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# Animal Extinction and ways of Preventing the Human Role in it

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**ABSTRACT**

*Here we discusses about the causes of animal extinction. Animals are sidestepped as we tend to focus more on something that happens to our brethren. However, we also forget that what happen to our species, the human beings, it affects the animals and plants more, as they don't have the ability to think and manipulate the environment as skillfully as we do. Habitat destruction, uncontrolled hunting and trading spreading of diseases and drastically changing climates are among the prominent causes of animal extinction. We are exposed to what animals are endangered, we are exposed to how we can conserve them, but we have yet to be exposed to what causes the extinctions, which will roll the ball for further research on how to prevent them. This would be useful, as prevention is always better than cure. Animals are part of our ecosystem, not only they contribute to the ecosystem and help to balance the ecosystem, they also have many uses in our daily lives, as the source of nutrition, researches, pets and trading. But due to human's greediness, selfishness and also expand in populations, caused the population of the animals to decrease up to the point that they are in danger and eventually disappear from the surface of Earth like Dodo bird and Tasmanian Tiger.*

*Yet, this issue is ignored or sidestepped as we care more of what affect us directly, when we should know that sooner or later, as part of the mammal species, these phenomena will also happen to us. Habitat fragmentation, destruction or loss, unsustainable hunting and wildlife trade, global warming and disease are the factors that lead to animal extinction.*

## 1. Introduction

When we talk of animal extinction, we talk of a species in particular becoming extinct. So when there is an extinction of an animal we simply mean that a specific species no longer exists or have died. So when the members or individuals of a certain group die out and cease to be present in the earth's surface then we will be in order to say that extinction has taken place. It is also possible to say that an animal can be extinct when the available individuals of a certain species are not able to produce thus making it inevitable for such animals to have their offspring in future. So basically, when there is no hope or evidence that an animal can be present in the next few months or years because of inability to produce then it is extinct. Extinction does take place in living organisms, plants and animals alike. So when it takes place in animals we will refer to this as animal extinction.

In the past, there have been five great events of extinction which have shaped the earth in its cataclysmic ways. These five events have wiped almost fifty percent of life in a day in a species in the past few years. And today, we are in the sixth great extinction, Holocene event of extinction. This event started almost fifty thousand years ago.

Newler argues that, "animals become extinct when they die and no longer exist; at that death of the only existing members of the species. Extinction simply means to be away forever". The process takes place over a period of time. A species may be regarded to as functionally extinct before it is fully extinct when only a few of them exist. The existing group is for one reason or another unable to reproduce and propagate the species, hence termed as functionally extinct. The process begins from the time when the death rate is higher than the birthrate. The number of animals then slowly decreases to extinction. Newler also adds that in biology extinction is the end of a given species of animals in an ecosystem. Though not documented, scientist believe that 99.9% of the species that have existed before have so far been extinct. A certain species of animals may get extinct because it cannot survive in the changing environmental conditions; allowing only the species that are well adapted to the environment to survive. This shows that there are certain natural factors within the environment that causes extinction.

The moral problem regarding the use of animals as our resources and thus subjecting them to unbearable suffering lies with the fact that animals, especially higher animals, are capable of feeling pleasure and pain like us. Moral philosophers, the 20th century applied ethicists in particular, argue that when we take these sentient animals as human resources and inflict pain on them, we are doing —wrongll to them. With such admission the moral consideration of non-human animals has started, and as a result, we get a new branch of Applied Ethics, namely, Animal Ethics, which studies man's relation to animals from some such moral perspective. Animal ethics can be defined as a branch of applied ethics for liberating animals from unjust, unnecessary and inhuman torture. The first step to reach at the goal is to re-understand the moral issues involved in human-animal relations through knowledge and reasoning. There has been an aspect of activism too, in addition to such academic, theoretical pursuit. The principal issues here in animal ethics are: experimentation on animals, rearing and killing animals for food and for recreation pet-keeping, hunting and the like. On the theoretical

plain, these issues take some such forms, like limitation of traditional anthropocentric species morality, the moral status of non-human animals, the questions of equality, rights and justice for animals.

Humans are transforming Earth's natural landscapes so dramatically that as many as one million plant and animal species are now at risk of extinction, posing a dire threat to ecosystems that people all over the world depend on for their survival, a sweeping new United Nations assessment has concluded. Endangerment and extinction are impacting several species of animals globally. From deforestation and urbanization, to poaching, pollution, and incurable disease, many argue we humans bear some responsibility and have a moral duty to help animals from becoming endangered or extinct. Whether the research is examining illnesses or studying reproduction to assist with breeding, animal research is one avenue by which scientists are helping to protect endangered animals.

**2. Causes of animal extinction**

In the twenty first century, there have been major causes of animal extinction. These include habitat degradation in that the surrounding the life of animals is interfered with and thus become harmful for the life of the species. We find that there can be degradation to the habitat like poisoning which can directly mess up with the life of a species. It may not only affect the life but also its productivity, life span among others. Through this degradation, you find that the affected species can extinct very fast. Also, there is over-exploitation which results from the total number of individuals of a species that use the same economic resources. Animals of a given species will be struggling to fulfill its biological needs and yet the resources will not be there. This will lead to starvation to death among other causes.

Another cause of extinction can be attributed to the climate change that is human induced. Human beings have played a very big role in ensuring that the climate of the earth is not static. The climate has been changing due to various activities that they, human beings, do think they take for the sake of their lives. There is emission of many gases into the atmosphere which do interfere with the ozone layer thus exposing the earth to the dangers of the sun rays. Apart from the emission o the gases, human beings also do play a role in the desertification thus interfering with the rain cycles in the world among other possible effects of desertification to the climatic change.

Predation, completion and diseases can also cause extinction in animals. It is natural for animals to compete for resources which are scarce. We find that in the process of evolution, many animals did compete for the resources and in the process many weaker animals were extinct. The process of completion may not take place naturally, but in some cases animals are subjected to competitions by man or due natural reason. In these cases, animals do find themselves in areas that they are not fit for; the completion is very stiff and not easy to get the resources. In such cases, the animals may come to extinct.

**3. Factors of animal extinction**

**Habitat Fragmentation:** One of the main factor of animal extinction is habitat fragmentation, loss or in another word habitat loss. Research had been carried out by Bancroft and Turchin in year 2003, using a series of experiment with grain beetles, Oryzaephilus surinamensis proved that "6% out of 247 populations went extinction" when they carried out the experiment on the relationship between "habitat fragmentation and decreasing food abundance" and the result shown that these grain beetles went to extinction due to low food supplies. This result gives a suggestion that" habitat quality is more important than the habitat size itself". Not only are that, another study that was carried out by Warren, another researcher, who does research on 13 types of protest in 1996 by applying three levels of habitat destruction of microcosm. As the result, the population of the surviving species greatly declined due to the rising in habitat destruction. As we know, Tropical Rainforest consisted of many precious trees that used as the materials in industrial purpose. Not only for industrial uses, also as the habitat for variety of species.

**Unsustainable Hunting and Wildlife Trade**: Another factor that contributes to animal extinction is unsustainable hunting and wildlife trade. This happened in many countries across the world. Many animals were hunted to extinction when the aboriginal Europeans, Americans and Australians developed the "effective hunting technology". One such animals were hunted to extinction by this is the Dodo birds. Certain bird such as the Eskimo curlew went extinct when they were "relentlessly hunted by the market gunners during their migration". Some animals were caught for pet trade such as orangutan. These animals are considered exotic and were sold to the people that are interested in this kind of wildlife animal and were willing to pay for it. An example of primates that often used in this field is chimpanzees. Even though they are not yet extinct, but they are classified as the endangered species because they are not only used in research but also become the target of the bush meat hunter.

**Global Warming:** The third factor would be global warming. Mother Earth and its residence depend on the seasons for their routines and timings. Mating season, migration all of it due to the weather. With global warming, the timing of seasons is changing. Some are longer than expected, some are shorter than hoped. This bungled the biological clock of animals that are already accustomed to instinct-based timing and activities. While it seems nothing to us humans, it is consequential towards animals and plants. Global warming also affects migration of animals, hatching of eggs and distribution of animal species in the planet. There is factual evidence that global warming is tied with animal extinction. In Australia for example, White Possum is believed to be extinct as a result of global warming. The animal died because it could not withstand the high temperatures.

**Overpopulation:** Manwel and mwenda said that "overpopulation in animals stiffens the competition for food and shelter". When the population of animals is higher than the carrying capacity of a given ecosystem, there will be a shortage of resources which definitely leads to the death of some animals. Overpopulation leads to overexploitation of the existing resources. When there is overpopulation of predators, the population of the prey reduces to and becomes one of the endangered species. If the increasing population of the predators is not controlled, the prey soon becomes extinct.

**4. How to Do Your Part to Prevent Animal Extinction**

 

- ***Native plants provide food and shelter for native wildlife-*** Attracting native insects like bees and butterflies can help pollinate your plants. The spread of non-native species has greatly impacted native populations around the world. Invasive species compete with native species for resources and habitat. They can even prey on native species directly, forcing native species towards extinction.
- ***Visit a national wildlife refuge, park or other open space-*** These protected lands provide habitat to many native wildlife, birds, fish and plants. Scientists tell us the best way to protect endangered species is to protect the places where they live. Get involved by volunteering at your local nature center or wildlife refuge. Go wildlife or bird watching in nearby parks. Wildlife related recreation creates millions of jobs and supports local businesses.
- ***Learn about endangered species in your area-*** Teach your friends and family about the wonderful wildlife, birds, fish and plants that live near you. The first step to protecting endangered species is learning about how interesting and important they are. Our natural world provides us with many indispensable services including clean air and water, food and medicinal sources, commercial, aesthetic and recreational benefits.
- ***Make your home wildlife friendly-*** Secure garbage in shelters or cans with locking lids, feed pets indoors and lock pet doors at night to avoid attracting wild animals into your home. Reduce your use of water in your home and garden so that animals that live in or near water can have a better chance of survival. Disinfect bird baths often to avoid disease transmission. Place decals on windows to deter bird collisions. Millions of birds die every year because of collisions with windows. You can help reduce the number of collisions simply by placing decals on the windows in your home and office.
- ***Recycle and buy sustainable products-*** Buy recycled paper, sustainable products like bamboo and Forest Stewardship Council wood products to protect forest species. Never buy furniture made from wood from rainforests. Recycle your cell phones, because a mineral used in cell phones and other electronics is mined in gorilla habitat. Minimize your use of palm oil because forests where tigers live are being cut down to plant palm plantations.
- ***Herbicides and pesticides may keep yards looking nice but they are in fact hazardous pollutants that affect wildlife at many levels-*** Many herbicides and pesticides take a long time to degrade and build up in the soils or throughout the food chain. Predators such as hawks, owls and coyotes can be harmed if they eat poisoned animals. Some groups of animals such as amphibians are particularly vulnerable to these chemical pollutants and suffer greatly as a result of the high levels of herbicides and pesticides in their habitat.
- ***Never purchase products made from threatened or endangered species-*** Overseas trips can be exciting and fun, and everyone wants a souvenir. But sometimes the souvenirs are made from species nearing extinction. Avoid supporting the market in illegal wildlife including: tortoise-shell, ivory, coral. Also, be careful of products including fur from tigers, polar bears, sea otters and other endangered wildlife, crocodile skin, live monkeys or apes, most live birds including parrots, macaws, cockatoos and finches, some live snakes, turtles and lizards, some orchids, cacti and cycads, medicinal products made from rhinos, tiger or Asiatic black bear.
- ***Slow down when driving-*** Many animals live in developed areas and this means they must navigate a landscape full of human hazards. One of the biggest obstacles to wildlife living in developed areas is roads. Roads divide habitat and present a constant hazard to any animal attempting to cross from one side to the other. So when you're out and about, slow down and keep an eye out for wildlife.
- ***Protect wildlife habitat-*** Perhaps the greatest threat that faces many species is the widespread destruction of habitat. Scientists tell us the best way to protect endangered species is to protect the special places where they live. Wildlife must have places to find food, shelter and raise their young. Logging, oil and gas drilling, over-grazing and development all result habitat destruction. Endangered species habitat should be protected and these impacts minimized.
- ***Harassing wildlife is cruel and illegal-*** Shooting, trapping, or forcing a threatened or endangered animal into captivity is also illegal and can lead to their extinction. Don't participate in this activity, and report it as soon as you see it to your local state or federal wildlife enforcement office.

**5. Why Should We Save Endangered Animals?**

From Amur Leopards, Black Rhinos and Bornean Orangutans to Hawksbill Turtles, Vaquitas and blue fin tuna, there are many endangered animals that are at risk of extinction. What that means is that we are at risk of losing these animals completely.

***For the environment and other animals-*** Everything in nature is connected. If you remove one animal or plant it upsets the balance of nature, can change the ecosystem completely and may cause other animals to suffer. For example, bees may seem small and insignificant, but they have a huge role to play in our ecosystem – they are pollinators. This means they are responsible for the reproduction plants. Without bees, many plant species would go extinct, which would upset the entire food chain.

***For medicinal purposes -*** Many of our medicines have come from or been inspired by nature. The loss of plants and animals to extinction takes with it the potential for new cures and drugs that we have yet to discover.

**6. Importance of the Endangered Species**

**Ecological importance:** Healthy ecosystems depend on plant and animal species as their foundations. When a species becomes endangered, it is a sign that the ecosystem is slowly falling apart. Each species that is lost triggers the loss of other species within its ecosystem. Humans depend on healthy

 

ecosystems to purify our environment. Without healthy forests, grasslands, rivers, oceans and other ecosystems, we will not have clean air, water, or land. If we allow our environment to become contaminated, we risk our own health.

**Medical:** Over 50% of the 150 most prescribed medicines were originally derived from a plant or other natural product. Unfortunately, only about 5% of known plant species have been tested for medicinal uses and there are thousands of plant species that have yet to be identified. Tens of thousands of Americans die every year from illnesses for which there is no known cure. The cures for these diseases may eventually come from plants, therefore, we must protect all species before they are lost forever from nature's medicine cabinet.

**Aesthetic/Recreational:** The American tourism industry is dependent on plant and animal species and their ecosystems for their multi-billion dollar, job-intensive industry. Every year, millions of people visit natural areas in the US and participate in wildlife related activities. From woodland hikes to beach going, outdoor activities are the second most popular travel activity (Travel Industry Association of America). The U.S. Park Service logs over 200 million visitors to our National Parks every year. The local economies of these areas benefit greatly from activities associated with these visits. The preservation of our nation's biological diversity is an immensely important facet to the survival of the travel industry.

**Agricultural:** Agriculture also plays an important role in the protection of species, farmers are often seen as the original conservationists. Many farmers set aside portions of their land as wildlife habitat and also work in partnership with groups such as Trout Unlimited to restore river and stream habitats for endangered and threatened fish and reptiles. In addition, wild relatives of common crops contain important genetic material needed to maintain these crops. These relatives can be used to ensure crops are disease-resistant while providing information for developing new crops that can grow in less than adequate lands.

### 7. Top 10 Extinct Animals

Animal extinctions may be caused by natural occurrences such as climatic heating or cooling or changes in sea levels. In more modern times, however, human activity has been to blame. Habitat destruction as farming land expands and forests are cut-down is the main cause of modern extinctions, along with pollution, the introduction of alien species, and over fishing or hunting. Increasingly, however, climate change is thought to be driving extinctions.

1. ***West African Black Rhinoceros-*** The West African Black Rhinoceros was found in several countries towards the southeast region of Africa. Measuring 3-3.8 metres long and 1.4-1.7 metres in height, this rhino would have weighed 800-1,300 kg. It had two horns, one measuring 0.5-1.3 metres and the other between 2-55cm. Their diet included leafy plants and shoots. Some believe their horns had medicinal properties – though this had no grounding in scientific fact – which lead to heavy poaching. In the 1930's preservation action was taken to protect the species, but the numbers continued to decline. The last West African Black Rhino was seen in Cameroon in 2006. It was declared officially extinct in 2011.
2. ***Baiji White Dolphin-*** Baiji White Dolphin, also called the Chinese River Dolphin, can only be found in the Yangtze River in China. These mammals could grow to eight feet long and weigh up to a quarter of a ton. They relied on echolocation to navigate and hunt for pray due to their tiny eyes and very poor eyesight. Living in the Yangtze for 20 million years, their numbers declined drastically from the 1950s onwards. As China industrialised, the river was used for fishing, transportation and hydroelectricity which had a huge effect on the mammals. Although not officially recorded as extinct, no one has seen a Yangtze River Dolphin since 2002.
3. ***Pyrenean Ibex-*** One of four subspecies of the Spanish Ibex or Iberian Goat that was found in the Iberian Peninsula. The Ibex would grow to a height of 60-76cm at the shoulder and weigh 24-80 kg and fed mainly on grasses and herbs. They were thought to have numbered 50,000 historically, but by the early 1900s its numbers had fallen to fewer than 100. The exact cause of the Pyrenean Ibex's extinction is unknown; scientists believe factors included poaching and the inability to compete with other mammals for food and habitat. The last Pyrenean Ibex was killed by a falling tree in northern Spain in 2000.
4. ***Tasmanian Tiger-*** Native to Australia, Tasmania and New Guinea, the Tasmanian Tiger was a large carnivorous marsupial. Not related to tigers, the creature had the appearance of a medium-to-large-size dog (it weighed 30kg with a nose to tail length of almost 2 metres) but dark stripes gave it a tiger-like appearance. It is believed to have been hunted to extinction – this was encouraged by bounties – but human encroachment into its habitat, the introduction of dogs and disease could also have contributed. The last wild Tasmanian Tiger was killed between 1910 and 1920, with the last captive one dying in Hobart Zoo, Tasmania in 1936.
5. ***Passenger Pigeon-*** Native to North America, the Passenger or Wild Pigeon has been extinct since the early 20th century. It is estimated that between 3 and 5 billion Passenger Pigeons inhabited the US when Europeans arrived in North America, but their settlement led to mass deforestation resulting in habitat loss and a reduction in the bird population. By the 19th century pigeon meat was commercialized as a cheap food for the poor, which resulted in hunting on a massive scale. The Passenger Pigeon died out in the wild by around 1900, with the last known individual dying in captivity in 1914.
6. ***Great Auk-*** A large and flightless bird found in the North Atlantic and as far south as Northern Spain. It had an average height of 75-85 cm and weighed about 5kg. The Great Auk was a powerful swimmer which helped it to hunt underwater for food. The last colony of Auks lived on the island of Eldey and by 1835 they had all been killed. The last of these birds was killed by three men who caught it on St Kilda, Scotland in 1844. When a large storm surged, they believed that the auk was a witch and was causing the storm, so they killed it.

 

7. ***Dodo-*** An extinct flightless bird that inhabited Mauritius, the Dodo was about one metre tall and may have weighed 10–18 kg. The only account we have of the Dodo's appearance is through varied illustrations and written accounts from the 17th century so its exact appearance remains unresolved. It is presumed the bird became flightless due to the availability of abundant food sources (seeds, roots and fallen fruits) and a relative absence of predators. Dutch sailors first recorded a mention of the dodo in 1598. The bird was hunted to extinction by sailors and their domesticated animals, and invasive species. The last widely accepted sighting of a Dodo was in 1662.
8. ***Woolly Mammoth-*** An enormous mammal, believed to be closely related to the modern-day elephant. Its ancestors migrated out of Africa about 3.5 million years ago, spreading across northern Eurasia and North America. The creature was over 4 metres tall and could weigh over 6 tons. They were covered in fur and their curved tusks could easily be up to 5 metres long! The Woolly Mammoth eventually disappeared 10,000 years ago through a combination of hunting by humans and the disappearance of its habitat through climate change. The last of the isolated woolly mammoth populations is believed to have vanished from Wrangel Island in the Arctic Ocean around 1700BC.
9. ***Sabre-toothed Cat-*** Often called Sabre-toothed Tigers or Sabre-toothed Lions, they existed 55 million to 11,700 years ago. Sabre-tooth Cats were carnivores named for the elongated bladelike canine teeth, which in some species were up to 50cm long. Quite bear-like in build, they were believed to be excellent hunters and hunted animals such as sloths and mammoths. These felines could open their jaws at an angle of 120 degrees – almost twice as wide as a modern lion! It is believed the Sabre-tooth Cat's extinction may be linked to the decline and extinction of the large herbivores they hunted. Other explanations include climate change and competition with humans.
10. ***Stellers Sea Cow-*** Named after George Steller, a naturalist who discovered the creature in 1741, Stellers Sea Cow was a large herbivorous mammal. It is believed that Stellers Sea Cow which grew to at least 8-9 metres and weighed around 8-10 tons, inhabited the Near Islands, southwest of Alaska and the Commander Islands in the Bering Sea. It is believed that the mammal was tame and spent most of its time eating kelp; this, and the fact that it was unable to submerge its enormous body, is possibly what made it vulnerable to human hunters. Within 27 years of discovery by Europeans, Steller's Sea Cow was hunted to extinction.

## 8. Conclusion

It is important remember to take care of the animals we have today, and their environment. We humans are the main cause of extinction. Because of us, they lose their home just because we need to make paper, or they die because we need food. Poachers also kill endangered animals or sell them to people who have money and are willing to spend it on a rare or endangered animal. There are a lot of ways to help endangered animals today such as volunteering or donating to help build animal homes. If you want to learn more about extinct and endangered animals, check out some of these organizations: Defenders of Wildlife, Wildlife Conservation Society, Wildlife Alliance, African Wildlife Foundation, and the Animal Welfare Institute. They help endangered animals by finding them a new home, taking care of them temporarily if they are hurt. Some are dedicated to animals from a specific country.

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