

STATE OF THE WORLD'S SPECIES



*The Endangered Western Prairie Fringed Orchid *Platanthera praeclara* is declining across much of its range in North America as a result of habitat loss and degradation due to agricultural expansion and intensification. © Jim Fowler*

A species rich world

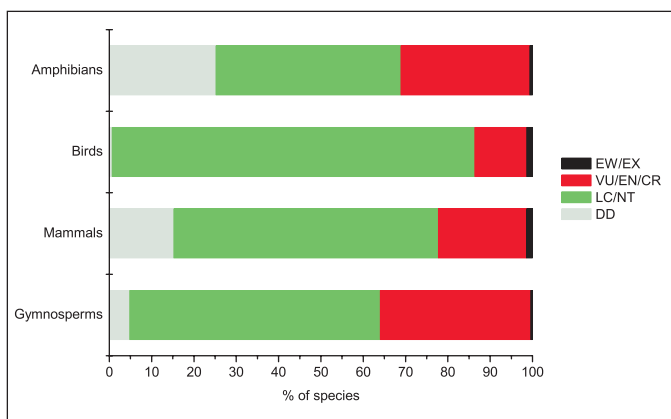
The variety of species existing today is a product of 3.5 billion years of evolution, involving radiation, speciation, extinction and, more recently, the impacts of people. Current estimates of the number of species range from 5 to 30 million, with a best working estimate of 8 to 14 million; of these, only around 1.8 million have been described.

While scientists debate how many species exist, there are growing concerns about the rising tide of extinctions of both described and undescribed species due to human activities. Although only 2.5% of the world's described species have been assessed so far, The IUCN Red List provides a useful snapshot

of what is happening to species today and highlights the urgent need for conservation action.

The 2008 IUCN Red List update

The 2008 update of The IUCN Red List includes 44,838 species, of which 869 (2%) are Extinct or Extinct the Wild; 16,928 (38%) are threatened with extinction (with 3,246 Critically Endangered, 4,770 Endangered and 8,912 Vulnerable); 3,513 (8%) are Near Threatened; while 5,570 (12%) have insufficient information to determine their threat status (Data Deficient). The number of extinctions might well exceed 1,100 if the 257 Critically Endangered species tagged as 'Possibly Extinct' are considered.

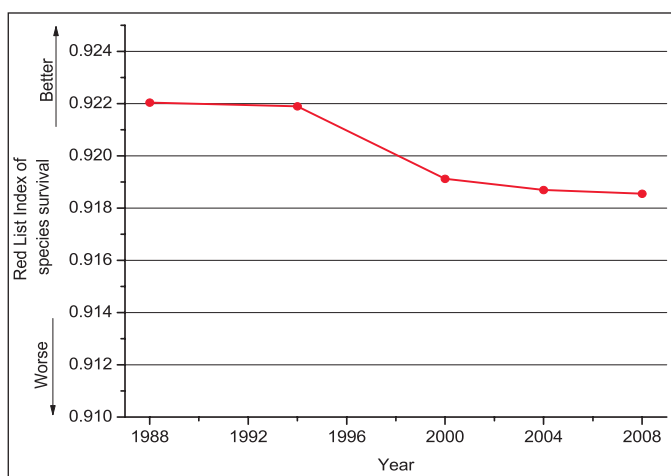


Proportions of species by threat category for four comprehensively assessed groups (a) amphibians, (b) birds, (c) mammals and (d) gymnosperms.

The 2008 IUCN Red List update includes:

- A complete reassessment of the world's mammals, showing that nearly one-quarter (22%) of mammal species are globally threatened or Extinct, and 836 (15%) are Data Deficient.
- The addition of 366 new amphibians, many listed as threatened, and the confirmed extinction of two additional species, reaffirming the extinction crisis faced by amphibians; nearly one-third (31%) are threatened or Extinct and 25% are Data Deficient.
- A complete reassessment of the world's birds indicates that one in seven (14%) are threatened or Extinct; birds are one of the best-known groups with less than 1% Data Deficient.
- 845 species of warm-water reef-building corals have been added to the Red List, with more than one-quarter (27%) listed as threatened and 17% as Data Deficient.
- All 161 grouper species; over 12% are threatened with extinction because of unsustainable fishing; a further 30% are Data Deficient.
- All 1,280 species of freshwater crab, 16% of which are threatened with extinction, but 49% are Data Deficient.

The Red List Index of species survival for bird species ($n=9,798$ non-Data Deficient species) shows that the world's birds are becoming more threatened. An RLI value of one equates to all species being categorized as Least Concern, and hence that none are expected to go Extinct in the near future. An RLI value of zero indicates that all species have gone Extinct.



Successful conservation has resulted in increased numbers of Przewalski's Gazelle *Procapra przewalskii* and its threat status has changed from Critically Endangered to Endangered. © Zhigang Jiang.

The 2008 IUCN Red List also includes some notable new species, for example 14 tarantulas from India (8 of them threatened); 3 orchids from the Americas; a striking *Rafflesia* species (plants with enormous flowers) from the Philippines; and a bumblebee which has declined dramatically in North America, as have other key pollinators world-wide.

Comparison to previous Red Lists – good news or bad?

Given increased species coverage, from 41,415 species in 2007 to 44,838 in 2008, it is not surprising that the number of threatened species has increased from 16,116 to 16,928. However, the overall proportion threatened has dropped slightly. This could be interpreted as good news, however, of the 223 species that experienced a genuine change in their Red List status between 2007 and 2008, 183 (82%) became more threatened, whereas 40 (18%) became less threatened.

The Red List Index for birds shows a steady and continuing deterioration in the status of the world's birds between 1988 and 2008. The index is based on species moving between Red List categories, and reflects the average Red List status of birds. Since 1988, 225 bird species have become more threatened, compared to just 32 species that have become less threatened.

Further evidence for increasing declines in biodiversity come from the amphibians. Despite a very limited review in 2008, seven species became more threatened in 2008; at least 42% of all species have declining populations, indicating that the number of threatened species will probably increase in future, whereas less than 1% of amphibians show increasing trends.

It is not all bad news; species can recover with concerted conservation efforts. In 2008, 37 of the recorded improvements in status were for mammals. An estimated 16 bird species avoided extinction over the last 15 years due to conservation programmes. Conservation does work, but to mitigate the extinction crisis much more needs to be done, and quickly.