Aviary

Area: Wetland Hall (free flight room)

1. Wetlands are called what other names? Why is it important to preserve wetlands?

Area: Tropical Rain Forests Hall (just beyond ropes at exit to free flight room)

2. Why are rainforests important?

3. What are four specific things you can do to help conserve rainforests?

Area: African Savanna Exhibit (sand floor exhibits)

4. Why are some areas of Africa's grasslands turning into deserts?

Area: Island Exhibits (last three exhibits in building)

5. What is the name of one introduced species and what problems has it caused?

6. What is one-reason that island animals can become extinct quicker than mainland animals?

At the Stearns Family Apes of Africa

7. What are two steps that people in African countries have taken to help conserve gorillas?

8. What are the major human threats to bonobos?

9. In what year were bonobos first recognized as a species? _____

At Primates of the World

10. Complete the chart for each of the following endangered primates.

Common name	Country	Habitat	One reason for endangerment
Golden Lion Tamarin	_____	_____	_____
Spider Monkey	_____	_____	_____
Orangutan	_____	_____	_____
Siamang	_____	_____	_____

At the Florence Mila Borchert Big Cat Country

11. How many of the cats in this building are endangered?

12. What is the purpose of a Species Survival Plan (SSP)?

13. What are two reasons many wild felines are endangered?

Endangered Species Exploration #2

Name(s) of the person or team completing this report: _____, _____,
_____.

What is the definition of endangered species?

What is the definition of threatened species?

Find an endangered species in each of the exhibit areas listed and complete the following endangered species reports:

In Apes of Africa find one endangered ape.

Common Name _____

Scientific name _____

Why is the animal endangered or threatened? _____

Which country or continent is the animal's natural home? _____

Complete a simple sketch of the animal:



Other interesting information on the animal:

In Primates of the World find one endangered primate.

Common Name _____

Scientific name _____

Why is the animal endangered or threatened? _____

Which country or continent is the animal's natural home? _____

Complete a simple sketch of the animal:



Other interesting information on the animal:

In the Mahler Family Aviary find one endangered bird.

Common Name _____

Scientific name _____

Why is the animal endangered or threatened? _____

Which country or continent is the animal's natural home? _____

Complete a simple sketch of the animal:



Other interesting information on the animal:

In the Aquatic & Reptile Center find one ecosystem that is threatened by human activity.

Ecosystem/habitat name _____

Why is the ecosystem and the animals in it endangered or threatened? _____

Which country or continent is the habitat found in? _____

Complete a simple sketch of the ecosystem/habitat and some of the animals living in it:

How might the decline or complete loss of this animal habitat affect people living nearby?

How might the decline or complete loss of this animal habitat affect people living far away, but in the same country?

How do you feel about animals or their homes becoming threatened or endangered?

In the Florence Mila Borchert Big Cat Country building find an endangered feline.

Common Name _____

Scientific name _____

Why is the animal endangered or threatened? _____

Which country or continent is the animal's natural home? _____

Complete a simple sketch of the animal:



Other interesting information on the animal: