

## LECTURE TRANSCRIPT

### ENDANGERED SPECIES

Throughout the history of the earth, millions of animal and plant species have disappeared. Most of these species disappeared, or became extinct, because of natural causes such as climatic changes due to global warming or environmental disasters, like an asteroid hitting the earth or earthquakes. What is different today is that most species that are in danger of becoming extinct are not endangered because of natural causes but because of human activity. Today, we will be looking at the reasons that many plants and animals are endangered and how these reasons, or causes, are related to human activity.

The single most important cause of endangered species today is the destruction of habitat which is the natural home of a plant or animal. Most animals and plants are adapted to live and reproduce in a specific environment, or habitat. They cannot survive if they lose the specific habitat that they are adapted to live and reproduce in.

There are many ways that human activity destroys habitat. However, people mostly destroy the habitat to create residential areas for themselves. For instance, forests, which provide habitat to many plants and animals, are cleared in order to build buildings for people to live in. Land is also cleared to prepare it for farmers to grow crops on. Many areas which provide habitat to many animal and plant species are often filled in, also to provide land for agriculture. In addition, people build dams on rivers in order to produce electrical power. So, clearing forests and lands and building dams result in the destruction of habitats that many plants and animals need to live and reproduce in.

Closely related to the destruction of habitat is the degradation of habitat, which also endangers many species. What I mean by degradation is that habitat is not totally destroyed but it gets worse. Some examples of manmade causes that harm habitat are oil spills, water pollution, and acid rain. You probably have seen pictures in newspapers or on TV of dead or dying marine animals and birds that are covered with oil after an oil tanker accident. Human beings also cause water pollution, which endangers the survival of many fish and marine animals. Acid rain, which results from people burning fossil fuels, also harms many species of fish and many species of trees. To sum up, some of the things that are related to human activity that result in the degradation of the environment are oil spills, water pollution, and acid rain.

Illegal wildlife trade is another cause of endangered species. Although many governments have passed laws protecting endangered species, many animals are still illegally hunted. Some people hunt these animals for food. Sometimes people hunt animals such as chimpanzees to sell to zoos for people to look at or for medical experiments. Some beautiful birds, such as some species of parrots, are in danger of extinction because so many are captured to be sold as pets to people all over the world. However, people mostly hunt these animals only for specific parts of their bodies. For example, some species of animals such as

tigers are illegally hunted for their furs. Elephants, which are the biggest land animals in the world and an endangered species, are often killed for their hides and tusks. These elephant hides and tusks are used to make souvenirs and works of art to sell to tourists and art collectors. So, since there are a lot of people who want to make money easily, animals are mostly hunted because of specific parts of their bodies.

The third major cause of many species becoming endangered is overexploitation. People have always exploited, or used, plants and animals, and will, no doubt, continue to do so. It is only when people exploit animals and plants extensively that they become endangered. Some animals have already been hunted to extinction for food and sometimes for sport. Let me give you one well-known example—the passenger pigeon in the United States. Passenger pigeons were once so plentiful that people said they darkened the sky for hours, even days, when they flew over the land. There were 3.5 billion passenger pigeons in the United States in the 18<sup>th</sup> century. Since the number was 3.5 billion, many people thought that the passenger pigeon could never disappear, but, in reality, they became extinct at the beginning of the 20<sup>th</sup> century. They became extinct as a result of over hunting, partly for food but mostly for sport. Today, some fish, like the cod, which is an important source of food for people in many parts of the world, have been over fished. As a result, cod are in danger of becoming extinct. At one time cod, like passenger pigeons, were very plentiful, and it seemed they could never be gone. And it's not just animal species like the codfish that are in danger of becoming extinct. According to a recent article in the *New Scientist*, the Brazil nut tree, a very important source of nuts for both animals and people, is endangered due to overharvesting of the nuts.

The fourth and final reason that some species today are endangered has to do with competition that is directly related to human activity. As you know, most animal and plant species have to compete with other species in their habitat for food, water, and any other resources they both need. This is usually natural, that is, not related to human activity. However, some animal and plant species today also face competition that is directly related to human activity. There are two kinds of competition that animal and plant species can face that is related to human activity. One has to do with domestic animals and the other has to do with what is called "introduced" species. Let's discuss competition with domestic animals first. I'm sure you are all familiar with most domestic animals such as cattle, horses, sheep, goats, and so forth. But did you know that these domestic animals can be a threat to wild, that is, non-domestic, animals? The first reason is because these domestic animals compete for habitat with wild animals. And, in addition, the people who own these domestic animals often hunt, trap, and poison wild animals in order to protect their livestock. The wolf is an example of an animal that is widely hunted to near extinction to protect domestic animals. People kill wolves to protect their domestic animals. So, domestic animals threaten wild animals.

Another serious threat to some species is competition with introduced species, that is, plants or animals that are introduced, or brought, by humans into a new habitat, either on purpose or by accident. Take, for example, the introduction of a species of rabbit into Australia. In the 19th century, Europeans purposely introduced a species of European rabbit into Australia so they could hunt them for sport. Unfortunately, this animal has caused great damage to the habitat of many native animals and plants of Australia. Another introduced species, the brown tree snake, was accidentally introduced into the island of Guam in the late 1940s. These snakes accidentally rode along on military cargo planes that landed there. Since that time, the brown tree snake has destroyed a large part of the bird population of Guam.

Let me conclude by saying that the relationship of all living plants and animals is complex and interdependent. The destruction of one animal or plant species can threaten the survival of other species of animals and plants. Human beings are part of the natural world and they might also, one day, become an endangered species themselves. Because the four major causes of endangered species today are largely the result of human activity, only human beings can change the situation. Time is running out for many endangered plant and animal species.