

## GUIDELINES FOR APPROPRIATE USES OF RED LIST DATA

The IUCN Red List of Threatened Species™ is the world's most comprehensive data resource on the status of species, containing information and status assessments on over 40,000 species of animals, plants and fungi. As well as measuring the extinction risk faced by each species, the IUCN Red List includes detailed species-specific information on distribution, threats, conservation measures, and other relevant factors. The IUCN Red List of Threatened Species™ is increasingly used by scientists, governments, NGOs, businesses, and civil society for a wide variety of purposes.

These Guidelines are designed to encourage and facilitate the use of IUCN Red List data and information to tackle a broad range of important conservation issues. These Guidelines give a brief introduction to the IUCN Red List of Threatened Species™, the Red List Categories and Criteria, and the Red List Assessment process, followed by some key facts that all Red List users need to know to maximally take advantage of this resource. More detailed information on the IUCN Red List of Threatened Species™ is available, and references are provided at the end of this document. Finally, these Guidelines include a table giving examples of the wide variety of uses to which IUCN Red List data and information can be utilized, and outlining a few common errors and pitfalls to avoid.

### **The IUCN Red List of Threatened Species™**

The IUCN Red List is a searchable online database ([www.iucnredlist.org](http://www.iucnredlist.org)), and users can register to freely download data. Only after the data have been through a transparent and thorough process of peer review, are they added to the database.

### **The IUCN Red List Assessment Process**

The IUCN Red List is developed through contributions from a network of thousands of scientific experts around the world both within the IUCN community and beyond -- including universities, museums, and NGOs. It uses a scientific process based upon objective criteria. Assessments are impartial, independent, and not politically driven. This approach allows for a robust and rigorous peer review process of all incoming data. Assessments are periodically updated to ensure current information is available for users. The IUCN Red List is therefore a synthesis of the best available species knowledge from the top experts.

### **The IUCN Red List Categories and Criteria**

The IUCN Red List Categories and Criteria are the world's most widely used system for gauging the extinction risk faced by species. Each species assessed is assigned to one of eight different Categories (Extinct, Extinct in the Wild, Critically Endangered, Endangered, Vulnerable, Near Threatened and Data Deficient), based on a series of quantitative Criteria ([http://www.iucnredlist.org/info/categories\\_criteria2001](http://www.iucnredlist.org/info/categories_criteria2001)). Species classified as Vulnerable, Endangered and Critically Endangered are regarded as 'threatened'. The IUCN Red List Criteria were developed following extensive consultation and testing with experts familiar with all kinds of different species from all over the world, and it can be used to assess any species (apart from microorganisms).

### **The IUCN Red List of Threatened Species™ - the key facts:**

1. The IUCN Red List of Threatened Species™ is much more than just a list – the Red List database includes information on population size and trends, distribution, ecology and habitat preferences, utilization, threats, and conservation measures in place and needed. For an increasingly large number of species on the IUCN Red List, spatial distribution maps (in digital format) are freely available.
2. The IUCN Red List of Threatened Species™ includes more than threatened species and not all threatened species have been assessed; the IUCN Red List provides the threat status of the assessed species and therefore includes information on both threatened and non-threatened species.
3. The sample of species on the IUCN Red List are representative of the state of biodiversity, though not all species have been assessed:
  - a. Between 1.4-1.8 million species have been described, yet the estimates of the total number of species on earth range from 2 – 100 million. We are far from knowing the true status of the entire earth's biodiversity.
  - b. So far around 45,000 of these have been assessed for inclusion on the IUCN Red List.

- c. All known birds, amphibians, mammals, reef-building corals, freshwater crustaceans, conifers and cycads have been assessed.
  - d. Only a relatively small proportion of plants, invertebrates, and marine species have been assessed to date
4. Red List Categories are broad – one Vulnerable species isn't necessarily identical in status to another Vulnerable species. A species can decline (or improve) in status without necessarily changing its Red List Category.
  5. A species may change in Red List Category because better information becomes available – it does not necessarily mean the extinction risk of the species has changed.
  6. The status of a species may be different at the global level and at the local level. In certain situations, a species may be listed as threatened on a national red list even though it is considered Least Concern at the global level on the IUCN Red List of Threatened Species™.
  7. The Red List Criteria were developed for large-scale assessments; they can be applied to broad-scale regional assessments, but by itself may not be appropriate at very small scales (see the Red List Guidelines/Regional Red List guidelines for more information (<http://intranet.iucn.org/webfiles/doc/SSC/RedList/RedListGuidelines.pdf> and [http://intranet.iucn.org/webfiles/doc/SSC/SSCwebsite/Red\\_List/regionalguidelinesEn.pdf](http://intranet.iucn.org/webfiles/doc/SSC/SSCwebsite/Red_List/regionalguidelinesEn.pdf))
  8. The IUCN Red List of Threatened Species™ is not, on its own, a system for setting conservation priorities. Red List assessments simply measure the relative extinction risk faced by species, subspecies, or subpopulations. To set conservation priorities, additional information must be taken into account.
  9. Many Red List assessments include spatial distribution maps. However, these are generalized maps and should be used primarily as an orientation tool, especially at the site level.
  10. Red List assessments and criteria for each species reflect the best data available. However, it must be noted that there is a time lag between the collection of data and inclusion of the status of a species on the Red List. Therefore the information on the Red List refers to the time at which supporting data were gathered and not at the time it was published on the Red List.

### **The IUCN Red List of Threatened Species™ - appropriate and inappropriate uses**

The following table gives an indication of the wide variety of uses to which the IUCN Red List (and data contained therein) can be utilized. Some examples of inappropriate applications are also given so that users of these data do not expend unnecessary resources on analyses that may prove to be counterproductive in the conservation arena – these examples should be taken as indicative rather than exhaustive.

| Types of use  | Appropriate uses   | Inappropriate uses   |
|---|--|--|
| <b>Policy and legislation</b>                               |  |  |
| International/national/sub-national legislation and policy. | Informing the development of: <ul style="list-style-type: none"> <li>• National/regional/sub-national threatened species lists</li> <li>• National Biodiversity Strategies and Action Plans.</li> </ul> Using the IUCN Red List Index <a href="#">[[hyperlink]]</a> to determine genuine changes in species status over time.  | Automatically linking a legislative response to the inclusion of a species in a particular Red List category -- e.g., enacting national law banning all trade of any species that is listed as threatened. Well-regulated trade can contribute positively to the conservation of some threatened species, and may be essential for human livelihoods.<br><br>For information on IUCN's guidelines on scientific collecting of threatened species, see here <a href="#">[[hyperlink]]</a> |
| International agreements.                                   | Guiding or informing decisions in international conventions, including: <ul style="list-style-type: none"> <li>• Convention on Biological Diversity (CBD)</li> <li>• Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)</li> <li>• Ramsar Convention on Wetlands</li> <li>• Convention on the Conservation of Migratory Species of Wild Animals (CMS), including the various CMS Regional Agreements</li> <li>• fisheries agreements</li> </ul> | Automatically including threatened species on lists without considering underlying cause of the threat and other relevant factors -- e.g., including a threatened species on a CITES appendix even when it is not threatened by international trade.   |

| <b>Development planning and environmental review</b>       |  |   |
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| Regional and national resource management and development. | Guiding the management of natural resources at scales ranging from local to national development policies and legislation (e.g., in the areas of land-use planning, certification, transport, energy, river-basin management, poverty reduction strategies). | Relying solely on the global Red List status for local planning (e.g., Developing a harvest plan for a local plant population based solely on the global Red List status)   |
| Site-level planning and Environmental Impact Assessment.   | Guiding the site level evaluation, the Red List is a key input for an EIA. Evaluating the possible effects of large-scale, infrastructure development initiatives or assessing project impacts at site level.  | Relying solely on Red List information without incorporating site level information -- e.g. assuming a site can be developed because, according to Red List maps, no threatened species appear to be present. The IUCN Red List can provide broad context, but cannot replace targeted site level investigations. |

| <b>Conservation planning</b>  |   |  |
|---|---|--|
| <p>Informing conservation action for individual species.</p>                                | <p>Using Red List data (including information on habitat requirements, threats that need to be addressed, conservation actions that are recommended, etc.) to identify species that require specific conservation action, and to help determine the conservation measures that are needed.</p>  | <p>Relying solely on the Red List category without incorporating supporting information and/or additional relevant data sources.</p>   |
| <p>Geographic priority setting: site-level, landscape/seascape level; and global level.</p> | <p>Determining site-scale conservation priorities, such as Important Bird Areas, Important Plant Areas, Key Biodiversity Areas, and Alliance for Zero Extinction Sites, which can be used to inform protected areas gap analyses.</p> <p>Informing the conservation of wide-ranging species, and species threatened by broad-scale ecological processes, such as water quality.</p> <p>Informing the identification of global priorities, e.g., Endemic Bird Areas, biodiversity hotspots, etc.</p> <p>Setting geographical priorities for conservation funding, e.g. Global Environment Facility Resource Allocation Framework country allocations</p> | <p>Misinterpreting range map information presented on the Red List. It is important to be aware that IUCN Red List maps show species distribution on a broad scale – at the site level they provide a good indication of which species may be present, but this information needs to be verified with site surveys.</p> <p>It is always important to remember that not all species have been assessed.</p> |

| <b>Monitoring and evaluation</b>   |  |  |
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| <p>Evaluating the state of biodiversity and monitoring changes in the state of biodiversity.</p> <p>Measuring the effectiveness and impact of conservation activities.</p> | <p>Answering important questions regarding the state of biodiversity, including: the overall status of biodiversity; the varying status of biodiversity between regions, countries and sub-national areas; the rate at which biodiversity is being lost; where biodiversity is being lost most rapidly; and the main drivers of decline and loss of biodiversity.</p> <p>A useful tool for tracking changes in species status over time is the IUCN Red List Index.<br/> <a href="http://www.iucnredlist.org/info/programme">http://www.iucnredlist.org/info/programme</a></p> | <p>Assuming that the IUCN Red List provides a comprehensive picture of all the species that are threatened. So far, only some groups of species have been comprehensively assessed.</p> <p>It is important to recognize that species may change in Red List category just because better information has become available; a category change does not necessarily mean that the species' status has changed.</p> |

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| Documenting extinction.  | Determining extinction rates across globally and comprehensively assessed species categories   | Assuming that the number of Extinct and Extinct in the Wild species on the IUCN Red List represents a comprehensive global list. Many extinctions go undocumented, and many species may have gone extinct before they could be formally described. Also, many extinctions took place before 1500, the date from which extinctions are recorded on the IUCN Red List. |
| <b>Scientific research</b>   |  |  |
| Informing species-specific survey work and ecological studies.                         | Using data gaps identified in the assessment process (e.g., DD species or known data gaps for threatened species) to guide research and funding opportunities. |  |
| Informing survey work and research into threatening processes across multiple species. | Using Red List data to highlight general overarching threatening processes, including emerging threats.  |  |
| <b>Education, communication and awareness-raising</b>                                  |  |  |
| Education  | Informing academic work (e.g., school home-work assignments, undergraduate essays and dissertations, etc.)   |  |
| Media  | Promoting knowledge of the state of biodiversity, species-conservation issues, species at risk, etc.   |  |
| Fund-raising.  | Providing a solid factual basis for funding proposals to engage in meaningful conservation work.   |  |

Sources for additional information

- IUCN Red List Categories and Criteria:
- RLI documents
- Red List Guidelines/Regional Red List guidelines