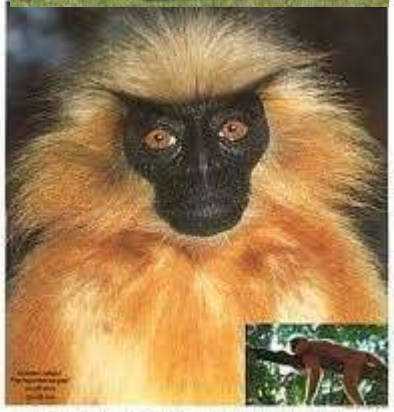
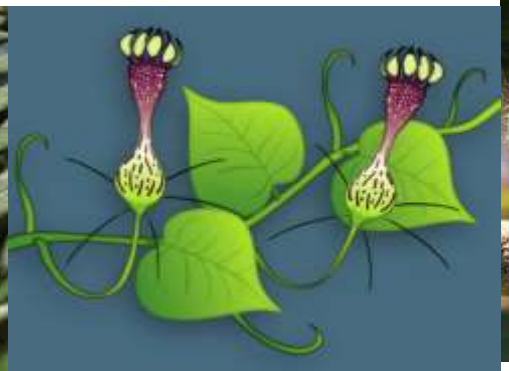





RED DATA BOOK

Presented By-
Pranab Borah
Dept. of Herbal Science & Technology


WHAT IS RED DATA BOOK?

- Species judged as threatened are listed by various agencies as well as by some private organizations.
- The most cited of these list is the Red Data Book. It is a loose-leaf volume of information on the status of many kinds of species.
- This volume is continually updated and is issued by the International Union for Conservation of Nature (IUCN) located in Morges, Switzerland.

- . "Red" of course is symbolic of the danger that these species both plants and animals presently experience throughout the globe.
- The Red Data Book was first issued in 1966 by the IUCN's Special Survival Commission as a guide for formulation, preservation and management of species listed.
- In this Book, information for endangered mammals and birds is more extensive than for other groups of animals and plants, coverage is also given to less prominent organisms facing extinction.

- There are organizations and institutions at the national and international level for developing and coordinating biodiversity conservation activities WWF (World Wide Fund for the Conservation of plant and animal resources),IUCN(International Union for the Conservation of Nature and Natural Resources),Forest Survey of India, Wild life Institute Of India etc are examples.

Main Aims & Goals of the RED Data Book

- There are enormous of species , which were extinct long before the life exists on the planet earth. The IUCN was founded with an aim to maintain the complete record of every species.

- The red data book contains the complete list of threatened species. The main aim behind this documentation is to provide complete information for research and analysis of different existence species.

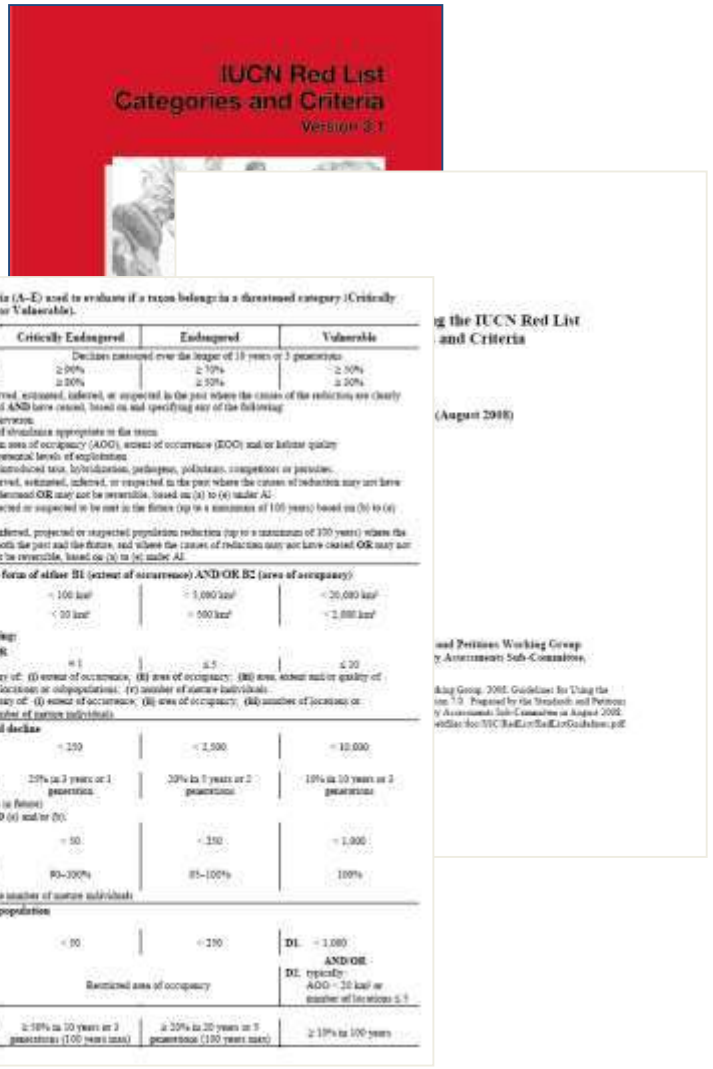
- This book also has information about the reason for the species to become extinct along with the population trends and range.

The IUCN Red List assessment estimates **risk of extinction**

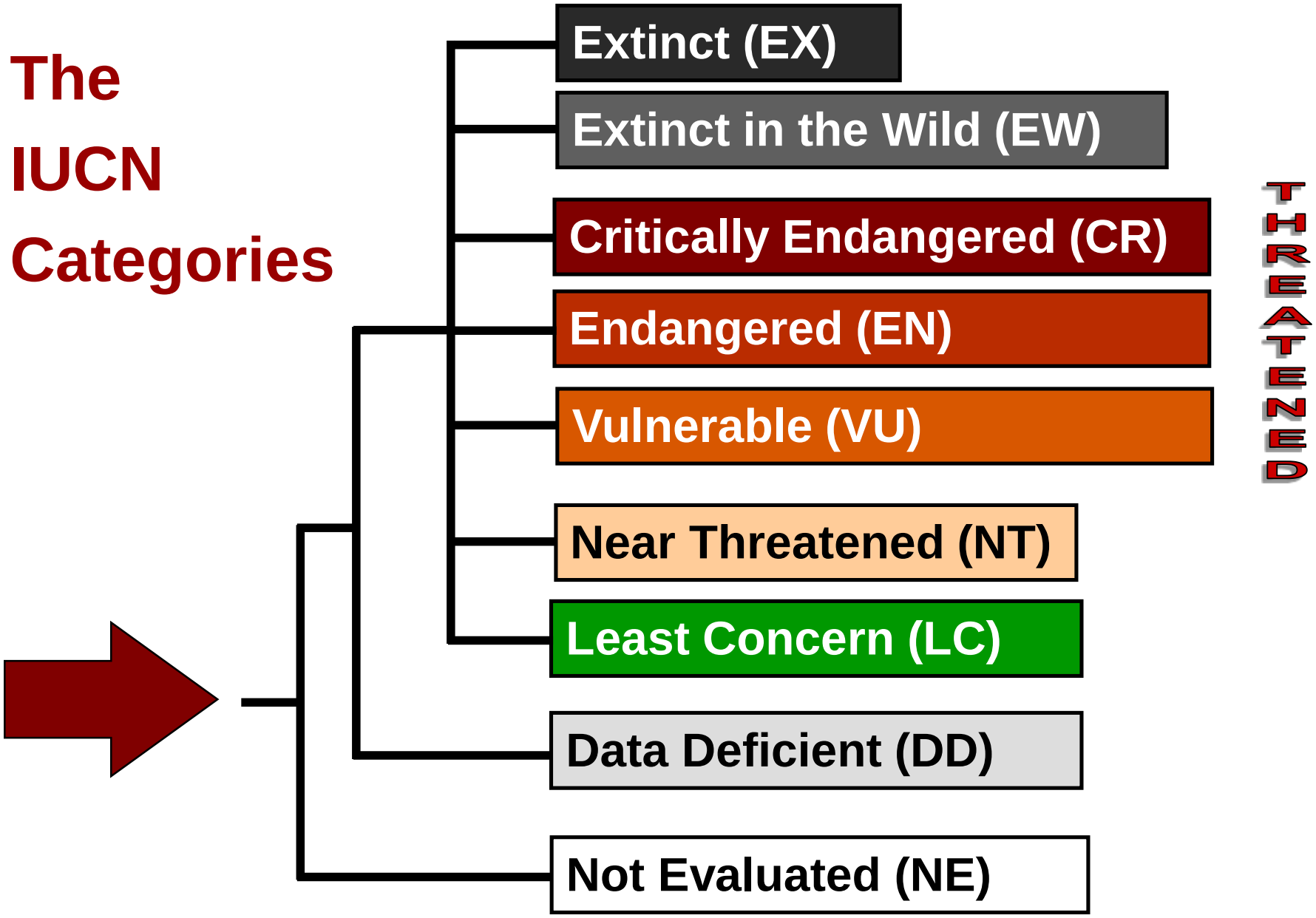
What is the likelihood of a species becoming extinct in the near future, given current knowledge about population trends, range, and recent, current or projected threats?

The IUCN Red List Categories & Criteria

All materials are freely available on IUCN Red List web site: www.iucnredlist.org

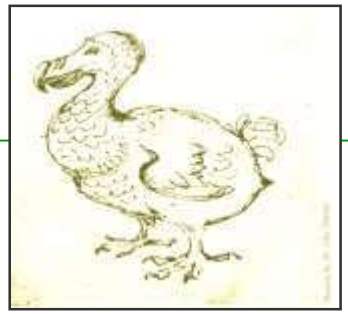


The IUCN Categories



Extinct (EX)

A taxon is Extinct when there is no reasonable doubt that the last individual has died.



Dodo, *Raphus cucullatus*

Extinct in the Wild (EW)

A taxon is Extinct in the Wild when it is known only to survive in cultivation, in captivity or as a naturalized population (or populations) well outside the past range.

Franklinia,
Franklinia alatamaha

A taxon is threatened when the best available evidence indicates that it meets any of the criteria A to E for the thresholds stated in one of the three threatened categories: Critically Endangered, Endangered or Vulnerable.

Critically Endangered (CR)

CR taxa are considered to be facing an extremely high risk of extinction in the wild

Mandrinette, *Hibiscus fragilis*

Endangered (EN)

EN taxa are considered to be facing a very high risk of extinction in the wild

Black-browed Albatross, *Thalassarche melanophrys*

Vulnerable (VU)

VU taxa are considered to be facing a high risk of extinction in the wild

Golden Pagoda, *Mimetes chrysanthus*

Near Threatened (NT)

A taxon is Near Threatened when it has been evaluated against the criteria and does not qualify for CR, EN or VU now, but is close to qualifying for or is likely to qualify for a threatened category in the near future.

Macaronesian Laurel, *Laurus azorica*

Least Concern (LC)

A taxon is Least Concern when it has been evaluated against the criteria and does not qualify for CR, EN, VU or NT. Widespread and abundant taxa are included in this category.

Olive Baboon, *Papio anumbis*

Data Deficient (DD)

A taxon is Data Deficient when there is inadequate information to make a direct, or indirect, assessment of its risk of extinction based on its distribution and/or population status.

Tree Tomato
Solanum [Cyphomandra] betacea

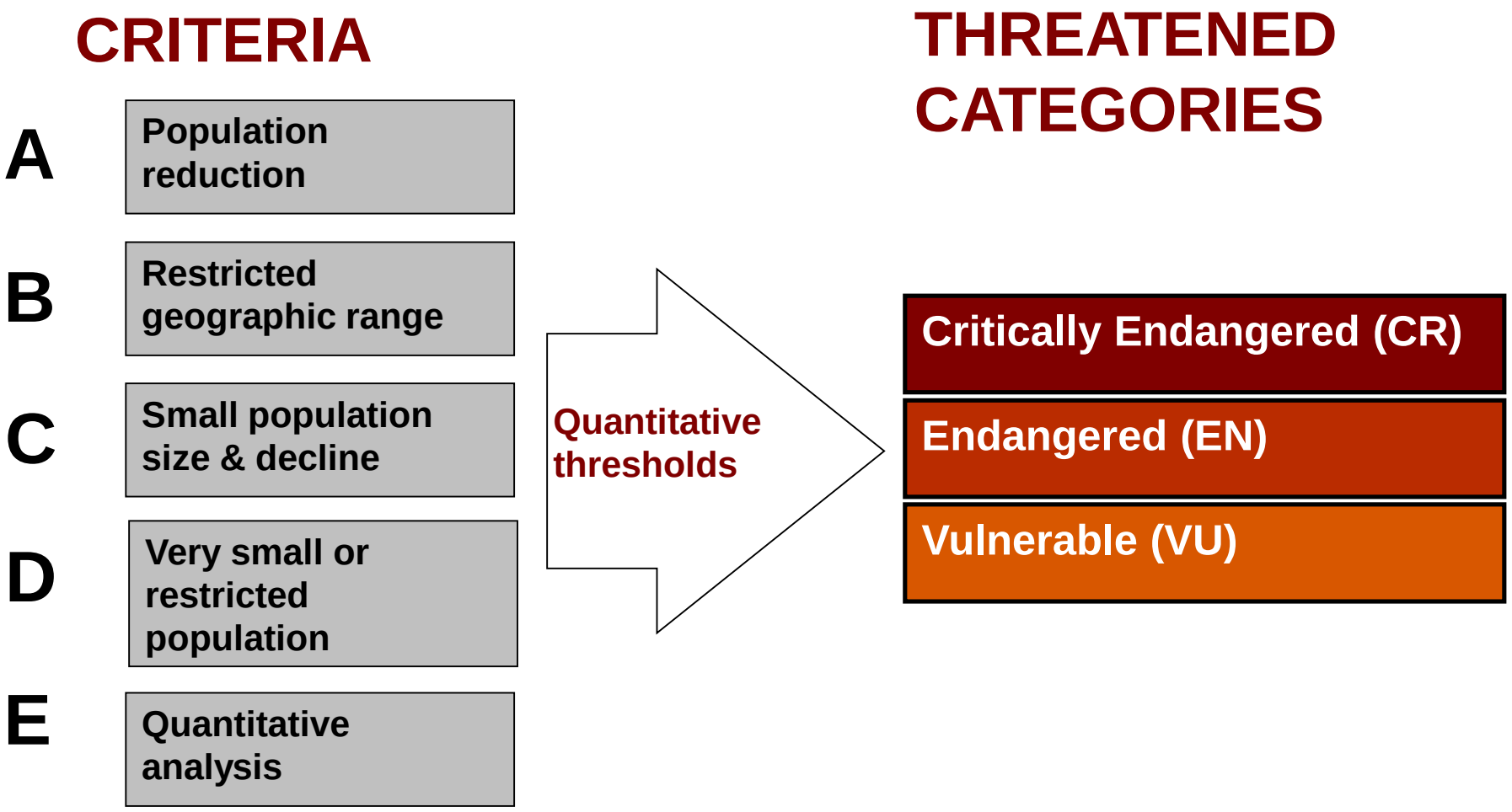
Not Evaluated (NE)

A taxon is Not Evaluated when it has not yet been evaluated against the criteria

The Nilgiri Tahr(Nilgiritragushylocrius)

- Endangered species. The clouded leopard is protected throughout most of its range. Deforestation is the principle threat to the clouded leopard, although the seriousness depends upon further study of the species' tolerance of various degrees of forest clearance. The clouded leopard is also widely hunted for its teeth and pelt and for bones for the traditional Asian medicinal trade.

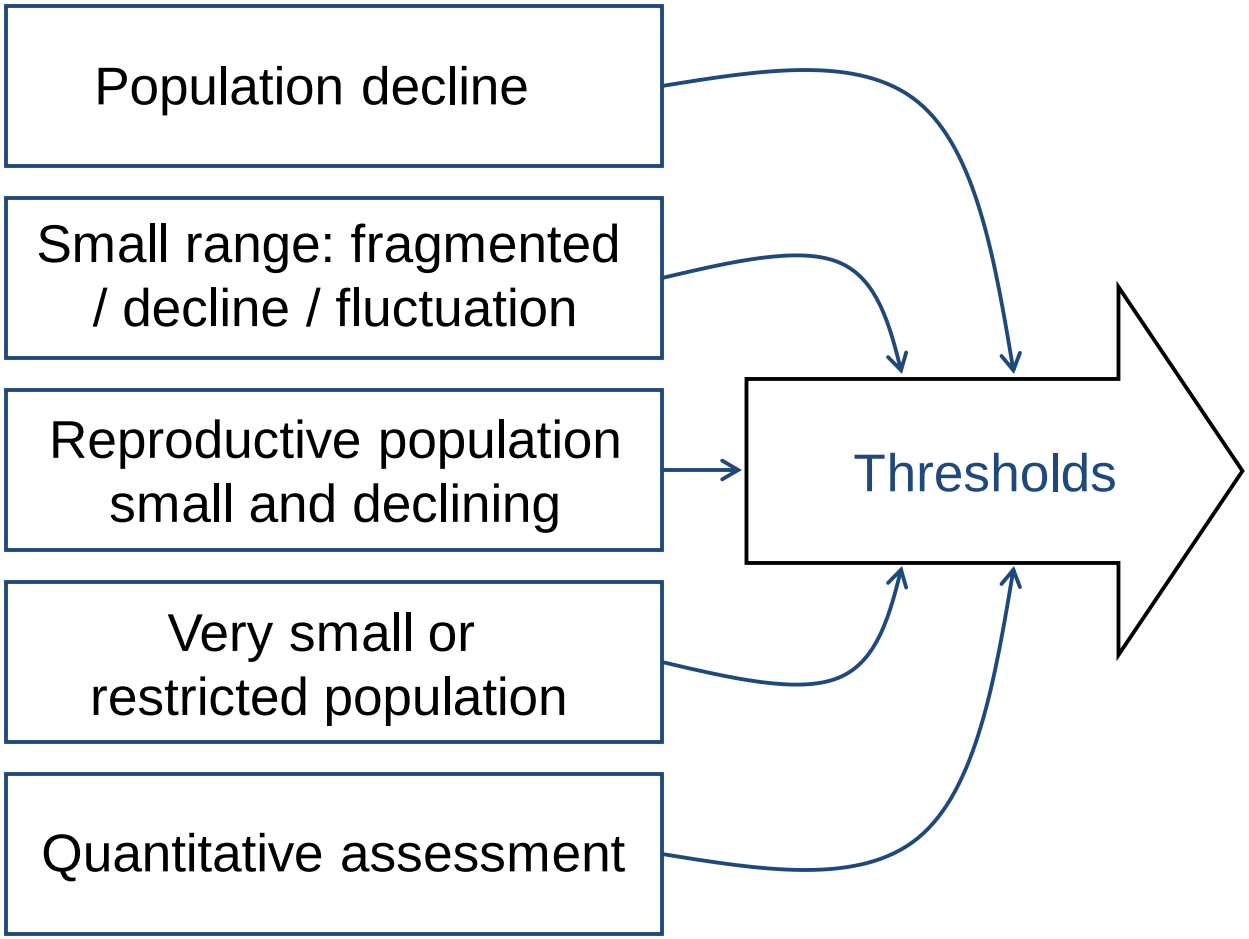
Nature of the Criteria

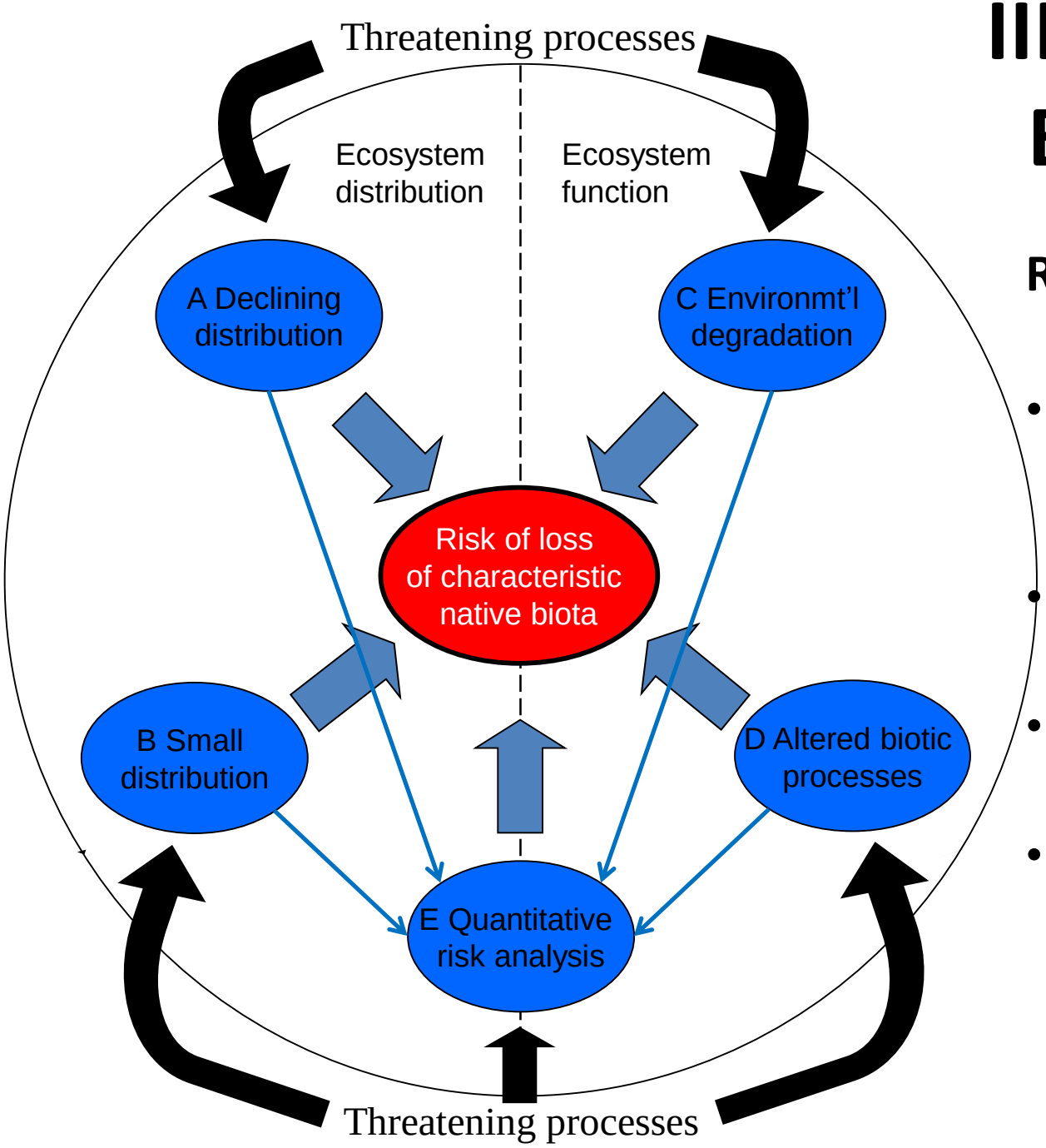


Georgina M. Mace

Quantitative criteria: Categories for IUCN red lists

Russell S. Lande



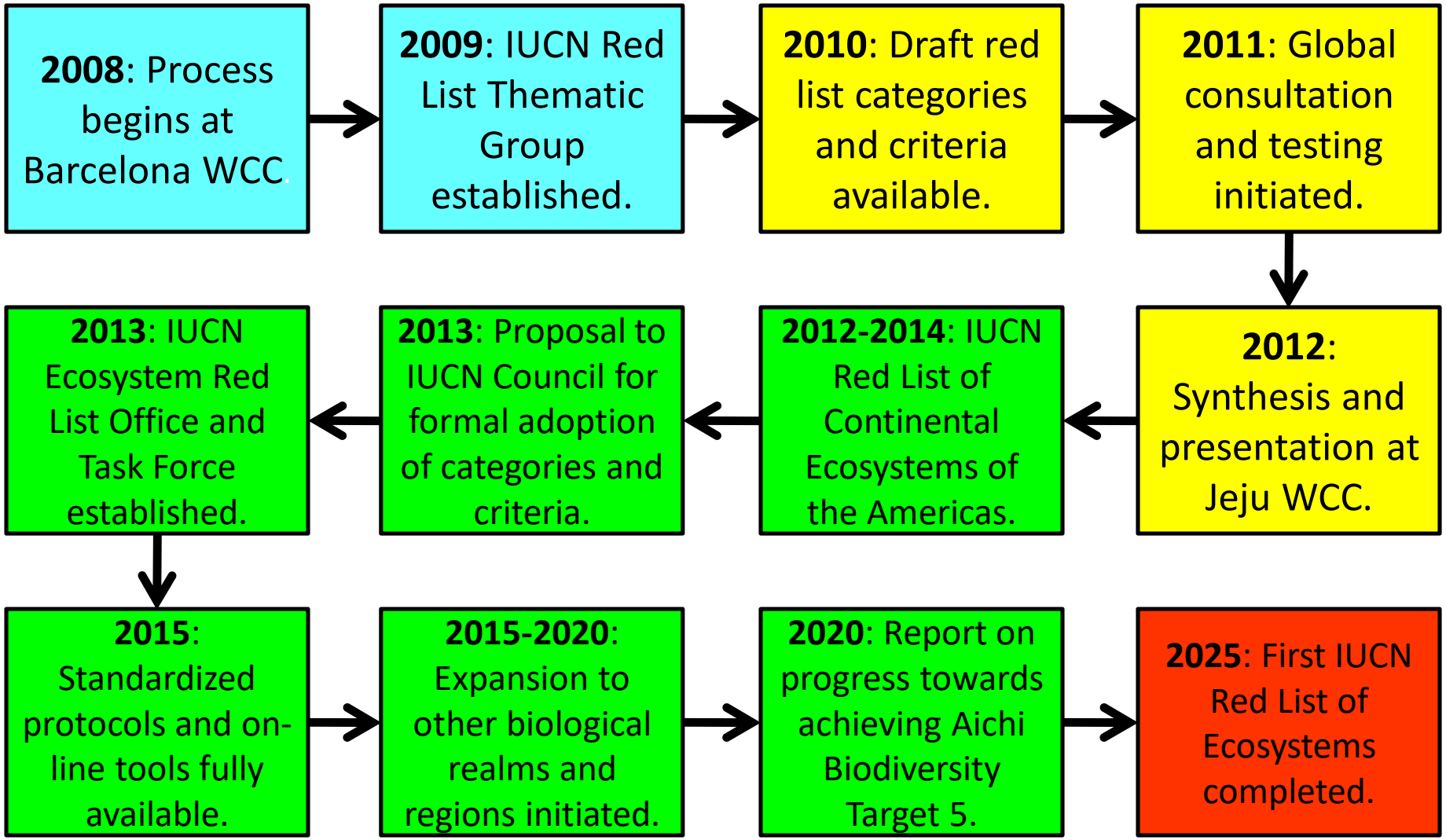


III. Assessing Ecosystem Change

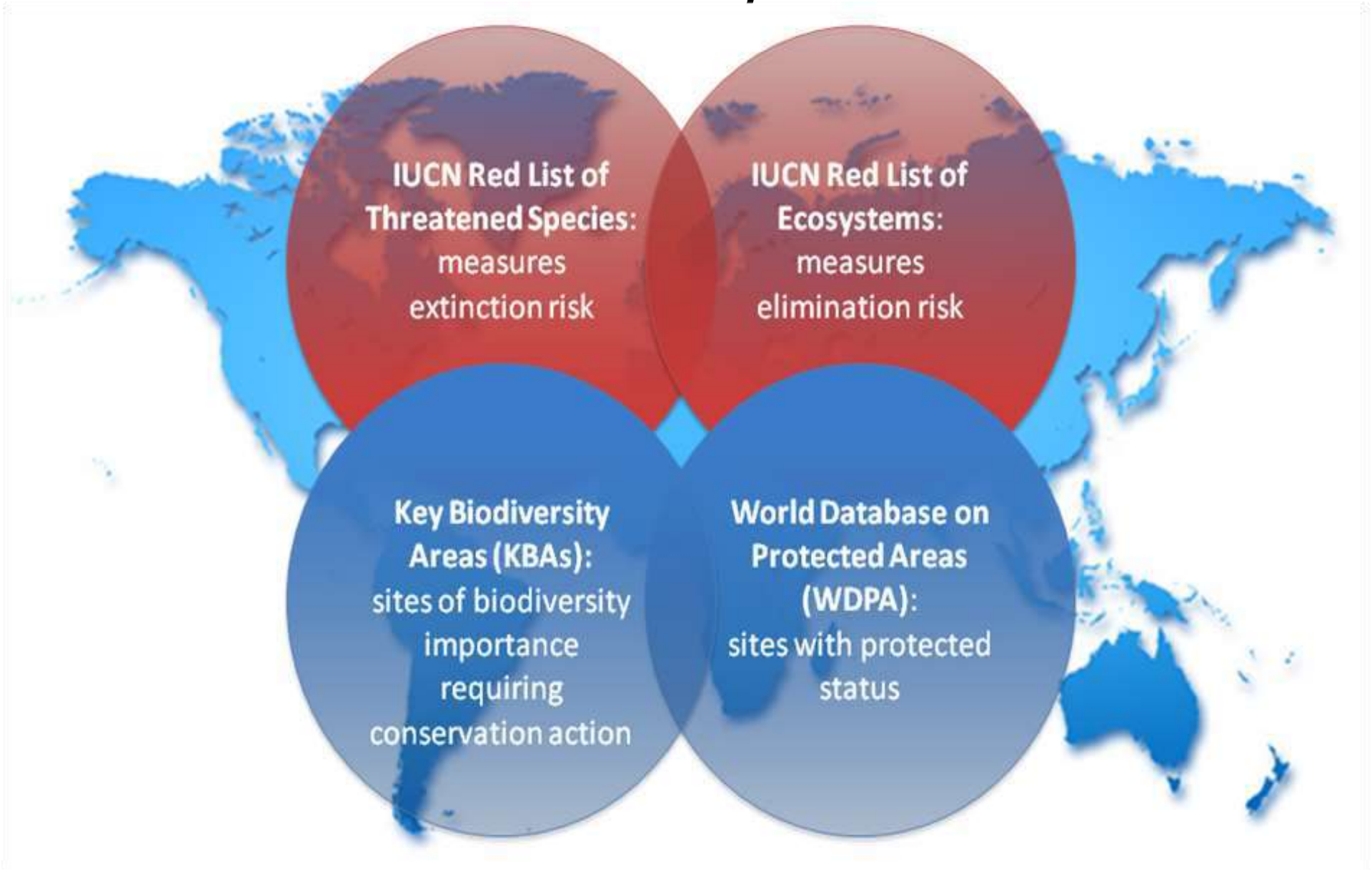
Risk model for ecosystems:

- threats to defining features (distribution, biota & function)
- multiple mechanisms (causes of threat)
- 4 symptoms (of decline) = 4 criteria
- plus one overarching criterion (probability of collapse)

Past, present and future



The IUCN knowledge products *and their integration*



Scope of Application

The IUCN Red List Categories and Criteria are:

- Used to assess taxa at the global level
- Can be used at regional levels **(but see the *Guidelines for Application of IUCN Red List Criteria at Regional Levels*)**
- Used to assess wild populations inside their natural range (including populations resulting from benign introductions)

IUCN Categories and Criteria can be applied to:

- All described taxa (species, subspecies, varieties), except micro-organisms
- Taxa not yet formally described, **but only if** they are:
  - A clearly distinct species;
  - Museum/herbarium voucher references are provided;
  - Distribution information is available;
  - There is clear conservation benefit to assessing the species.

Advantages of the RED Data Book

- It helps in identifying all animals, birds, and other species, about their extinct and endangered.
- It is used to evaluate the total wild animals population present
- The data available in this book is to evaluate the taxa at the global level.
- The main benefit of this book is evaluate the risk of taxa becoming globally extinct.
- This book maintain the complete record of all endangered animals, plants and other species.

Disadvantages of the RED Data Book

- The information available in the red data book is incomplete. Many species both extinct and present are not updated in this book.

- The criteria is applied here only within the territory of the state.

- This book maintain the complete record of all animals, plants, other species but it has no information about the microorganism.

THANK YOU