



Why Care?

The Urgency of Saving Endangered Species



The threat to our nation's imperiled wildlife is immediate and real. We owe it to our children and grandchildren to be good stewards of the environment and leave behind a legacy of protecting endangered species and the special places they call home.

Ecological Benefits

We tend to take nature for granted and assume that ecosystem services we depend on will continue regardless of human activities. But when species become endangered, it means that the health of our ecosystem is deteriorating. Some of the services nature provides for "free" include:

- * Producing raw materials, such as food, timber and building materials, non-timber forest products, fodder, genetic resources, medicines, and dyes
- * Purifying and regulating water
- * Absorbing and decomposing wastes
- * Cycling nutrients
- * Creating and maintaining soils
- * Controlling pollination and pests
- * Regulating local and global climates

Biodiversity Under Attack

- * As of 2005, the NatureServe database listed more than 9,000 -- or approximately one-third -- of the United States' native species as being at risk of extinction.
- * At the beginning of 2003, 1,260 species in the U.S. were listed as endangered or threatened. Of these, 517 are animals and 743 are plants.
- * Nearly 70 percent of the nation's freshwater mussel species and over half the nation's crayfish populations are at risk due to human activity.
- * 58 percent of the world's reefs and 34 percent of all fish species may be imperiled by human activity.
- * Today, extinction rates are 100 to 1,000 times higher than pre-human levels.





Medicinal Benefits

In the United States, 56 percent of the 150 most popular prescribed drugs are linked to discoveries of natural compounds found in the wild, with an annual economic value of \$80 billion. This could be the tip of the iceberg. Less than one percent of all plant species have been screened for potential pharmaceutical applications. At the current extinction rate, experts estimate that the Earth is losing one major drug every two years. A cure for cancer or AIDS may lie in a plant or animal waiting to be discovered.

* The Pacific yew, a slow-growing tree found in the ancient forests of the Pacific Northwest, was historically considered a "trash" tree that was burned after clear-cutting forests. A substance found in its bark -- now marketed as Taxol® -- was later identified and approved for the treatment of ovarian, breast, and lung cancer.

* The rosy periwinkle provides the cure for Hodgkin's disease and certain forms of leukemia. The periwinkle was on the brink of extinction due to deforestation until scientists discovered its immense value.

* Digitalis, a drug derived from the purple foxglove plant, extends the life span of an estimated three million Americans who suffer from heart disease.

Commercial Benefits

Protecting endangered species isn't just the right thing to do. It makes economic sense, too.

* \$108 billion in annual revenues would rank hunting, fishing and wildlife watching as the seventh largest corporation in America.

* Hunting, fishing and wildlife watching employ nearly as many people -- 2.6 million -- as the United States computer industry.

* Once extirpated from Yellowstone National Park, the gray wolf's reintroduction in 1995, pursuant to the Endangered Species Act, has boosted revenues in local communities by \$10 million annually. Total benefits are expected to reach \$23 million a year.



Recreation

The 2001 National and State Economic Impacts of Wildlife Watching Addendum reported that 66 million Americans spent more than \$38 billion in 2001 observing, feeding, or photographing wildlife. Moreover, each dollar spent on wildlife-related recreation activities supports about \$1.50 of additional economic activity. All told, over one million jobs are dependent upon wildlife recreation.

Tourism

* America's national parks hosted 280 million recreational visitors in 2001. These visitors spent an estimated \$10.6 billion in the communities surrounding the parks. That level of spending supported 212,000 tourism-related jobs.

* According to a 1999 estimate by the Travel Industry Association of America, National Park Service visitors' spending accounts for 3.1 percent of all travel spending, excluding transportation costs. According to the same report, visiting national parks is the second most popular trip activity among American travelers.

* In 1998, the World Tourism Organization reported that nature-related tourism accounts for approximately 20 percent of all international travel.



Agriculture

Of the estimated 30,000 edible plants in the world, we depend on only 20 species to provide 90 percent of the world's food supply, and just three -- rice, corn, and wheat -- provide more than half of that supply. At least one third of agricultural crops depend on insect and other animal pollinators for their reproduction. The crops and the pollinator species are tightly dependent on each other, and our food supply depends on the health of these pollinators.

Allowing agricultural crops to become too genetically similar is dangerous -- a single blight could wipe out millions of acres of crops. The key to avoiding such a catastrophe is genetic diversity. By preserving non-domesticated plant species, we maintain a genetic reservoir that we can use in the future to breed new pest-and-disease-resistant crops.



Commercial Salmon Fishing

Commercial salmon fishing once provided over 60,000 jobs and \$1.25 billion in revenue to Northern California and the Pacific Northwest. Over the past 20 years, salmon populations have severely declined because of dams, clear-cutting, and overgrazing along streams.



Some people say that fish farms (also called aquaculture) are the answer, but fish farms do nothing to help the problem of habitat destruction. In fact, fish farms create their own set of environmental problems:

- * **Interactions with wild fish:** If farmed fish escape and interact with wild populations, they will not only compete for the same resources, but may interbreed and alter the overall genetic diversity of wild populations.
- * **Genetically engineered salmon:** It is likely that salmon farms may raise genetically engineered salmon in the near future. If these genetically modified fish escape from farm facilities and interbreed with wild salmon, the genetic strength of wild populations could decrease.
- * **Wild fish for feed:** Wild-caught fish are converted to meal and oils in order to feed farm-raised fish. This means that fish farms don't reduce pressure on commercial fisheries. They contribute to it! It requires 3 pounds of wild-caught fish to produce just one pound of farm-raised salmon.
- * **Pollution:** Large amounts of waste produced by crowded salmon pens contribute to reduced water quality conditions that are damaging for both the farmed fish and the ecosystem.
- * **Disease:** Disease is prominent in fish farms due to the densely packed conditions of the pens. There are serious concerns about both disease transfer to wild fish and the use of antibiotics in farmed fish.



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Aesthetic and Spiritual Benefits

Beyond the ecological and economic benefits of biodiversity, most people feel an innate connection with nature. Many find nature soothing and rejuvenating, something that's difficult to put a price on. Our challenge is to recognize this innate connection with nature and to reestablish ourselves as part of a healthy global ecosystem.

Noted Canadian conservationist David Suzuki describes this challenge well, writing:

"I am often asked, 'What is the most urgent environmental problem confronting us?' My answer is the human mind, the beliefs and values it clings to. Where once we understood that we are dependent on and interconnected with the rest of nature, the modern mentality believes that we have escaped this reality. Our big-city lifestyles, the fragmented explosion of information, the very nature of scientific reductionism, and the assumptions underlying modern economics all shatter the sense of interconnectedness and blind us to the consequences of our actions. Our most urgent challenge, therefore, is to rediscover our place in the natural world."