

## Extinction



### Extinction

is a word which has an uncomfortable air of finality about it, rather like death! Whereas people are rarely unanimous in their definition of the word CONSERVATION, there can be no doubt that to practically everyone (including quite young children) extinction means to be wiped out and completely destroyed. To become extinct is to be gone forever. In fact the process of extinction follows this simple rule:

**"A Species Becomes Extinct when its**

**Deathrate is Continually Greater than its Birthrate".**

Extinction generally occurs under one of three headings:

### 1. Natural Extinction

This happens when a species declines in numbers gradually but steadily at the end of its evolutionary period on earth. The length of the period depends largely on the success of the species as a whole and its ability to adjust to changes in climate and vegetation and the appearance of predators or (in the case of predators) the disappearance of prey. It is worth remembering that a species dying a natural evolutionary death is nearly always replaced by new forms or groups.

## **2. Direct Extinction**

This occurs when Humans destroy animals in such numbers that they become completely exterminated and cease to exist as a species. The motivations for destruction on this scale can usually be attributed to one of the following reasons: (i) profit (and often - greed), (ii) competition with animals for food, habitat or both, or (iii) the sheer enjoyment of killing. We kill animals for their meat, oil, hides, fur, feathers, shells or eggs. We trade in live animals; often at the expense of a dwindling population in the wild state. Some animals are killed because of superstitious dread; others are killed to provide souvenirs for tourists. Animals are still being killed by trophy hunters and by those who take pleasure in dispensing death (from a safe distance).

## **3. Indirect Extinction**

Many of the species now facing imminent extinction do so not because Humans have set out to destroy them - but rather because they have stepped in the path of his "progress". Of all the causes of indirect extinction the most widespread and devastating must be the destruction of habitat.

### **Record of Destruction**

At the present time there are about 5,000 species of animals and more than 25,000 species of plants facing extinction. Some of these are already poised on the brink of completely disappearing and may well be beyond all hope of salvation now whatever attempts might be made to save them. With the human race multiplying at the rate of one million more people every six days; the destruction of tropical rain forests at the frightening rate of 50 acres per minute; and the probable loss of approximately 800 square miles of wild habitat each day to human needs - it is hardly surprising that there are so many endangered species of animals and plants.

It is interesting to look at the way in which the disappearance of animal species in ever-increasing numbers is related to the steady increase in the size of the world's human population over the past three hundred years. The figures look like this:

### **17th Century**

By the middle of the century there were about 450 million humans on earth and 7 animal species became extinct.

## **18th Century**

550 million humans on earth and 11 more species became extinct by mid-century.

## **19th Century**

By 1850 the human population had increased to 900 million and 27 species were lost.

## **20th / 21st Century**

To date there are just over 6000 million people on earth. So far this century we have lost 68 species of animals.

It is worth noting that, of the animals that became extinct during the 20th century, 64 disappeared between 1900 and 1960. Since then only four species have been lost. This may be an encouraging indication of Man's awareness of the threat to Nature in recent years and his attempts (as yet all too feeble) to repair some of the damage while there is still time to do so.

## **Activities & Projects**

Suddenly, the word EXTINCTION has not one, but several possible definitions depending upon the species being studied or discussed and the reason for its decline or extermination. As teachers will very quickly appreciate, this opens up a wide-ranging subject for class or project work of all kinds, suitable for any level of age or academic ability.

There are many absorbing activities linked with the study of extinction ranging from simple model making and artwork to detailed studies of ecosystems, or deductions concerning climatic changes which brought the Age of Reptiles to a comparatively abrupt end.

## **Case Histories**

An interesting study for both individuals and groups is the compilation of typical case histories showing why plants and animals are endangered or why they have become extinct.

These case histories could include any of the following:

### **Dodo**

(extinct)

The flightless pigeon of the Mascarene Islands.

### **Tiger**

Fifty years ago there were more than 100,000 tigers - now there are fewer than 5,000 left and the chances of survival are not good. Passenger pigeon (extinct) A classic example of direct extermination. Countless millions of these birds were killed within 30 years in North America, the last one died in 1914.

### **Quagga**

(extinct)

Wiped out by hunters -1878.

### **Rhinoceros**

Any of the five species will make an interesting study. In evolutionary decline - being accelerated by poachers who sell horn (which is attributed with magic powers).

## **Great whales**

**Man's predation on the whales from the earliest times to the present day provides scope for a very detailed and well documented study.**

## **Hawaiian goose**

(Ne-ne)

Success story. Down to last thirty survivors before Wildfowl Trust commenced rescue programme. Now increasing in numbers and released again in Hawaii.

**Remember that Humans too can become extinct, and there are already too many records of tribal extinction around the world.**

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