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Conservation Efforts and Ethics

The world's ecosystems are in danger, mainly because of human interactions with the environment. Animals and plants, both threatened and not, play an important role in the world, and when one species suffers, so do the rest. Humans have an obligation to attempt to conserve that which we destroy, and we have tried many methods, sometimes successful, sometimes not. The effectiveness of our efforts tend to rely on money, and the ethicalness of our efforts tend to rely on public interests. Many of these efforts tend to make an effort to capitalize from the conservation itself, and as seen with zoos and aquariums, are arguably unethical because of it.

A prime example of counterproductive conservation can be seen in most zoos. Although most Americans enjoy visiting a zoo to view the exotic and strange animals that they would not otherwise get to see, these zoos are a poor example of what these animals would behave like in their natural environments. Zoos, despite their acclaimed educational profits, tend to promote excessive stereotypical behavior from the displayed animals, placed into small environments that represent only a small portion of their natural habitat, if at all. (David Hancocks, *The Future and Ethics of Zoos*) People who visit the zoos thus do not get the full experience of that animal's natural behavior. Animals in captivity also have a tendency to display Abnormal Repetitive Behavior (ARB). Animals with this syndrome act unnaturally as a result of captivity, as observed several times over the course of a trip to the Brookfield zoo, where animals kept in small enclosures were seen licking the walls and vents or continually pacing. This display, along with a lack of informative elements, tends to give visitors the wrong impression of that animal's overall behavior. Zoos, do, however, provide much into the preservation of endangered or wildly extinct animal preservation. Animals in the zoos are kept genetically clean through strict breeding processes to ensure genetically sound animals continue to be born. This is done through the efforts of the Species Survival Plan (SSP), which ensures that animals are bred to ensure safe genetics. It is considered the job of zoos to get wildlife that has been confiscated or donated into these gene pools. (Alfredo D Cuarón, *Further Role of Zoos*) Zoo efforts also have fruited in the successful release of animals back into their habitats after they have gone wildly extinct to ensure their continuous presence in their own ecosystems. Zoos do have a place in the present and future, but not as they originally have. It is the job of the zoos to exhibit their animals in a way that is both stimulating to the viewers and the animal itself-in an environment much like the one it would naturally be seen in, including space and plant life, much as David Hancocks suggested in his article, *The Future and Ethics of Zoos*.

However, although institutions such as zoos and aquariums have an important role in preserving animal species, they often do so to capitalize from the animals, and compromise the animals' needs at the expense of more than just the viewers' educational experience. Animals in captivity are given spaces that not only encourage stereotypical behavior, but also are much too small for the animals' needs. Many predatory animals develop for themselves large territories over their lifetime, territories that can

encompass miles. This area dwarfs the small square footage most animals are given as enclosures. Most animals are also given enclosures of similar sizes as well, despite the size of the animal. Most animals are also put into environments without much opportunity for stimulation, with simulated landscapes instead of natural live ones. Social animals that spend much of their lives in social family groups, such as elephants and orcas, are split up from their natural family groups and cast together with other animals to simulate those family groups for onlookers, a practice that can result in violence. As seen in orcas kept in aquariums, in an area of space hardly adequate for their needs, orcas kept together resort to physically harming each other with biting, tooth raking, and attacking that can result in death, as seen in the CNN documentary, *Blackfish*. Animals kept in captivity show signs of mental syndromes or psychosis, such as ARB, that they wouldn't naturally have in the wild. Animals kept in captivity should be strictly kept as they would be in the wild, with enclosures and spaces suited to their needs for space and stimulation. Social animals need to be kept within their family groups, and engaging environments should be specifically tailored to each animal's individual needs, not their stereotypical environments. If animals cannot be kept in this manner, then the question arises of if they should be kept at all. Perhaps the institution of gene banks, much like existing seed banks, should be kept until that animal could be kept in their natural manner, or the regulation of these wild animals would just have to be regulated all the harder.

The matter of what animals will be conserved, however, should remain up to the experts in the field, researchers who have dedicated their lives to studying specific details of designated ecosystems and their key inhabitants. It would then be left up to the government, wildlife agencies, and local interests to enforce the decisions of these experts as to the decisions of what species need the most protection. Zoos also would, as they do today, play a large role in the captive conservation of these animals, although with a more immediate intent to release than is held today. Modern zoos currently take donated, confiscated, or otherwise obtained endangered animals and preserve them through breeding and captivity. (Alfredo D Cuarón, *Further Role of Zoos*) It should be the job of these zoos, then, to ensure the survival of wildly extinct animals when enforcement and conservation efforts fail, and to reintroduce them into nature reserves or safer areas of their environment.

Certain ecosystems are going to require more conservation efforts than others. Certain areas of unique, specialized wildlife found in staggering varieties, more aptly called biodiversity hotspots, are comprised of sensitive ecosystems containing rare and sensitive organisms. These areas are crucial to environmental stability and maintain the world's biodiversity, (Science Applied, *How Should We Prioritize the Protection of Species Diversity*) More importantly, many species in biodiversity hotspots tend to be endangered or threatened. Isolated areas such as islands are in particular at risk as the island inhabitants go pushing into the forest to look for resources. In conserving biodiversity hotspots, maximum amounts of species are being conserved, although only the types of animals in the specific isolated areas, and not as a general mix of all the world's animals. Also, biodiversity hotspots represent a poor chunk of the total ecological value, such as areas with a lesser biodiversity that are home to only a few rare key species, such as Yellowstone National Park, or areas that provide environmental services, such as wetlands. (Science Applied, *How Should We Prioritize the Protection of Species Diversity*) These areas would also have to be taken into consideration, which is why it would be beneficial to have

specialists determine the species to be preserved within their own areas of expertise, and why the mass employment of public interest and manpower is going to be required to protect each individual area.

The needs of humans also make it important to maintain the health of the world's ecosystems, and not just for the sole preservation of biodiversity. All of the world's organisms posses a certain economic value that we rely on for income, safety, and resources. The most obvious way in which we can evaluate the economic value of an ecosystem is in the ways we capitalize from it. This can mean anything from the wood that forests provide for the logging industry to the game that hunters catch for food. Ecosystems also provide certain services for humans, such as trees in large forests, both tropical and temperate, removing excess carbon dioxide from the air through photosynthesis, or wetlands absorbing excess water from intense rainfall to prevent flooding. Each ecosystem provides its own service, and when the organisms, both plants and animals, get removed from that ecosystem, the service is lost. Another economic value that ecosystems hold is their aesthetic services. Ecotourism provides a large chunk of income in National Parks and areas home to exotic wildlife. Conservation efforts enhance the net benefits of economic value in ecosystems. For instance, regulated logging allows trees to continually grow and propagate to create more trees, which in turn provide a variety of services from removal of carbon dioxide, habitat for wildlife, and continual availability of wood for the logging businesses. Stopping the degradation of the environment is key in maintaining economic value. For example, reducing soil erosion leads to less turbid waters, increasing fishing opportunities around water ecosystems, an example of how conserving ecosystems enhances economic value. Safe and sustainable agricultural practices themselves preserve ground-water quality, air quality, species diversity, fish and wildlife habitats, and characteristics of the land. (Feather, Hellerstein, and Hansen, *Economic Evaluation of Environmental Benefits*) This also preserves the aesthetic value of the land.

However, preserving the animal life can prove to be a greater challenge. Poachers from all countries run underground trades of both goods or foreign and endangered animals, or the live animals themselves. There are several world markets, including the famed JJ's of Thailand, where the illegal animal trade continues strong, and government agencies or response teams are near powerless to stop it. Poachers plague forests when hunting for tigers, exotic birds, elephants, and other endangered animals considered valuable for such goods as their meat, ivory, and skins and other parts used for a variety of acclaimed medical uses. (CNN, *Planet in Peril*) An effort to educate locals on the value these animals could provide with ecotourism have been made, in an effort to preserve the animals by making them a source of income for locals. However, further steps will be needed to prevent poaching, efforts that are already being made by enforcement agencies and will have to continue if world biodiversity is to be preserved. It is hard to entirely stop these practices, as countries such as Chine, with its large population, believe that many endangered animals have medicinal or talismanic uses. Entire ecosystems can depend on a single animal to function in a specific way, especially seen with top predators such as tigers, which are disappearing from their habitats at an alarming rate. This can be specifically seen with the gray wolf removal and reintroduction in Yellowstone National Park. With the population gone, the amount of moose grew exponentially, and the willow population dwindled. As the wolves were reintroduced, the moos population was reduced, willows grew back, and many other animals, such as ecosystem-creating beavers, began to thrive. (CNN, *Planet in Peril*)

There is a need for conservation of the natural world, but it is time for the ways in which the world is conserved to evolve, as they already are. Zoos should be a place of natural preservation and education, not just exhibition. Experts in specific pockets of the environment should decide the importance and preservation effort dedicated to the species within their areas of study, and it is up to the government, and more importantly, the locals to preserve these organisms. Economic value must be maintained through conservation in itself, so that the ecological services provided will be there for future generations.