

# Endangered Species and Habitat

## Sierra Club Plan for Species and Ecosystem Protection:

- **Promote the Conservation of Entire Ecosystems:** by preventing the destruction and fragmentation of ecosystems, the decline of species can be halted.
- **Improve Federal Programs to Protect Endangered Species:** strengthen species protection by promoting recovery, designating critical habitat, and providing adequate funding.
- **Eliminate Harmful Land Management Policies:** end subsidies to logging, mining, and grazing industries to benefit taxpayers and the environment.

Whether it's a recreational fisherman casting for a coho salmon, a day hiker staring in awe at a grizzly bear, or a child watching as our nation's majestic symbol the bald eagle soars overhead, Americans appreciate the rich abundance of wildlife with which our nation was blessed. They want to conserve plants, fish and other wildlife and help restore those that are threatened or endangered. The wildlife with which we share our country are not only sources of beauty and enjoyment; they are also integral to our strength and survival. As species are lost, we threaten the very natural processes on which our quality of life depends.

The ongoing loss of habitat to development, suburban sprawl, population pressure, unsustainable logging and other activities are leading to declines in species on which we depend for everything from food to medicinal drugs to recreation. Since the Endangered Species Act was signed into law in 1973, many species have been saved from extinction, including the bald eagle, lady slipper orchid, humpback whale, and many other animals and plants unique to America. Unfortunately, while we have won isolated battles, we are losing the war. Our nation's efforts to conserve endangered species need to be expanded and improved upon to promote a higher quality of life for all Americans.

We are losing species at a rate not seen since the dinosaurs disappeared 65 million years ago. Harvard biologist E.O. Wilson estimates that this current rate of extinction is 10,000 times faster than what's "normal" or "natural." He projects that within the next 25 years, one of every five species will die out, unknown to our grandchildren. Extinction is a tragedy in its own right. The intrinsic value of life itself—whatever form it may take—is reason

enough to do all we can to save endangered species. But the loss of a species can have other, equally tragic consequences. In ways we may not even realize at the time, every such loss weakens the delicate "web of life" which supports our planet's biosphere. This, in turn, magnifies the threat to the survival of the human species itself.

The links are all around us—many types of wildlife, known as "indicator species," provide crucial clues to the health of entire ecosystems. When certain birds, for example, become endangered, it signals that our wetlands—vital for controlling floods and purifying our drinking water—are endangered as well. No one can predict the effects of a blow to any part of the web, so intricately are species and processes intertwined. The loss of sea otters, for instance, leads to a rise in the number of sea urchins. The growing sea urchin population, in turn, consumes greater quantities of kelp, resulting in smaller kelp forests. The forests, however, are home to many other species—some of which may not survive. Thus, an ecosystem's loss of one species can trigger a chain reaction with far-reaching consequences.

### The Endangered Species Act

Since 1973, the Endangered Species Act (ESA) has worked to conserve America's imperiled fish, wildlife, and plant resources. Since then, the conservation measures of the ESA have been credited with preventing the extinction of more than 1,200 species in the United States including the bald eagle, grizzly bear, grey wolf, and wild stocks of Pacific and Atlantic salmon. The ESA works by using the "best available science" to identify those species threatened or endangered with extinction. Protections provided by the ESA help to conserve the open spaces and clean water that species and our families depend on and enjoy, provide federal money to underfunded state wildlife conservation programs, and establish

mechanisms to help private landowners balance development with environmental protection. The Endangered Species Act is one of the many American conservation success stories that have made our nation a world leader in natural-resource management. It is a law that provides us with a lasting legacy of wildness and conserves our natural heritage, for our families and for our future.

## **Spotlight on Species**

### **Grizzly Bear**

When Lewis and Clark explored the West, as many as 100,000 grizzly bears roamed the land from the Mississippi River to the Pacific coast. By the 1920s, hunting and habitat destruction eliminated grizzly bears from 95 percent of their range. By 1970, the great bear occupied less than 2 percent of its original range. Today, confined to a few isolated mountain areas, there are fewer than 1,000 grizzlies, less than 1 percent of their original population, in the lower 48 states. In 1975, because of the dramatic decline and the uncertain status of the remaining bears, the grizzly bear population in the lower 48 states was listed as threatened under the Endangered Species Act. The protection the grizzly bear has received under the ESA is one of the reasons we have grizzly bears in the lower 48 states 20 years later. However, their future is far from secure. Biologists believe that the population numbers since delisting have not increased appreciably since they were listed.

### **Bald Eagle**

When Europeans first arrived on the North American continent, there were an estimated one-quarter to one-half million bald eagles. The first major decline in the bald eagle population probably began in the mid to late 1800s, coinciding with declines in the number of waterfowl and shorebirds and other major prey species. Direct eagle killing was also prevalent, and coupled with loss of nesting habitat, these factors reduced bald eagle numbers until the 1940s when the Bald Eagle Protection Act was enacted. Despite the protection given to eagles under this Act, between the 1950s and 1970s, the bald eagle experienced

another sharp decline in its numbers due to shooting, habitat destruction, and exposure to the pesticide DDT. In 1967 (under the law that preceded the Endangered Species Act) and 1973 (when the ESA was enacted), the bald eagle was listed as endangered in the lower 48 states, except in five states—Michigan, Minnesota, Wisconsin, Washington, and Oregon—where it was listed as threatened. Due to the protections of the ESA and the banning of the use of DDT, the bald eagle has begun to recover. In 1995, the U.S. Fish and Wildlife Service reclassified the bald eagle from endangered to a less imperiled threatened throughout all of the lower 48 states. While the eagle has made a tremendous comeback, major threats to the bald eagle at present and for the foreseeable future include destruction and degradation of habitat and environmental contamination from pesticides, lead poisoning, and mercury.

### **Wild Salmon**

For thousands of years salmon nourished the people, animals, rivers, and land of the Northwest. Salmon are the foundation of the culture, economy, and spirit of native peoples ranging from the coast to hundreds of miles inland. When Lewis and Clark's expedition was on the verge of starvation, salmon were their salvation. Now, only 1 percent of our wild salmon population is left. Salmon and steelhead fishing in the Northwest has declined as fish runs have plummeted. From 1985 to 1991, angler numbers dropped by 32 percent and fishing days were cut in half. Retail sales to salmon and steelhead anglers declined by 45 percent, severely impacting the local economy. Sportfishing not only provides families a chance to enjoy the outdoors together but is a vital part of the region's economy. Salmon face a gauntlet of barriers on their epic journey from stream to sea and back again, including killer dams, degraded spawning areas, pollution, traveling in trucks and barges, non-native predators, unnaturally warm water, and inadequate water flow.

**“In any moment of decision, the best thing you can do is the right thing. The worst thing you can do is nothing”**  
*- Theodore Roosevelt*

### **Florida Panther**

The Florida panther is one of the most endangered large mammals in the world. Reduced to a single population of an estimated 30-50 adults, the Florida panther has been isolated from other panther populations for more than a century.

Panthers are solitary creatures that require a large area for their home range. Their preferred habitat is the hardwood hammocks and pine flatwoods that are considered uplands in south Florida, though they also hunt in wetlands. Panthers formerly ranged

from Arkansas to the Carolinas and south to the Florida Everglades. Today, they exist only in the southern tip of the Florida peninsula, primarily in the Big Cypress and Everglades regions on both public and private lands. Urban and agricultural development has destroyed or degraded most of its former range.

The future remains uncertain for the Florida panther. To survive, the panther also needs the preservation of large land areas. However, with Florida experiencing one of the greatest rates of population growth in the country, panther habitat continues to be destroyed and degraded as the state attempts to accommodate its burgeoning human population.

### **Loggerhead Sea Turtle**

The loggerhead sea turtle is one of five species of marine turtles that frequent the beaches and offshore waters of the eastern United States. On July 28, 1978, the loggerhead was listed as a threatened species under the ESA due to its declining populations and the increase in the destruction of its coastal and marine habitat.

The loggerhead sea turtle inhabits the continental shelves and estuaries along the margins of the Atlantic, Pacific, and Indian Oceans. The beaches of Florida, particularly Brevard and Indian River counties, host what may be the world's largest population of loggerheads. Loggerhead populations have undoubtedly declined from historical levels because of coastline development and disturbance of beaches by human activities such as cleaning, vehicular driving,

and artificial lighting; the collection of eggs; destructive fishing practices; pollution; and the dumping of trash into the ocean. The leading cause of loggerhead mortality is drowning in shrimp and fish nets. In 1978, the National Marine Fisheries Service (NMFS) implemented a gear development program which was intended to prevent the drowning of turtles in shrimp trails. A cage-like design installed within the trawl, called a turtle excluder device (TED) was developed. Since there was a lack of widespread use of these devices on a voluntary basis, NMFS promulgated regulations requiring their use. While TED regulations are important in minimizing turtles drowning from commercial fisheries, further protection of marine habitat is extremely critical to the loggerhead's survival. Nesting beaches must continue to be protected and measures should be taken to prevent further loss and degradation of marine habitat from pollution, coastal development, channelization, and offshore oil and gas development.

### **Habitat Loss**

The number one cause of the accelerated rate at which species are being lost is the destruction and degradation of habitat. Development, suburban sprawl, pollution, logging, mining, grazing, irresponsible corporate farming, dam building and other human activities are destroying habitat that is the life support system for animals, plants and ultimately for people.

### **Forests**

Forests occupy approximately 30 percent of the world's land surface and 30 percent of the United States. In most regions, forests have more species than any other kind of ecosystem. Our nation's forests are home to many important and unique species, including the grizzly bear, coho salmon, and gray wolf. After European settlement of the U.S., forests rapidly began to disappear. By 1920, some 96 percent of the virgin forests of the northeastern and central states had been logged, with other regions not far behind. By 1980, 85

percent of the virgin forests throughout the U.S. had been destroyed, with losses estimated at 95-98 percent in the lower 48 states. Some forest types today represent only a fraction of their former abundance. Old-growth forests of the Pacific Northwest have declined by 90 percent, and longleaf pine, which once dominated the uplands of the southeastern coastal plain, have been reduced by 98 percent. As a result, more threatened and endangered species are associated with forest ecosystems than anywhere else.

### Rangelands

Rangelands in the U.S. have also significantly deteriorated. Once our nation's rangelands reached as far as the eye could see, teeming with wildlife such as bison, bears, prairie dogs, black-footed ferrets, and millions of birds. Now, more than half of the nation's grasslands, barren and savanna ecosystems, and one-quarter of our shrubland ecosystems have declined by more than 98 percent. Grasslands and savannas are considered to be the most endangered terrestrial ecosystem in the United States due to agriculture, fire suppression, overgrazing, and invasion of exotic species.

### Wetland and Aquatic Ecosystems

The loss of wetlands is also severe and one of the better documented ecosystem declines. Estimates are that more than half of the original wetlands in the United States have been destroyed. Wetlands, like rainforests, are habitat for a tremendous number of plant and animal species. For instance, wetlands are critical breeding, feeding, and overwintering grounds for waterfowl and migratory birds. Nationally, more than half of the animal and one-third of the plant species listed under the ESA are dependent on wetlands. Water quality and availability statistics are also alarming. Only 3.9 percent of the nation's streams are considered to have the maximum ability to support populations of sport fish and species of special concern. In addition, more than 98 percent of the streams in the lower 48 states are degraded enough to be

unworthy of federal designation as wild or scenic rivers.

### A Plan for the Future

To prevent the further loss of the world's biological diversity, we must take steps to preserve adequate amounts of all types of natural habitat. This means refocusing our energies on protecting the health of entire ecosystems, rather than treating problems in isolation from one another. Just as the fates of different species are inextricably linked, a breakdown in any part of an ecosystem—soil, water, air, plants, wildlife, and so on—affects every other part. We cannot adequately solve one problem while ignoring the others. One model for such a holistic approach is the Sierra Club's Critical Ecoregions Program, which aims to assure the survival of 19 endangered ecological regions in the United States and Canada. To meet this objective, Sierra Club activists will strive to identify all known threats to each region's biological integrity, and to develop comprehensive plans to combat these threats and restore ecological balance. The Critical Ecoregions Program is based on a simple premise:

To protect the species of the Earth, including our own, we need to protect the Earth. In addition to defending the integrity of laws like the Endangered Species Act, we must defend the integrity of the planet itself—by working to preserve land in its natural state, demanding sustainable use of natural resources, curbing pollution and global warming, and stabilizing world population growth. To protect our unique heritage of the animals and plants our forests, wetlands and grasslands support, we must strengthen protections for endangered species, enforce our environmental laws like the Endangered Species Act that are designed to protect species and their habitat, and end destructive land use practices. The future of our nation's unique natural heritage of fish, wildlife and plants depends upon our efforts.

## **ADDITIONAL RESOURCES**

For more information on Sierra Club's Endangered Species Programs, please visit the following websites:

*Grizzly Bear Ecosystems Project*  
[www.sierraclub.org/grizzly](http://www.sierraclub.org/grizzly)

*Columbia & Snake Rivers Campaign*  
[www.wildsalmon.org](http://www.wildsalmon.org)

*U.S. Fish & Wildlife Service: Endangered Species Program*  
[www.endangered.fws.gov](http://www.endangered.fws.gov)

*Species and Habitat Overview*  
[www.sierraclub.org/wildlands/species](http://www.sierraclub.org/wildlands/species)

*Lewis and Clark Campaign: Species at Risk*  
[www.sierraclub.org/lewisandclark/species](http://www.sierraclub.org/lewisandclark/species)

*The Endangered Species Act*  
[www.endangered.fws.gov/esa](http://www.endangered.fws.gov/esa)

**Sierra Club Member Services      85 Second St., 2nd Fl.      San Francisco, CA 94105      (415) 977-5000**  
[www.sierraclub.org](http://www.sierraclub.org)