**Biodiversity**

**Section 3, The Future of the Biodiversity**

**Saving Species One at a Time**

* Methods to preserve individual species often involve **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** the species in captivity.

**Captive-Breeding Programs**

* Wildlife experts may attempt to restore the population of a species through **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.
* These programs involve breeding species in **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**, with the hopes of reintroducing populations to their natural habitats.
* This type of program has been used successfully with the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**, for example. But the question remains whether or not these restored populations will ever reproduce in the wild.

**Preserving Genetic Material**

* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** is hereditary material (chromosomes and genes) that is usually contained in the protoplasm of germ cells and may be stored as seeds, sperm, eggs, or pure DNA.

**More Study Needed**

* Also, small populations are **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** to infectious diseases and genetic disorders caused by inbreeding.

**Preserving Habitats and Ecosystems**

* The most effective way to save species is to **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** their habitats.
* Therefore, protecting the habitats of endangered and threatened species often means **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** large areas.

**Conservation Strategies**

* One strategy is to **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** areas of native habitat that can be preserved, restored, and linked into large networks.
* Another promising strategy is to **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** products that have been harvested with sustainable practices.

**Legal Protection for Species**

* The **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** is designed to protect any plant or animal species in danger of extinction.

**U.S. Laws**

* Under the first provision of the Endangered Species Act, the U.S. Fish and Wildlife Service (USFWS) must **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** a list of all endangered and threatened species in the United States.
* As of 2002, **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** species of plants and animals were listed.
* The second main provision of the act **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** listed species from human harm.
* The third provision **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** the federal government from carrying out any project that jeopardizes a listed species.

**Recovery Plans**

* Under the fourth main provision of the Endangered Species Act, the USFWS must **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** a species recovery plan for each listed species.

**Habitat Conservation Plans**

* A **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** is a land-use plan that attempts to protect threatened or endangered species across a given area by allowing some tradeoffs between harm to the species and additional conservation commitments among cooperating parties.

**International Cooperation**

* At the global level, the International Union for the Conservation of Nature and Natural Resources **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** facilitates efforts to protect species and habitats.
* The IUCN publishes ***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** of species in danger of extinction around the world, advises governments on ways to manage their natural resources, and works with groups like the World Wildlife Fund to sponsor projects such as attempting to stop poaching in Uganda.

**International Trade and Poaching**

* One product of the IUCN has been an international treaty called **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**(the Convention on International Trade in Endangered Species).
* The CITES treaty was the first effective effort to **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** the slaughter of African elephants being killed by poachers who would then sell the ivory tusks.

**The Biodiversity Treaty**

* One of the most ambitious efforts to tackle environmental issues on a worldwide scale was the United Nations Conference on Environment and Development, also known as the first ***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***. An important result of the Earth Summit was the Biodiversity Treaty.
* The **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** is an international agreement aimed at strengthening national control and preservation of biological resources.
* The treaty’s goals are to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ biodiversity and ensure the sustainable and fair use of genetic resources in all countries.