

# How to assess taxa for the IUCN Red List

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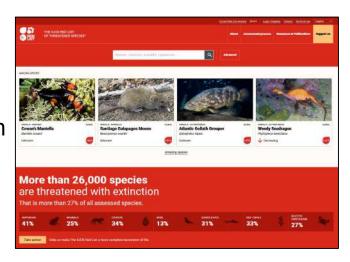




#### 1. What is the IUCN Red List?

World's most comprehensive information source for extinction risk of species.

- Not just a list, but a compilation of the conservation status of species at the global level
- Based on the best scientific information available
- Widely used to inform and influence biodiversity conservation







#### The aims:

- Establish a baseline from which to monitor the change in status of species
- Provide a global context for the establishment of conservation priorities at the local level
- Monitor, on a continuing basis, the status of a representative selection of species (as biodiversity indicators) that cover all the major ecosystems of the world



## IUCN Red List assessment: an estimate of extinction risk

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**?

It is not a final list of species that are priorities for conservation action



Illustration copyright Bob Diven



#### 2. HOW CAN RED LIST DATA BE USED?





### The Value of the IUCN Red List

#### Reputation of The IUCN Red List

- Beyond subjective expert opinion / process
- Beyond a list of threat categories
- Beyond hand-picked assessments

#### Used for

- Analysis
- Informing conservation actions
- Identifying sites for conservation action
- Engaging the private sector
- Informing policy and management
- Guiding species conservation funding
- Communication





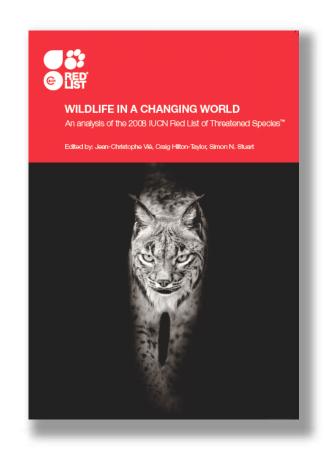


### **Analysis: status of biodiversity**

Threatened and at risk of extinction worldwide:

- 25% of the world's mammals
- 40% of amphibians
- One in seven birds
- A third of reef building corals
- 34% of conifers
- 30% of sharks and rays

We know enough to show that species are in trouble





## **Analysis: Pressures**

#### **FRESHWATER**

569 threatened species

**TERRESTRIAL** 

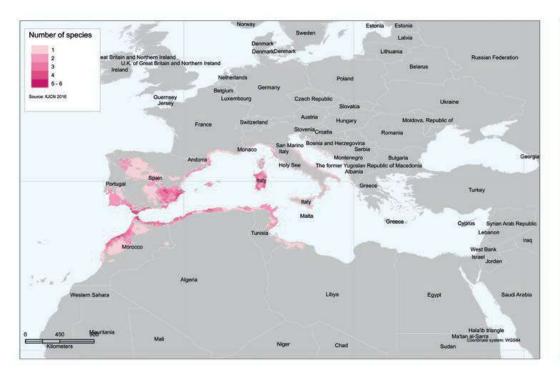
597 threatened species

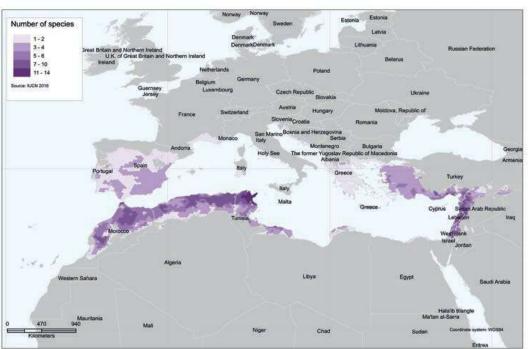
MARINE

90 threatened species

Natural system modifications	426
Pollution	339
Climate change & severe weather	241
Invasive and other problematic species	138
Agriculture & aquaculture	81
Residential & commercial development	74
Human intrusions & disturbance	67
Biological resource use	60
Transportation & service corridors	33
Energy production & mining	19
Geological events	(
Agricultura & aguagultura	0.44
Agriculture & aquaculture	348
Residential & commercial development	252
Invasive and other problematic species	201
Natural system modifications	201
Biological resource use Human intrusions & disturbance	192
	173
Transportation & service corridors	127
Climate change & severe weather Pollution	114
	91
Geological events Energy production & mining	88
Energy production & mining	56
Biological resource use	83
Climate change & severe weather	21
Invasive and other problematic species	18
Residential & commercial development	19
Pollution	14
Human intrusions & disturbance	13
Energy production & mining	11
Transportation & service corridors	7





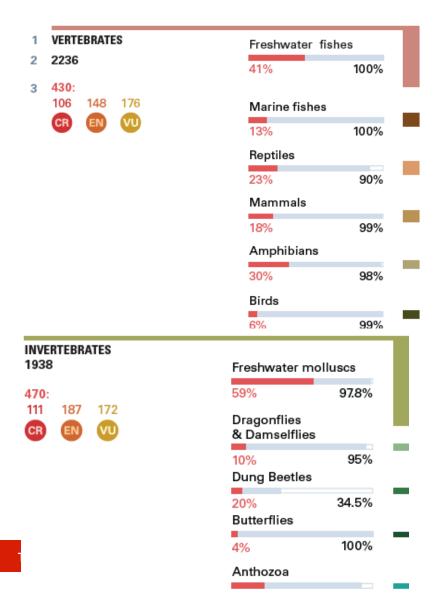


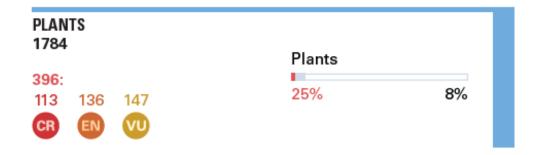
Threatened dung beetles

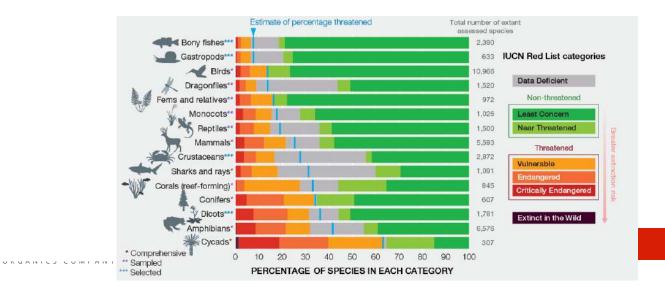
Data Deficient species



#### **Analysis: Biodiversity conservation status**









### **Informing Conservation Actions**

#### **Targeted conservation works:**

- 37 recent improvements in status in mammals
- 5% of threatened mammals have increasing populations
- 16 birds prevented from going extinct in the last 15 years due to conservation efforts
- Without conservation, status of birds and mammals would be almost 20% worse













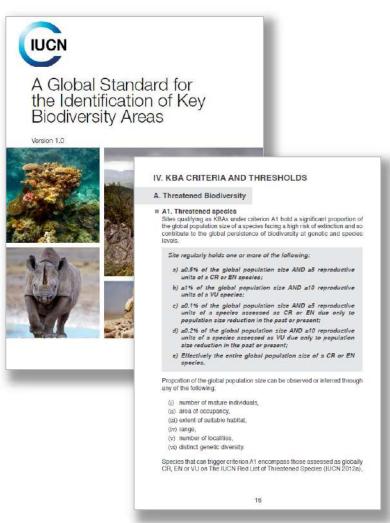
## Identify sites for conservation action Key Biodiversity Areas

Harmonizing existing approaches:

- » Important Bird Areas
- » Important Plant Areas
- » Important Freshwater Areas
- » Prime Butterflies Areas
- » Alliance for Zero Extinction, etc.

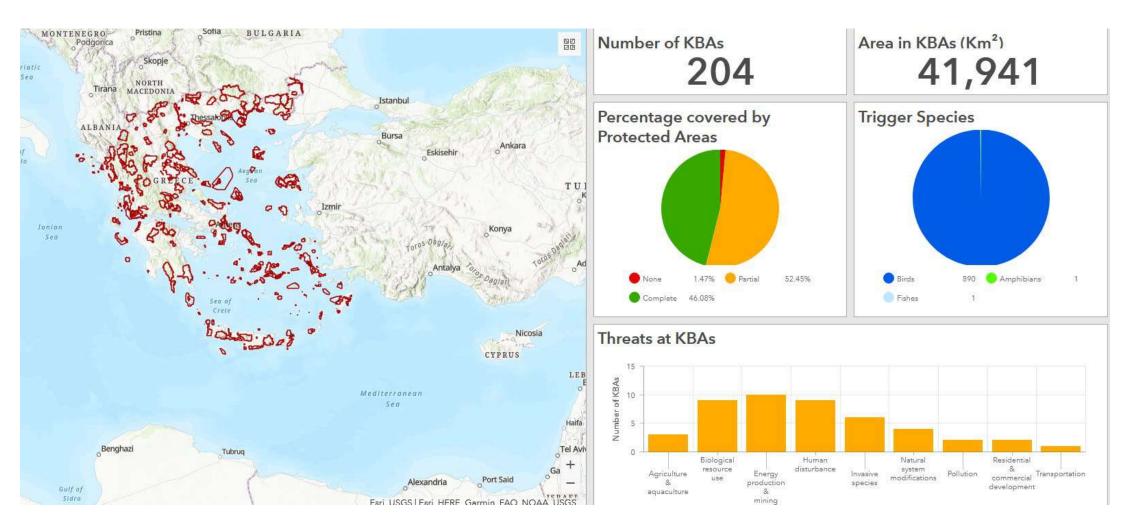
Set of criteria to identify sites that contribute significantly to the global persistence of biodiversity







## **Key Biodiversity Areas**





#### Integrated Biodiversity Assessment Tool (IBAT)

- Collaboration between IUCN, BirdLife International, Cl, UNEP-WCMC)
- Free access to range of data about high priority areas for conservation (PAs, KBAs, AZE sites, endemic bird areas, habitat info., etc.)
- Resource for countries to help inform National Biodiversity Strategies and Action Plans (NBSAPs)

https://www.ibat-alliance.org/ibat-conservation/login

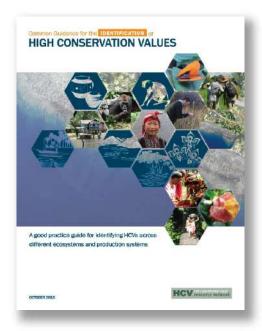




## Safeguard Policies and Certification Schemes



Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources







## **Informing Policy & Management**























The Parties to CBD agreed a new Strategic Plan with 20 'Aitchi' targets for 2020

CND strategic goal	CBD 2020 target Summarised from Report of the Ad Hoc Open-Ended Working Group on Review of Implementation of the Convention on the Work of its Third Meeting document UNEP/CBD/CDP/10/4, June 2010	
A. Address underlying causes	Everyone is aware of the value of biodiversity and the steps they can take to conserve and use it sustainably	<b>(</b>
	Biodiversity is integrated into national and local development and planning processes	
	Harmful incentives are eliminated or reformed and positive incentives are developed and applied	
	Governments and businesses have achieved or implemented plans for sustainable production and consumption	
P.	Loss, degradation and fragmentation of forest and other habitats is at least halved	<b>(</b>
	Overfishing and destructive fishing practices are eliminated	<b>—</b>
	7. Agriculture, aquaculture and forestry are managed sustainably	
8. Reduce pressures and promote sustainable use	Pollution is reduced to levels that are not detrimental to ecosystem function and biodiversity	
	<ol> <li>Invasive alien species are identified, prioritised and controlled or eradicated, and measures are in place to control pathways of introduction</li> </ol>	
	Pressures on corals and other vulnerable ecosystems impacted by climate change or ocean acidification are minimised	
C. Safeguard acosystems, species and genes	Terrestrial, inland-water, coastal and marine areas, especially those of particular importance for biodiversity, are conserved through comprehensive, representative and well-connected systems of effectively managed protected areas	<del>-</del>
	Extinction and decline of threatened species is prevented and their status improved	•
	13. Loss of genetic diversity in crop, livestock and wild relatives is halted	
fr.	<ol> <li>Ecosystems that provide essential services and livelihoods are safeguarded and/or restored, with equitable access</li> </ol>	
inhance be an blodk e id ecosyste	<ol> <li>Ecosystem resilience and the contribution of biodiversity to carbon stocks is enhanced, through conservation and restoration, including 15% of degraded ecosystems</li> </ol>	
	16. Access to genetic resources is enhanced and benefits shared	4
and the same of th	All parties have implemented effective national biodiversity strategies and action plans	<b>—</b>
	Traditional knowledge and practices are protected and their contribution to biodiversity conservation is enhanced	4
A SECOND	<ol> <li>Knowledge and technologies relating to status, trends and value of biodiversity are improved and shared</li> </ol>	
3 3 3	20. Human resources and financing for implementing CBD has increased.	







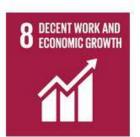




























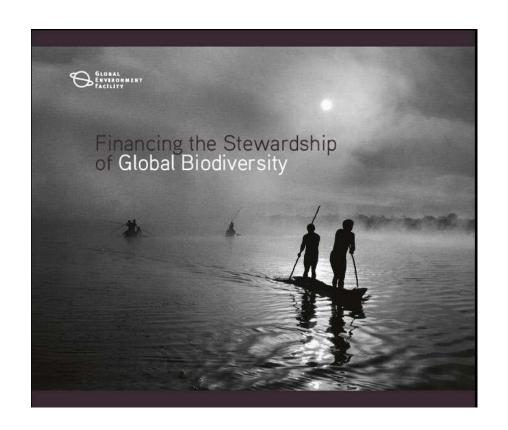






## **Guiding Conservation Funding Allocations**

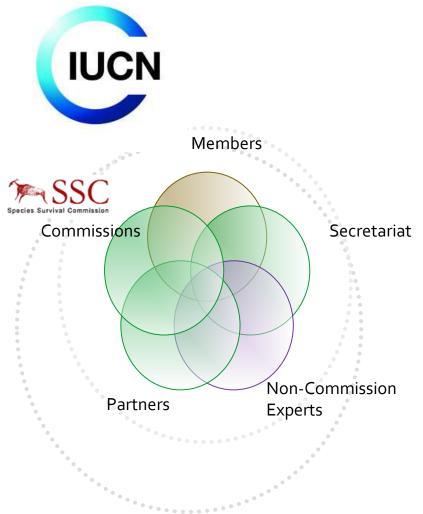






## 3. IUCN RED LIST ASSESSMENT PROCESS WHO IS INVOLVED?





#### Created in 1948

>1,500 member organizations (States, Government agencies, NGOs) from >170 countries

>1,000 staff (including Regional & Country Offices)

18,000 Commission members (scientists and experts)

~5,000 representatives from partner organizations

Many experts that are not Commission members

Official observer to the UN General Assembly





#### IUCN's species work: Commission and Programme

SSC Chair

Jon Paul Rodríguez



SSC Steering Committee

>7,500 volunteer experts in 100+ Specialist Groups and Task Forces

IUCN Species Survival Commission

#### **IUCN Secretariat**

IUCN Global Species
Programme

**Biodiversity Assessment Unit** 

Freshwater Biodiversity Unit

**Marine Biodiversity Unit** 

**Red List Unit** 

Species Information Service (SIS)

Species Trade & Use

Climate Change

**SSC Network Support** 

#### Who is involved?



LET'S WORK
FOR WILDLIFE

CONSERVATION
INTERNATIONAL

CONSE

Red List Partnership

IUCN Species Survival Commission Specialist Groups

Anyone can carry out a Red List assessment.



#### The IUCN Red List Unit

to publication

- Manage the IUCN Red List (SIS database, GIS data, web site)
- Develop/maintain standards
- Review assessments prior
- Petitions
- Workshop facilitation
- Capacity building
- Enquiries (e.g., media)
- Produce analyses and tools
- Support and technical advice























## Red List assessment process:

 Rigorous process ensures high quality assessments supported by strong data

> Final review by RLU

Publish on Red List

Review & Consistency

Assess species (independently/at workshop): Red List Category and Criteria + range map + supporting documentation

**Pre-assessment** (Project Managers or Assessors): convene experts and compile data, draft supporting documentation + range map

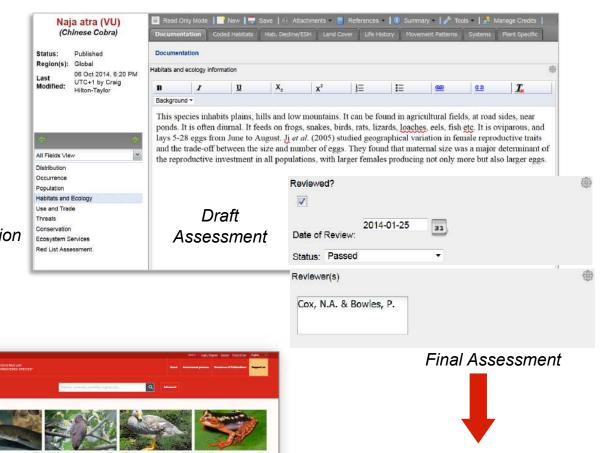
#### **Assessment Process**



Data compilation

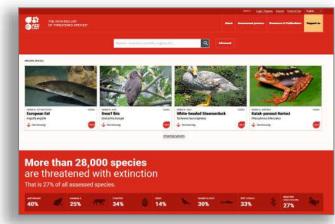


Assessment (workshop or individuals)

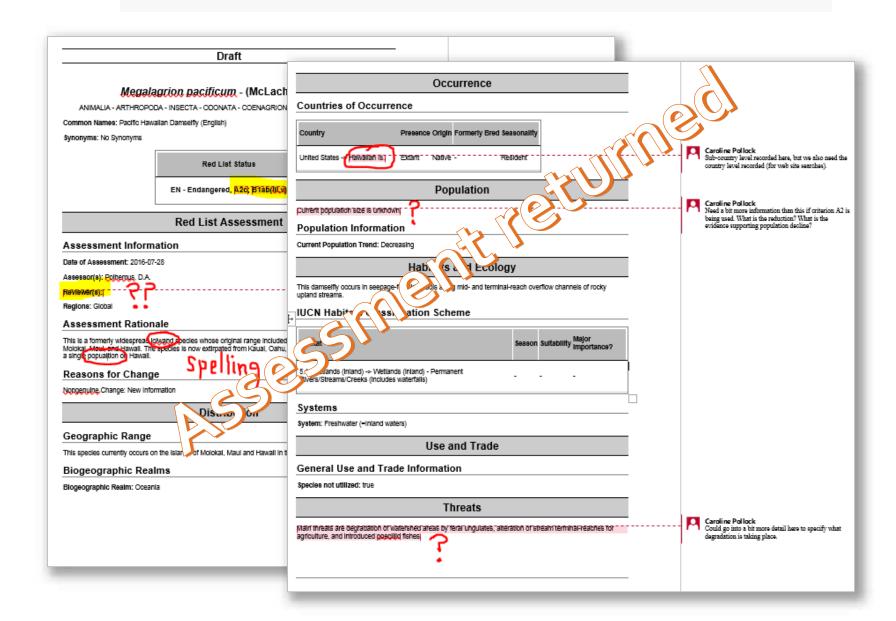


**IUCN Red** 

List Unit



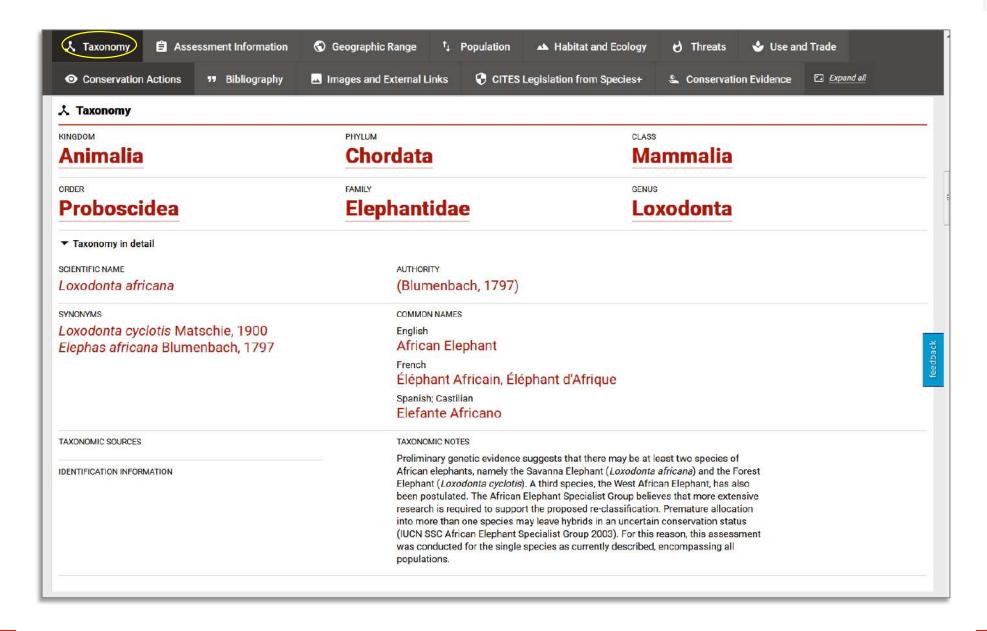
#### **Red List Unit: Final Checks**





#### 4. DOCUMENTATION AND TOOLS







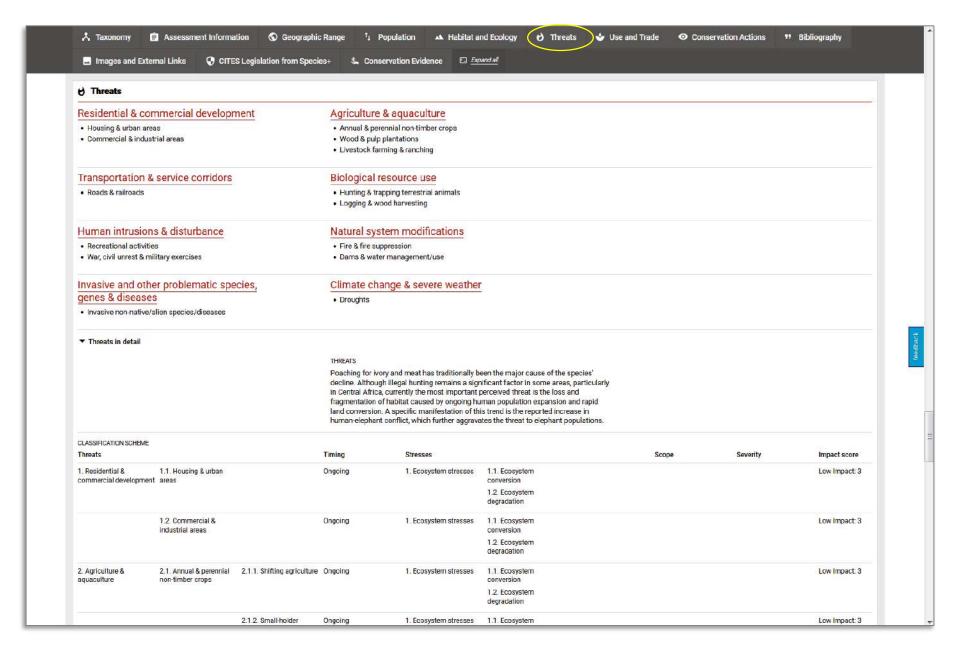


Images and External Links	from Species+	
NATIVE Extant (resident) Angola; Benin; Botswana; Burkina Faso; Came African Republic; Chad; Congo; Congo, The De Republic of the; Côte d'Ivoire; Equatorial Guine Ethiopia; Ghana; Guinea; Guinea-Bissau; Kenya Malawi; Mali; Mozambique; Namibia; Niger; Ni Senegal; Sierra Leone; Somalia; South Africa; S Tanzania, United Republic of; Togo; Uganda; Zi Zimbabwe Extinct Burundi; Gambia; Mauritania Extant Gabon	emocratic ea; Eritrea; a; Liberia; igeria; Rwanda; South Sudan;	
NUMBER OF LOCATIONS	UPPER EL EVATION LIMIT	
	LOWER ELEVATION LIMIT	
▼ Geographic Range in detail		
ESTIMATED AREA OF OCCUPANCY (AOO) (KM²)	African Elephants currently occur in 37 countries in sub-Saharan Africa (see accompanying map in Supplementary Material, sourced from Blanc et al. 2007). They are known to have become nationally extinct in Burundi in the 1970s, in The Gambia in 1913, in Mauritania in the 1980s, and in Swaziland in 1920, where they were reintroduced in the 1980s and 1990s.  Although large tracts of continuous elephant range remain in parts of Central, Eastern and Southern Africa, elephant distribution is becoming increasingly fragmented across	
CONTINUING DECLINE IN AREA OF OCCUPANCY (ACO)		
EXTREME FLUCTUATIONS IN AREA OF OCCUPANCY (AOO)		
ESTIMATED EXTENT OF OCCURRENCE (EOO) (KM²)		
ESTIMATED EXTENT OF OCCURRENCE (EOO) (KM-)	and Southern Artica, elephant distribution is becoming increasingly fragmented across the continent.	
CONTINUING DECLINE IN EXTENT OF OCCURRENCE (EOO)		
	The quality of knowledge available on elephant distribution varies considerably across the species' range. While distribution patterns are well understood in most of Eastern, Southern and West Africa, there is little realishie information on elephant distribution for	
CONTINUING DECLINE IN EXTENT OF CCCURRENCE (ECO)	The quality of knowledge available on elephant distribution varies considerably across the species' range. While distribution patterns are well understood in most of Eastern, Southern and West Africa, there is little reliable information on elephant distribution for much of Central Africa.	



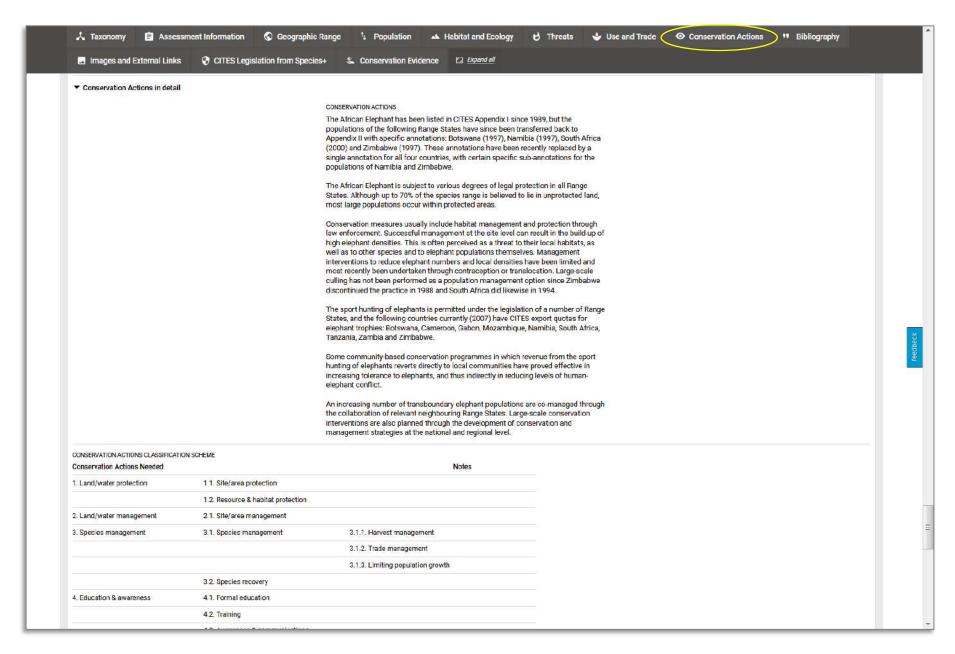
Images and External Links 😲 CITES Legislat	ion from Species+ 💲 Conservation Evidence 🖾 <u>Expand all</u>	
↑ Population		
CURRENT POPULATION TREND  Increasing	NUMBER OF MATURE INDIVIDUALS	
POPULATION SEVERELY FRAGMENTED NO	CONTINUING DECLINE OF MATURE INDIVIDUALS	
▼ Population in detail		
EXTREME FLUCTUATIONS	DESCRIPTION	
NO. OF SUBPOPULATIONS	Although elephant populations may at present be declining in parts of their range, major populations in Eastern and Southern Africa, accounting for over two thirds of all known elephants on the continent, have been surveyed, and are currently increasing at	
CONTINUING DECLINE IN SUBPOPULATIONS	an average annual rate of 4.0% per annum (Blanc <i>et al.</i> 2005, 2007). As a result, more than 15,000 elephants are estimated to have been recruited into the population in 2006	
EXTREME FLUCTUATIONS IN SUBPOPULATIONS	and, if current rates of increase continue, the number of elephants born in these populations between 2005 and 2010 will be larger than the currently estimated total	
ALL INDIVIDUALS IN ONE SUBPOPULATION	number of elephants in Central and West Africa combined. In other words, the magnitude of ongoing increases in Southern and Eastern Africa are likely to outweigh the magnitude of any likely declines in the other two regions.	
NO. OF INDIVIDUALS IN LARGEST SUBPOPULATION	Supplementary Information	
A Habitat and Ecology SYSTEM Terrestrial	Desert, Artificial/Aquatic & Marine, Savanna, Shrubland, Grassland, Forest, Artificial/Terrestrial, Wetlands (inland)	
GENERATION LENGTH (YEARS)	CONTINUING DECLINE IN AREA, EXTENT AND/OR QUALITY OF HABITAT	
CONGREGATORY		
MOVEMENT PATTERNS Full Migrant		
Full Migrant	HABITAT AND ECOLOGY:	



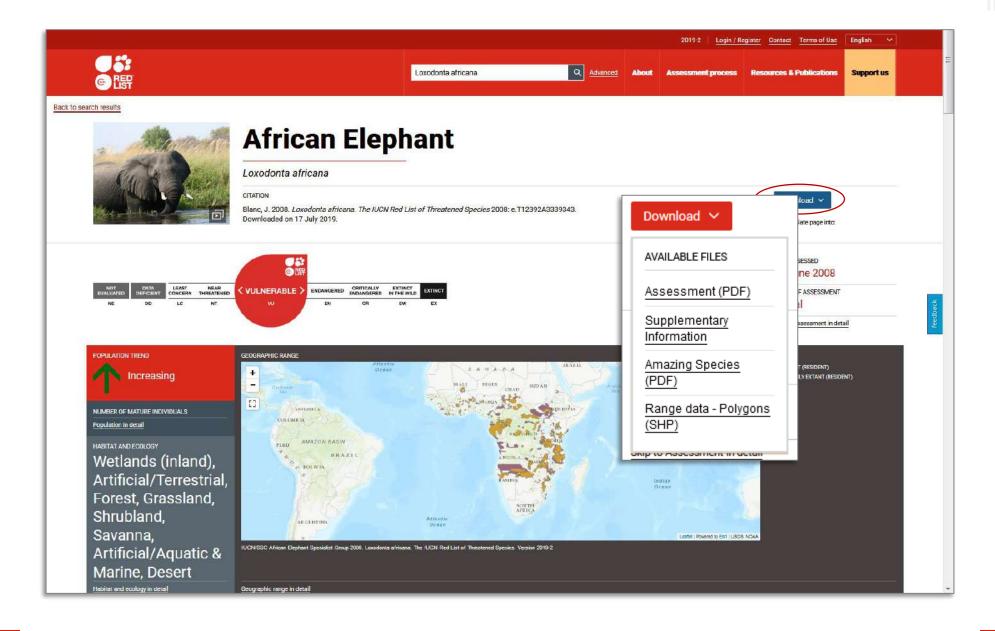










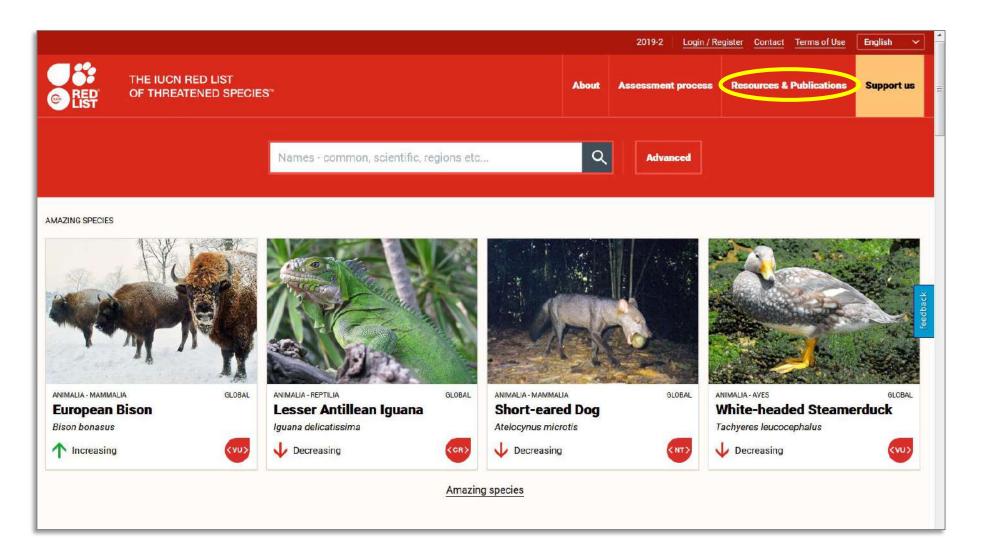




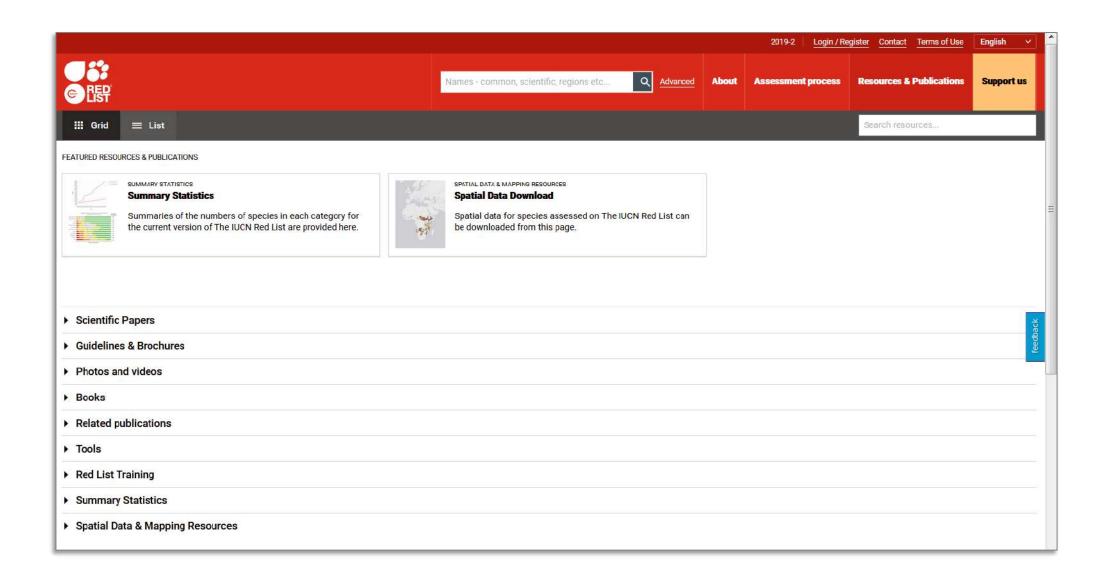
# **Resources and Support**

IUCN Red List website: <a href="https://www.iucnredlist.org">www.iucnredlist.org</a>

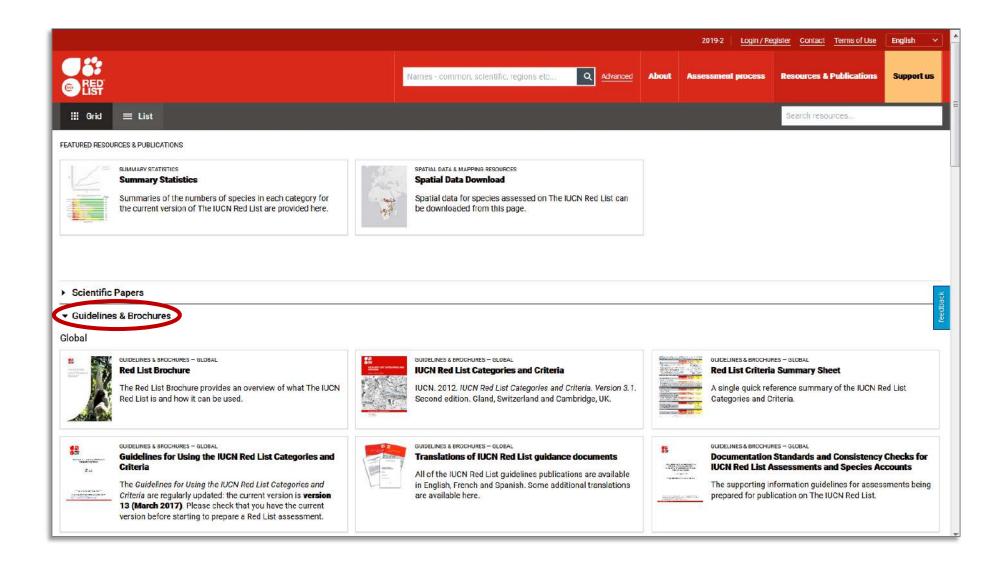
Red List Unit: redlist@iucn.org



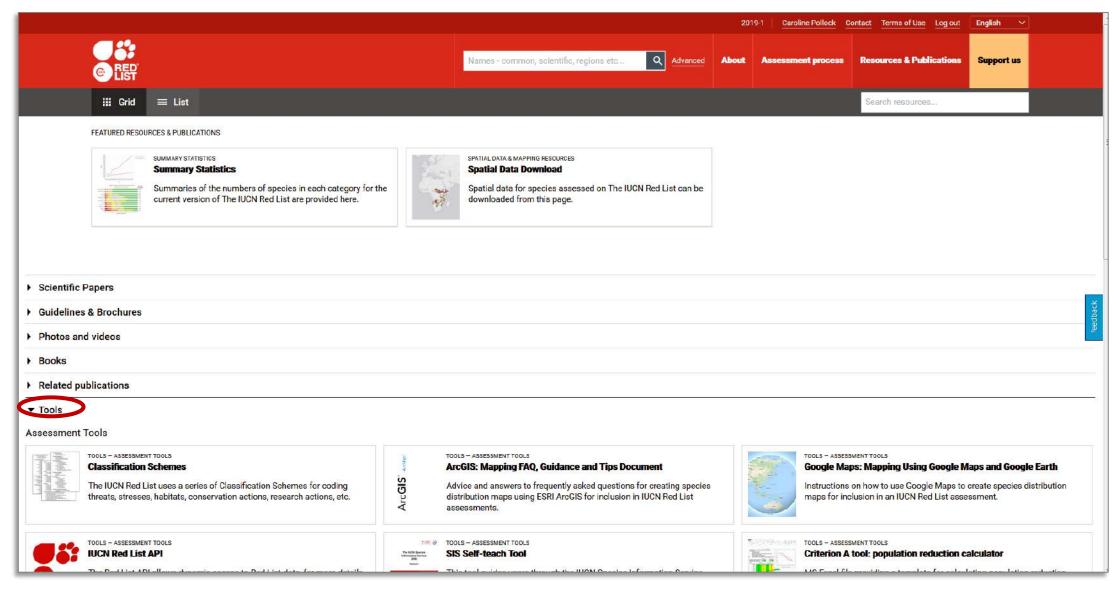




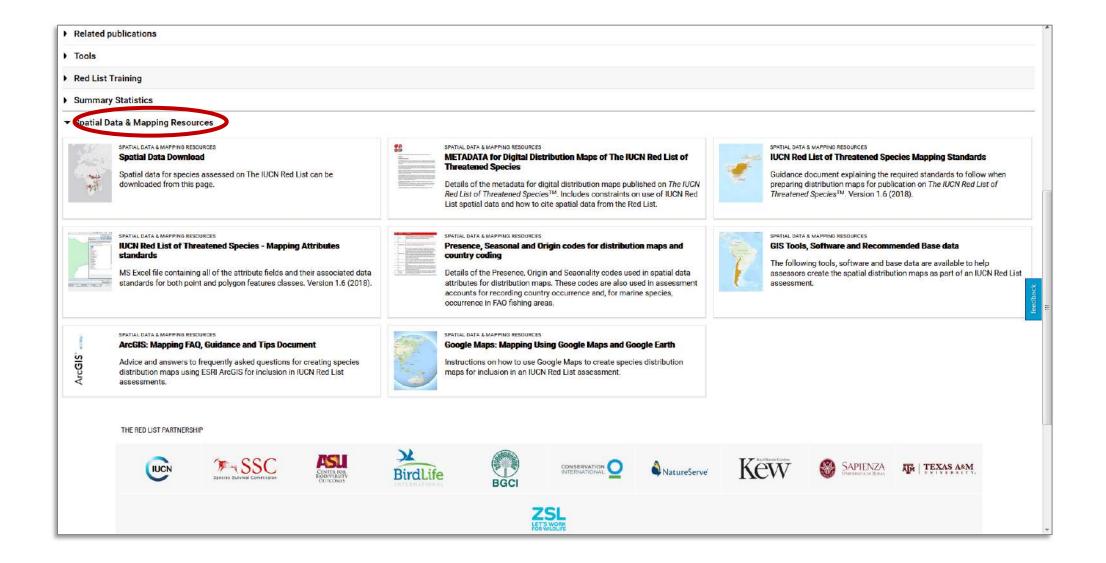














- Scientific Papers
- Guidelines & Brochures
- ▶ Photos and videos
- **▶** Books
- ▶ Related publications
- Tools

### ▼ Red List Training

### Workshops



RED LIST TRAINING - WORKSHOPS

### **IUCN Red List Training Workshops**

Red List training can be provided through IUCN Red List Assessor Training workshops.

### Online



RED LIST TRAINING - ONLINE

### **Online Red List Training**

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A free online IUCN Red List Training course is available for anyone who would like to learn more about red listing.

- Summary Statistics
- Spatial Data & Mapping Resources







# Online IUCN Red List Training Course

https://www.conservationtraining.org/



An African bush elephant (Loxodonta africana) at the Lewa W in Northern Kenya, Photo credit: © Ami Vitale for The Nature



Module 1: Introduction to the IUCN Red List

The IUCN Red List assesses the relative risk of species becoming extinct and monitors that risk over time. This module introduces you to the IUCN Red List, and highlights how IUCN Red List data is used to inform and catalyse conservation action.

35 minutes 2 activities



Module 2: IUCN Red List Assessments

This module provides an overview of what an IUCN Red Liet assessment is and how to transform raw data into a published IUCN Red List assessment.

40 minutes 2 activities



#### Module 3: IUCN Red List Categories and Criteria

To carry out an IUCN Red List assessment, you need to fully understand the IUCN Red List Categories and Criteria. This module covers all aspects of the IUCN Red List Categories and Criteria and how to use this methodology to assess a species' extinction risk.

6 hours 11 activities



Module 4: Supporting Information for IUCN Red List Assessments

In this module, you will learn what supporting information is required before your assessment can be published on the IUCN Red List.

30 minutes 1 activity





#### Module 5: IUCN Red List Mapping Standards

A distribution map is important to support the Red List assessment and to allow useful analyses of spatial data for threatened species. Use this module to learn how to create a distribution map that meets all the requirements of the IUCN Red List mapping standards.

30 minutes 1 activity





#### Module 6: IUCN Species Information Service

The IUCN Species Information Service (SIS) is a centralized online database used for storing, managing and publishing data on the IUCN Red List. This module explains more about what SIS is, who can access it, and how to use the system.

45 minutes 3 activities

Enter >

#### Enter >



#### Module 7: Regional IUCN Red List Assessments

Regional Red Lists are important tools for conservation, informing and influencing concervation policies, actions, and decision-making at regional and national levels. This module outlines how to use the IUCN Red List me

60 minutes 2 activities

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#### Enter >



#### Final Exam

in order to receive a Certificate of Achievement for the course, you must complete the final IUCN Red List Assessor Exam for Global or Regional Assessors with a minimum grade of 75%.

1-2 hours 1 activity

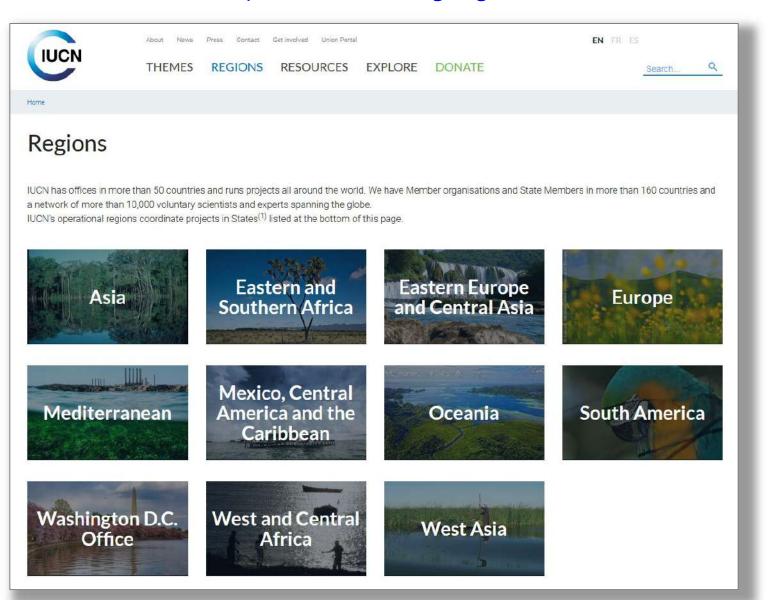
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# **IUCN Regional & Country Offices**

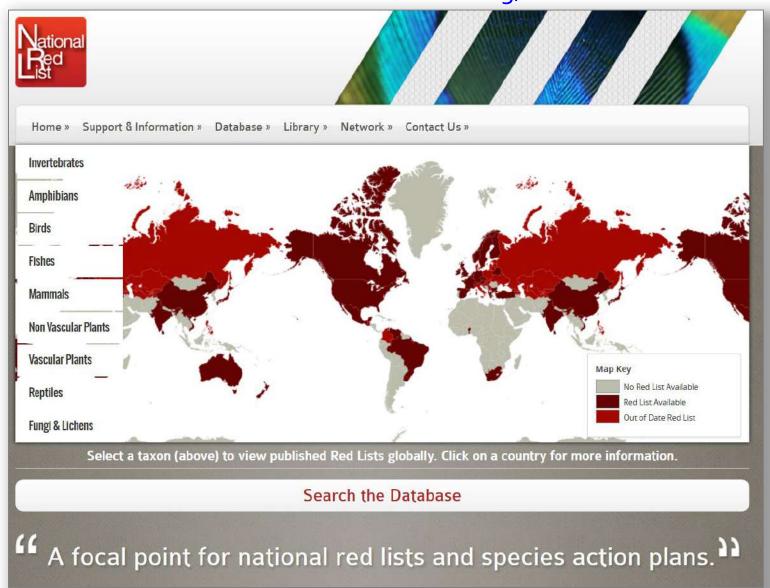
https://www.iucn.org/regions





# **National Red List Web Site**

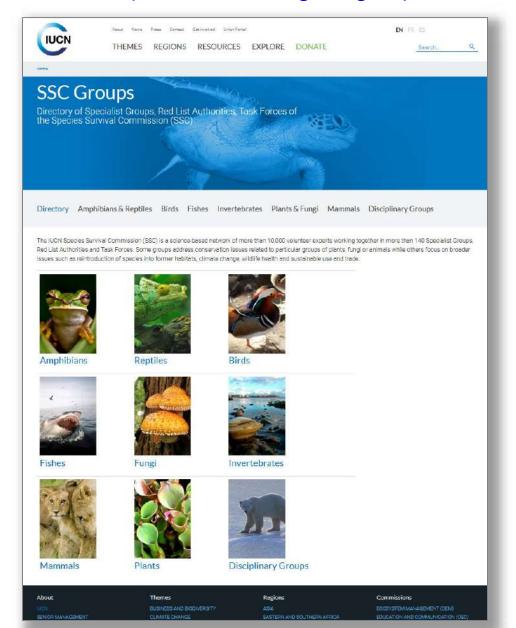
www.nationalredlist.org/





# **SSC Specialist Groups & Red List Authorities**

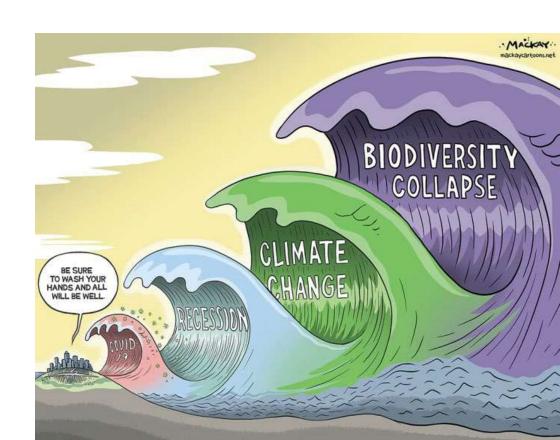
https://www.iucn.org/ssc-groups



SIS RL Database

**IUCN Red List** 

Orchis patens



### Q&A

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Aline Pérez-Graber, IUCN SSC Mediterranean Plant Specialist Group

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