

**Conservation 1404 - Chapter 11**  
**Species Diversity**  
**Pages 222 - 237**  
**“The Least You Should Know”**

**Vocabulary**

Extinct, extant  
Endangered species  
Threatened species  
IUCN – a coalition of leading conservation groups  
Red List  
Instrumental value  
Bioprospecting  
HIPPO  
Endemic Species, e.g. island species  
Habitat fragmentation

**Concepts**

Three kinds of extinction – locally, ecologically, and biologically.  
Problems cataloging extinction

- Extinction takes a long time – hard to document
- We only know of 1.4 million of 4 to 10 million extant species
- We know little about those 1.4 million sp.

Current rate of extinction is about 100 to 10,000 times as before humans.  
Background extinction rate is 1 to 4 per million per year.

At a 1% extinction rate 20% of all species will be gone by 2030 and half by the end of the century.

Extinction is a natural process, but naturally it takes place slowly.

Reasons to be concerned about extinction:

- new species arise much more slowly than current extinction rate. It would take ~ 5 million years to replace half of the current species with new ones.
- Instrumental value – current and future economic value of organisms
- Genetic information – loss of the “library” of genetic data.
- Recreational pleasure
- Ethics

Greatest threat to a species is habitat loss, degradation, or fragmentation.  
Hunting is generally not a threat to species.

Know a little about the current extinction rate of birds.  
The problem with nonnative species, and the common examples.

