Saving Species Activity

**Instructions:**

In the following Activity, you and your group will need to make a decision about a conservation issue.

Use scientific evidence and reasoning to support your decision

Be aware of how your own values, the values of your group, and the values of the community play into your decision.

**The scenario:**

You and your team work for a conservation organization (Name your organization). You have recently applied for a grant to help save four endangered species around the world. Unfortunately, the grant only gave you enough money to put towards one of these species.

As a group, you must decide which of the four species you will focus on. You must choose a species to save and be able to explain your decision. Include in your explanation the reasons you chose that species and the reasons you did not choose the other species. You will be creating a presentation at the end for the activity and presenting it in class. You will also be required to create rebuttals for an argumentation session.

**Things to Consider:**

* Habitat of the species
* Biological facts
* Ecosystem role
* Value to local and global community
* Human/wildlife conflicts
* Amount of time and effort it will take for a successful conservation program
* Risk involved (what are the chances it will go extinct despite your efforts?)
* Reasons for decline

**1st Task**: Find 10 additional but applicable facts for each species.

**2nd Task**: Create a name for your organization.

**3rd Task**: Choose a species to save and write a claim.

**4th Task**: Identify evidence to support your claim.

**5th Task**: Write your reasoning.

**6th Task**: Create rebuttals for each species.

**7th Task**: Create presentation.

**8th Task**: Presentation.

**9th Task**: Argumentation Session.

**The species:**

California Condor:

* Critically Endangered –There are 268 individuals in the wild as of 2015 (captive population is an additional 167 birds
* This species relies on conservation efforts for survival
* In 1987, all wild birds were taken into captivity and put into a captive breeding program. Many current wild birds have been reproduced, although some have been producing offspring at the reintroduction sites
* Largest North American bird with a wingspan up to 9.8 feet
* Some Native Americans considered these birds sacred
* These birds are highly intelligent and engage in play behavior
* Plays a scavenging role in the ecosystem. Can eat 3-4 pounds of carrion a day (and then may not eat for a couple of days).
* Captive breeding involves paying close attention to which birds are bred together to maintain as much genetic diversity as possible
* They are long lived (up to 60 years old) and reach maturity between 5 and 6
* Threatened by: habitat loss, pollution, loss of prey populations, collisions with telephone wires, poisoning
* Lead poisoning is the key threat as ingest lead shot from discarded carcasses
* Lead ammunition is being banned in certain areas of the California Condor range. However, they can travel very far distances (up to 150 miles/day

**Additional facts**

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Siberian (Amur) Tiger

* Endangered. ~ 500 remaining in the wild but population seems stable.
* Largest Cat in the world (over 600 pounds)
* One of 6 extant subspecies of tigers. (3 subspecies are already extinct)
* Threatened by hunting and habitat loss
* Largest un-fragmented tiger population (they have large habitat areas still available to them compared to other tiger species)
* Habitat protection efforts for tigers can benefit other species
* Aesthetic and symbolic importance
* Important ecosystem role as top predator
* 72-83% of tiger mortality is caused by humans, mostly through poaching.
* For successful conservation, habitat and food source needs to be protected and poaching needs to decline.
* They are not considered their own species, merely a subspecies of tiger.
* Tiger parts are used in traditional medicine
* Some human conflicts if tigers go after livestock. Uncommon for tigers to show aggression to humans, but still a potential threat

**Additional facts**

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Chinese Giant Salamander

* Critically endangered, 80% decline since 1960
* Largest amphibian in the world (can grow up to 1.8 m or 5.9 feet long)
* Threats include habitat destruction, unregulated harvesting and disease
* Absorbs oxygen through skin, no gills. Because of this, pollution can also be a threat, although there is a lack of research about this.
* Flagship species for China freshwater river systems
* Efforts to conserve this species will aid the entire regions habitats, biodiversity, and freshwater systems
* Important for stream ecosystem in native region.
* Evolutionarily distinct: few close relatives
* Poached due to the meat being a delicacy in the region
* Farming of salamanders is important for economy
* Diseases start in farms and can spread to wild populations
* Wild populations are fragmented which may lead to loss of genetic diversity

**Additional facts**

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Leatherback Turtle

* Globally listed as vulnerable by IUCN, however, there are several subpopulations that are critically endangered.
* Some populations are increasing or stable (Atlantic) where others are decreasing (Pacific). Those that are increasing are only doing so due to successful conservation actions.
* Largest sea turtle species. Weight ranges from 600-1500 pounds
* Highly migratory
* Largest range of any sea turtle
* Important predators for jellyfish. They keep the jellyfish populations in check.
* Important economic resource from eco-tourism
* Sea turtles are hunted and eggs are gathered for food. Especially in low income areas
* There is not much data available for several subpopulations
* Due to the fact that they spend most of their time in water and migrate great distances, it is hard to get population counts (especially of males. Females can be counted at nest sites)
* Threatened by habitat loss and degradation (especially in coastal nesting areas), poaching, presence of lights near nests, marine debris such as plastics and fishing gear, climate change

**Additional facts**

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Saving Species Scientific Explanation and Argumentation

**Claim:** Which endangered Species should the money go towards?

**Evidence:** What facts did you use to come to your decision?

**Reasoning:** How does the evidence support your claim? What is the importance of the evidence and how does that lead to the claim you chose?

**Argumentation**: Why did you not choose the other species? What makes this the best choice over the others? You must have 3 rebuttals for each species.