

# TOPIC 7: THE SIXTH EXTINCTION

## I Can...

- Describe the relative abundance of species on earth and in different environments
- Describe ongoing changes in biological diversity through extinction and extirpation of native species, and investigate the role of environmental factors in causing these changes

**Species that are “extinct” no longer exist...**



# Extinction Events

Throughout the history of our planet, there have been five major extinctions:

## **1) Ordovician-Silurian Extinction**

## **2) Late Devonian Extinction**



### **3) Permian-Triassic Extinction**



## 4) **Triassic-Jurassic Extinction**



## 5) Cretaceous-Paleogene Extinction



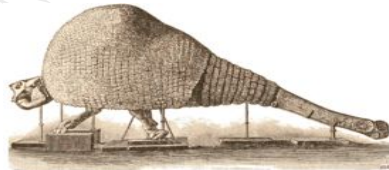
# We are currently in the middle of the sixth major extinction event...

## 6) Holocene Extinction

- Since the early 1900's, extinctions have occurred at over 100 times the background extinction rate. This is largely the result of human activity.
- The Holocene Extinction is on track to be the largest in our planet's history



The dodo bird became extinct during the mid 17th century



*Doedicurus*, a relative of the armadillo, became extinct in the mid 1800's



The black rhino became extinct in 2011



The golden toad became extinct in 1989



# Human Impact

By destroying habitats, impacting the earth's climate, hunting, and diminishing natural resources, humans have wiped out many of the species that were here before us. The current rate of extinction is nearly 70 species per day!



# Indicator Species

Certain species can be used to track the “health” of our planet: Large carnivores, such as grizzly bears and wolves, tend to be the first to start disappearing when the environment changes.



The range and abundance of large carnivores in North America has shrunk considerably, indicating high levels of ecosystem loss.