

# GLOBAL ASSESSMENT OF THE LOSS OF SPECIES

## IUCN SSC Red List of Threatened Species

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Workshop on Environment Statistics

Addis Ababa, 16-20 July 2007



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# The Red List Consortium

- IUCN SSC
- BirdLife International
- NatureServe
- Conservation International – Centre for Applied Biodiversity Science

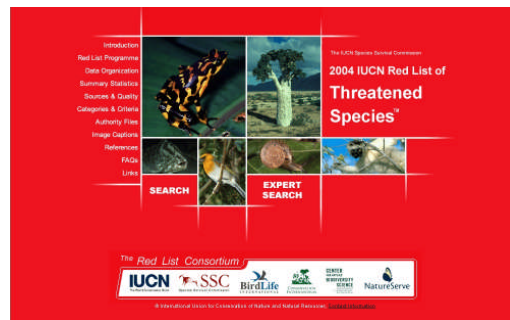


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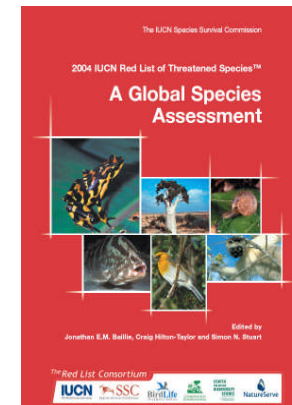
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# To achieve the 2010 Target we need to know:

- What is the overall status of biodiversity?
- At what rate is biodiversity being lost?
- Where is biodiversity being lost?
- What are the causes of decline and loss of biodiversity?



[www.iucnredlist.org](http://www.iucnredlist.org)



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# Red List Index & CBD

- Montreal, Oct 2004 (CBD AHTEG) recommended moving Red List Index to list of “indicators for immediate testing”
- Approved by SBSTTA 10, Feb 2005



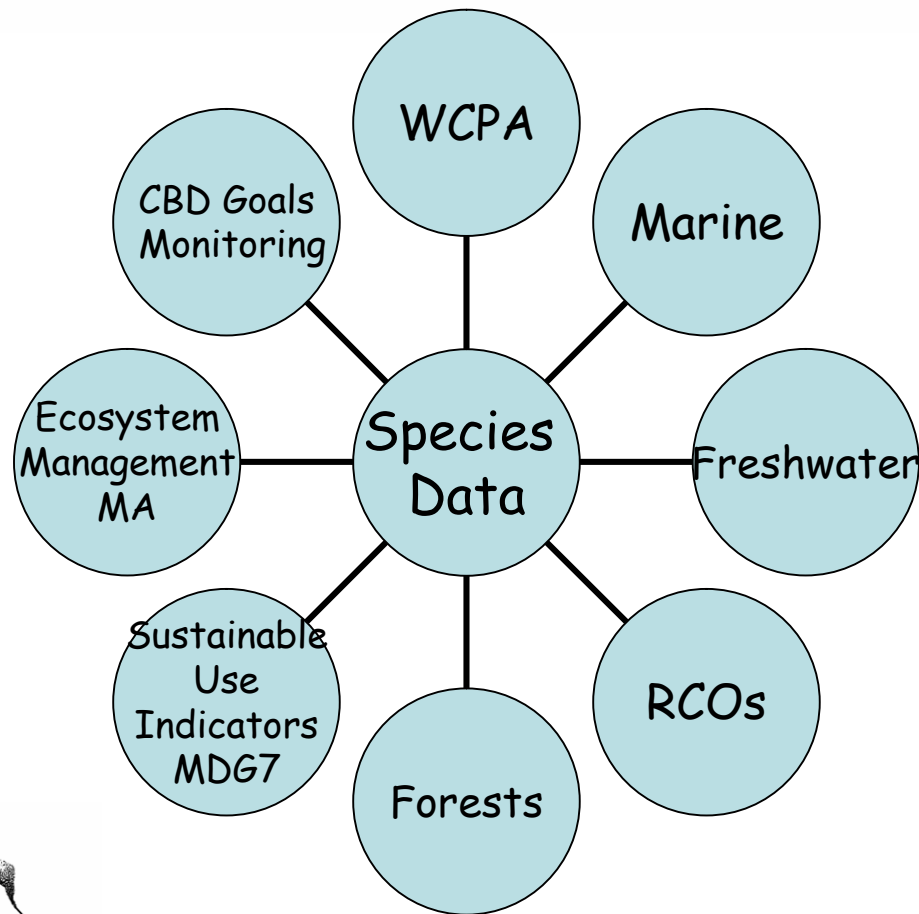
# How can we measure the rate of loss of biodiversity?

For trends in components of biodiversity,  
CBD recommended indicators for trends in:

1. Extent of biomes/habitats
2. Abundance/distribution of species
3. Threat status of species
4. Genetic diversity of domesticated animals & cultivated plants
5. Coverage of protected areas
6. Area of forest, agricultural and aquaculture ecosystems under sustainable management
7. Number and cost of alien invasions



# Species data helping to underpin a cross-sectoral World Programme



# History of the IUCN Red List

1962/3

1969

1986 IUCN  
of Threat  
Animals

Threatened  
Swall  
of the  
The IUCN

Threatened Primates  
of Africa  
The IUCN Red Data Book

IUCN Red List  
Categories

IUCN

1996 IUCN Red List of  
Threatened  
Animals

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1986

1985

1988

THE IUCN PLANT  
RED DATA BOOK

1978

1997 IUCN Red List of  
Threatened Plants

1998

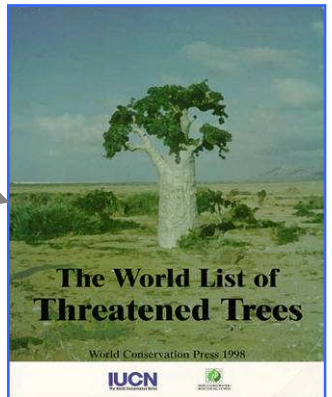
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PHILIPPINE  
RED  
DATA BOOK

BY  
WILDLIFE  
CONSERVATION  
SOCIETY OF THE  
PHILIPPINES

中国濒危动物红皮书  
CHINA RED DATA BOOK OF  
ENDANGERED ANIMALS

NAVYALIA



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# Red List Categories & Criteria

A. Declining population

B. Small distribution and decline or fluctuation

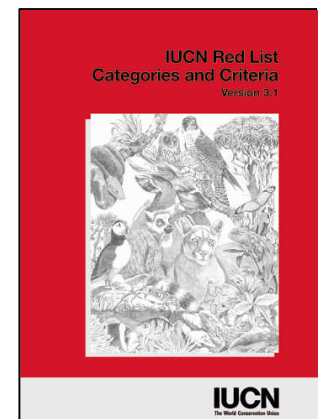
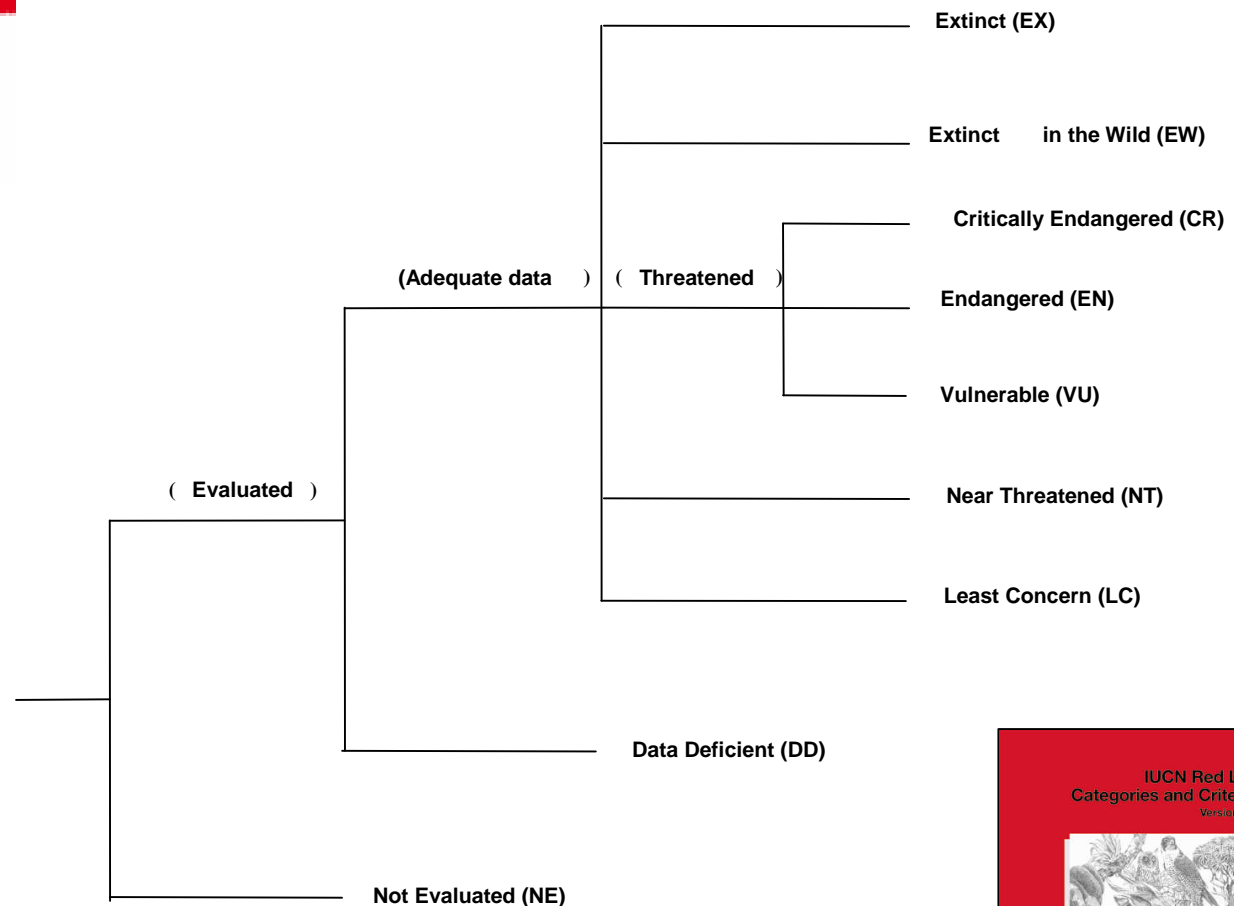
C. Small population size and decline

D. Very small or restricted

E. Quantitative analysis



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# The IUCN Red List Programme

## Goals:

- Identify and document those species most in need of conservation attention if global extinction rates are to be reduced; and
- Provide a global index of the state of degeneration of biodiversity.



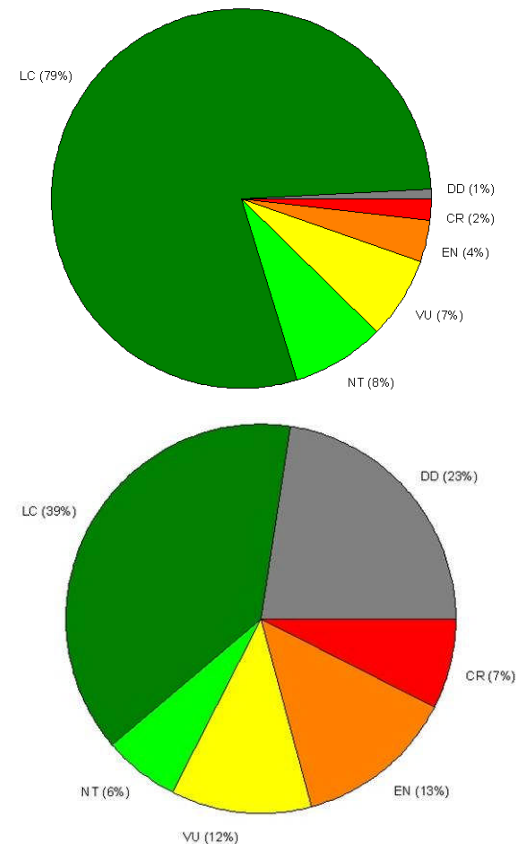
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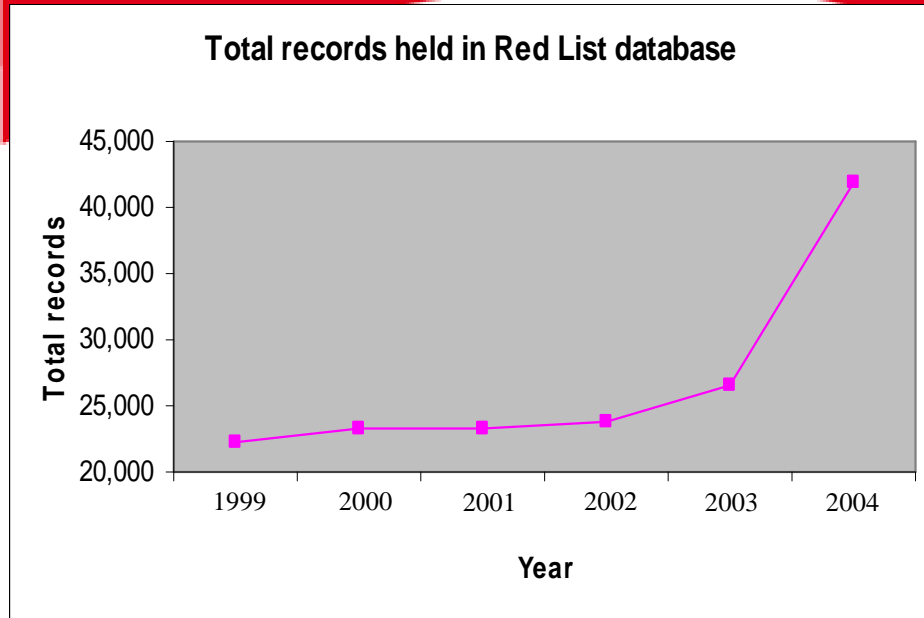
# Which species are in trouble?

The 2004 IUCN Red List contains **15,589** species threatened with extinction

- 12% of birds
- 23% of mammals
- 32% of amphibians
- 25% of conifers
- 52% of cycads
- 42% of turtles
- 18% of sharks and rays
- 27% of FW fish in East Africa



# Recent developments



**Information on threatened and non-threatened species**

Number of assessments with supporting documentation also increasing:

- Population trends
- Habitats, threats, conservation actions, utilization
- distribution maps



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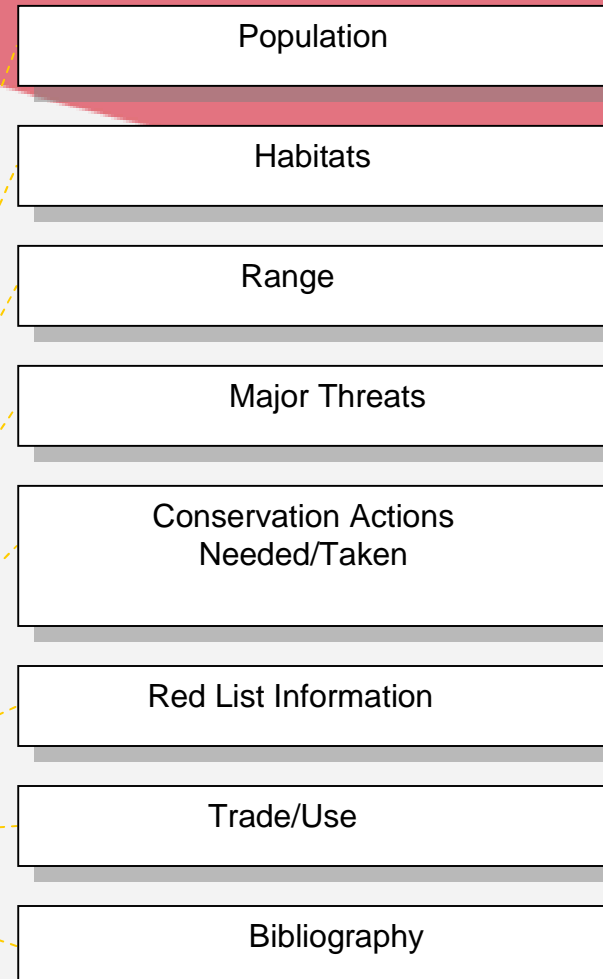
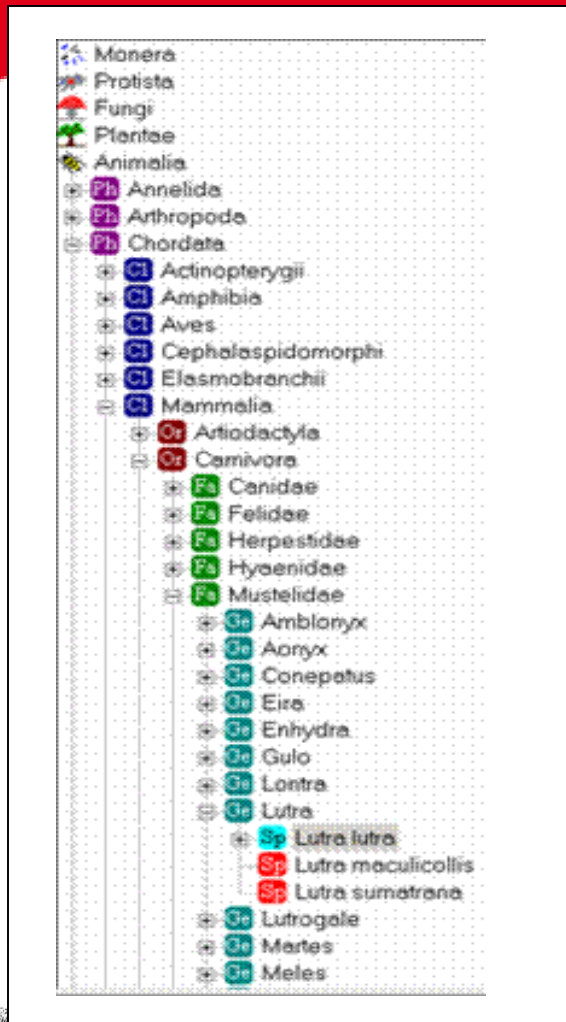
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# Various assessments processes

- **Specialist Groups**
- **Global assessments**
  - Amphibians and birds
  - replicated for mammals and reptiles (IUCN/SSC – CI/CABS)
- **Regional assessments**
  - Eastern Africa, Mediterranean, Europe, hotspot
- **The plant assessment**
  - done in the context of a CBD process (IUCN – Plantlife)



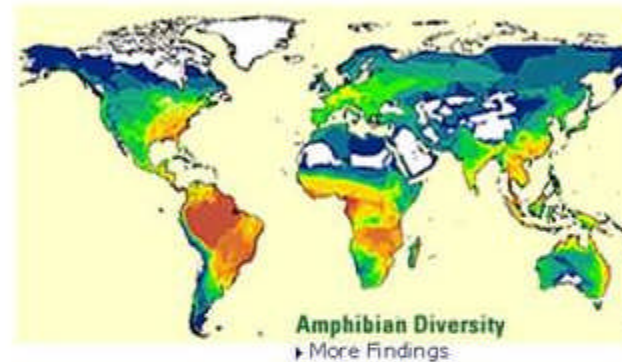
# SIS - Basic Architecture





**The Global Amphibian Assessment (GAA)** is the first-ever comprehensive assessment of the conservation status of the world's 5,743 known species of frogs, toads, salamanders, and caecilians. This website presents results of the assessments, including IUCN Red List threat category, range map, ecology information, and other data for every amphibian species.

**Search** the GAA database for species by name, taxonomy, country, region, habitat type, threat type, or IUCN Red List status.



**Fast Fact**

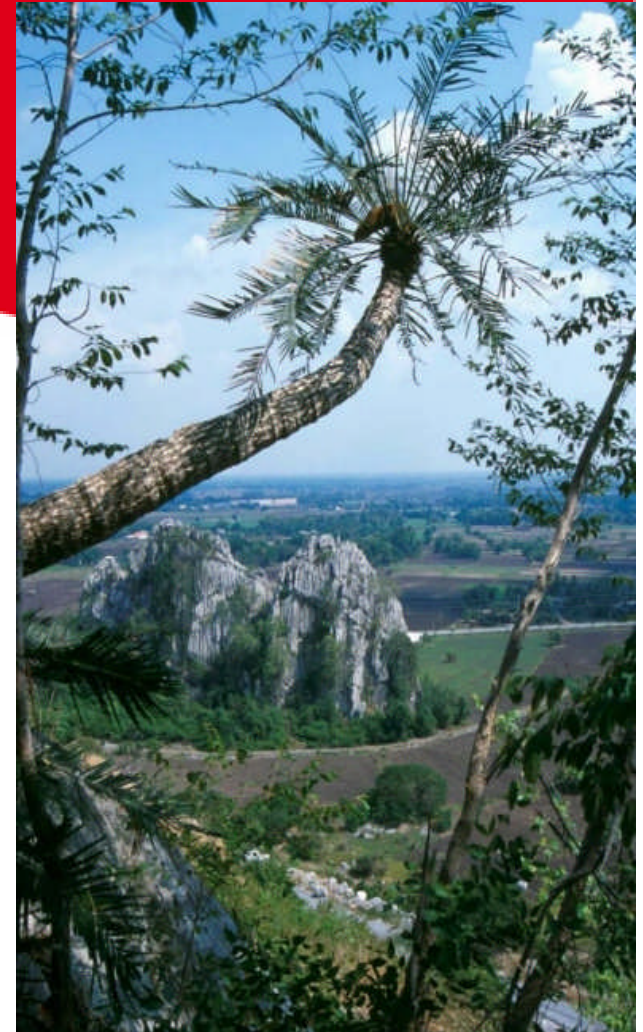
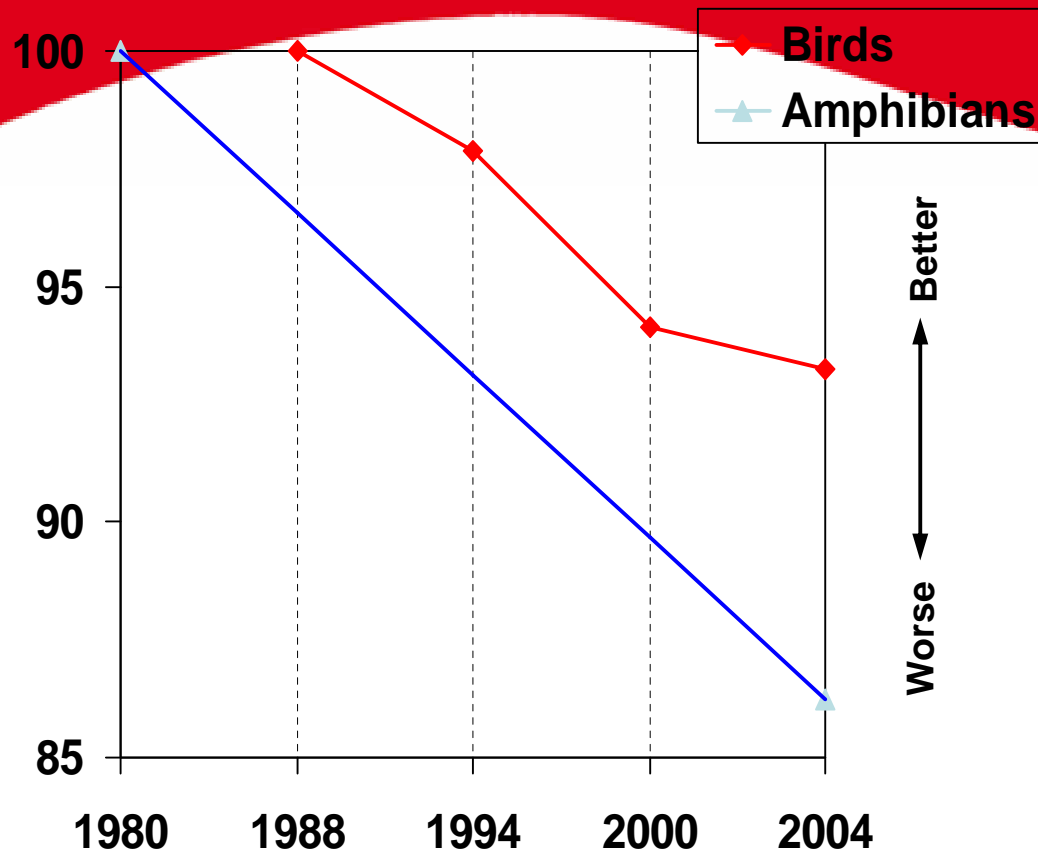
*As many as 129 amphibian species may have gone extinct since 1980.*

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# How is the state of biodiversity changing?

## Red List Indices



Cycads

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79.6% (207 species) - declining  
20.4% (53 species) - stable  
none are increasing

# Red List Index for 2010

- Birds since 1988
- Amphibians since 2004
- Mammals since 1996
- Cycads since 2003
- Conifers since 2003
- First assessments for all reptiles, fish, freshwater molluscs, dragonflies, palms, legumes...

But, regularly repeated complete assessments impractical for large and less well-known groups e.g. fungi (70,000 spp.) & insects (0.9 million spp.)





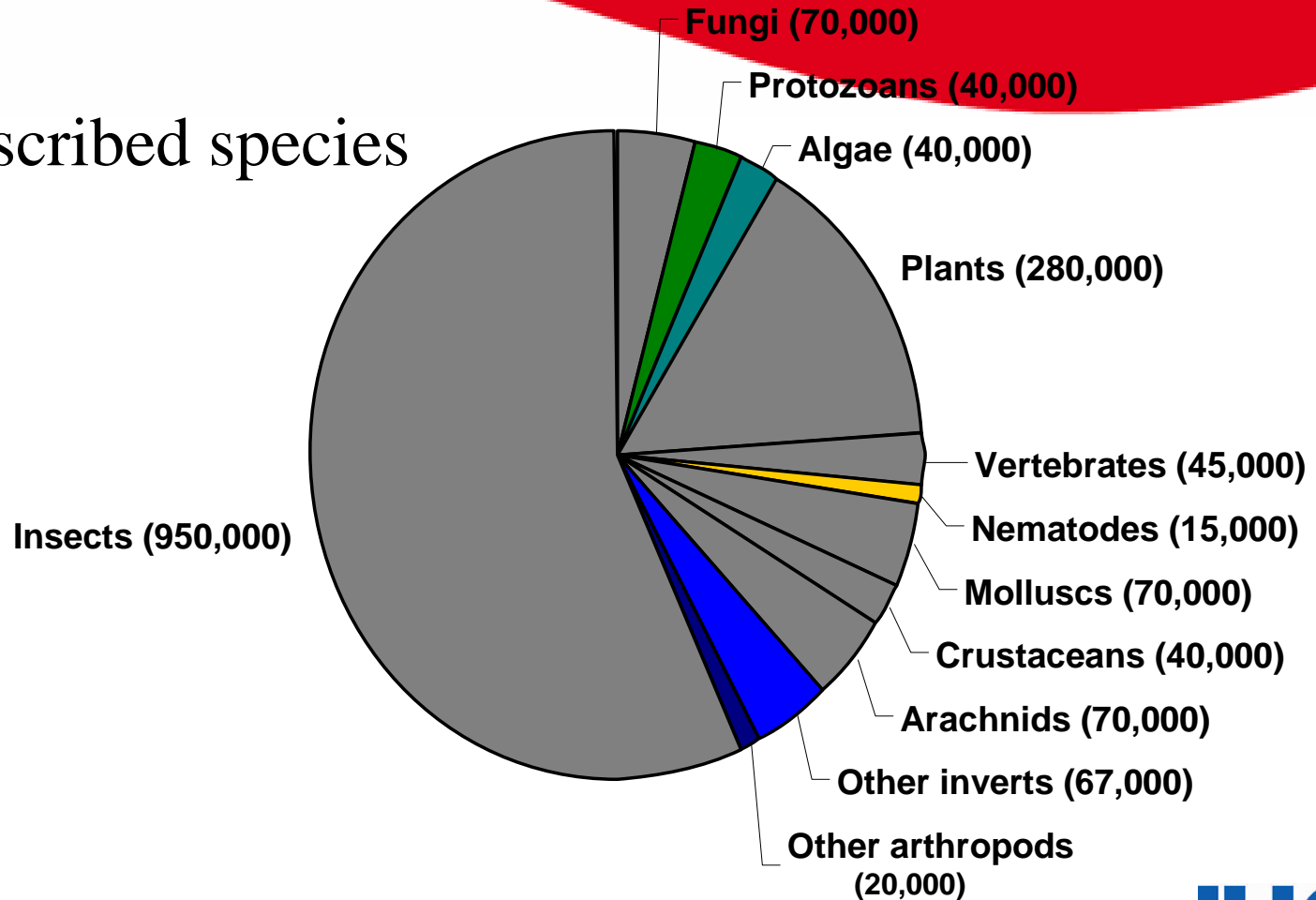
# Sampled Red List Index

- Random sample of c.1,200 species from most major taxonomic groups



# Sampled Red List Index

89% of described species



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# Importance of monitoring biodiversity at the species level

Species are only one of the components of biodiversity but:

- are reasonably well defined units
- a lot of information is already available
- variety of ways to measure species diversity
- targeted in conservation-related legislation
- great appeal for, and essential services to, millions of people
- Trends in species status can be used in many instances as a proxy to measure ecosystem integrity, health and services, management effectiveness, and sustainable use

