



BEeS

The LifeWatch ERIC Biodiversity & Ecosystem eScience Conference

Seville
22-24/05/23



Threats and challenges to biodiversity and ecosystem conservation from an eScience perspective



UNIÓN EUROPEA
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Una manera de hacer Europa



**Improving biodiversity conservation: the role of the sRedList platform in
streamlining and standardising Red List assessments**

Presenter: Francesco De Leo

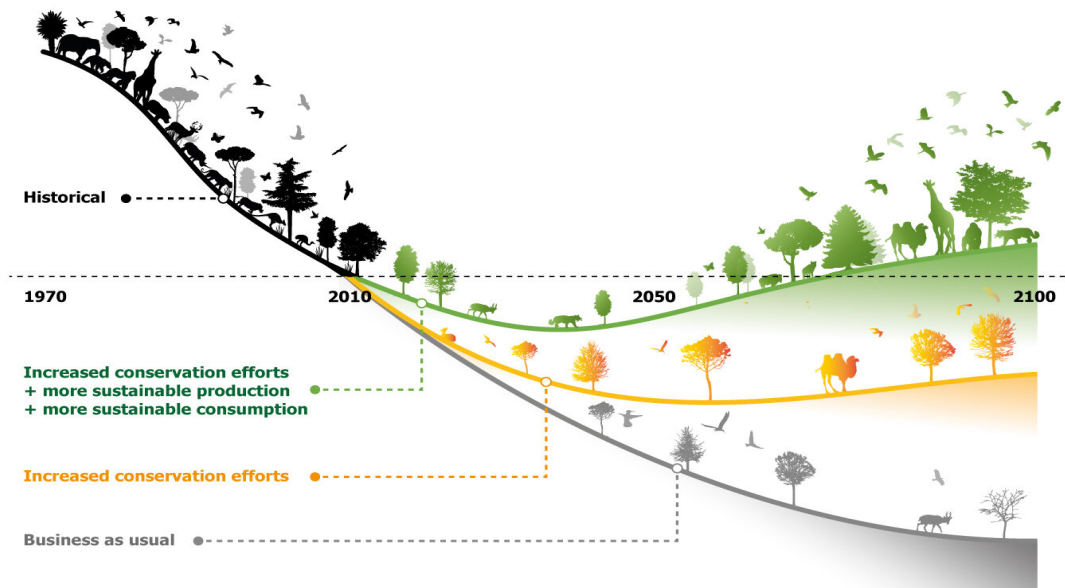
Improving biodiversity conservation: the role of the sRedList platform in streamlining and standardising Red List assessments

Francesco De Leo, Giuseppe Turrisi, Luca Santini, Victor Cazalis, Moreno Di Marco, Alberto Basset, Ilaria Rosati

**iDiv**SAPIENZA
UNIVERSITÀ DI ROMA

Coordinated efforts can play a crucial role in reversing the alarming trends in global biodiversity.

Accurate biodiversity status information is essential for effective conservation planning and sustainable actions.



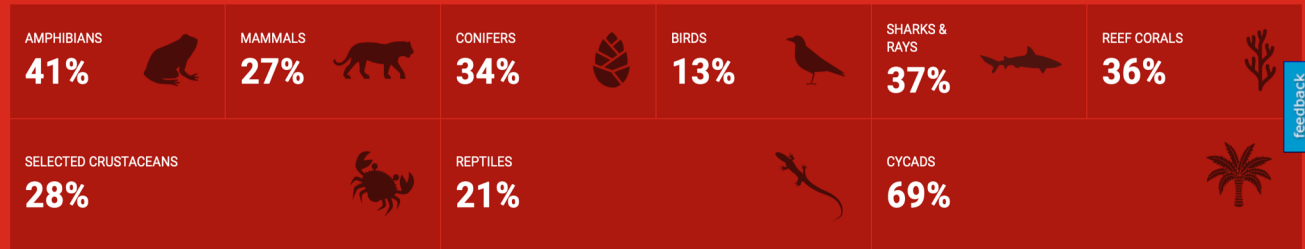
This artwork illustrates the main findings of the article, but does not intend to accurately represent its results (<https://doi.org/10.1038/s41586-020-2705-y>)

Estimated recent and future global biodiversity trends resulting from land-use change, with and without coordinated efforts to reverse trends

The IUCN Red List (RL) of Threatened Species established in the 1964 today, with more than 150.300 species, is the most comprehensive source of information

More than 42,100 species are threatened with extinction

That is still 28% of all assessed species.



feedback

Take action

Help us make The IUCN Red List a more complete barometer of life.

Source: <https://www.iucnredlist.org>

Red list in number

Number of assessors: **more than 1500** Assessors are drawn from various countries Worldwide.



Number of species assessed: currently 150,000 species are assessed and there are **10,000-15,000 assessments made every year**

Assessments cover all groups 600 fungi, >60,000 plants, >25,000 invertebrates, >60,000 vertebrates



Birds



Amphibians



Mammals



Fishes



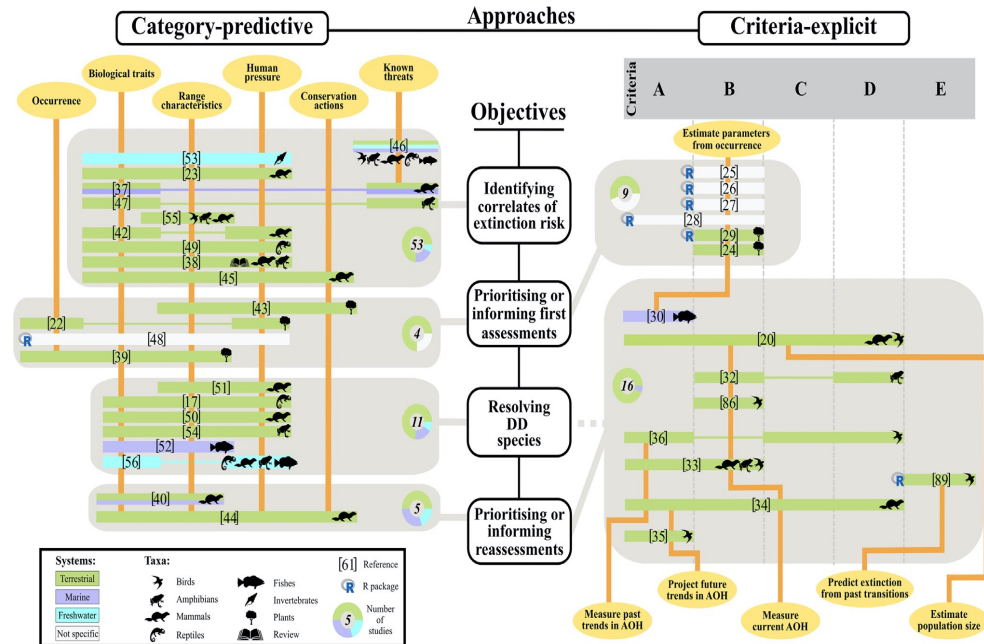
Invertebrates



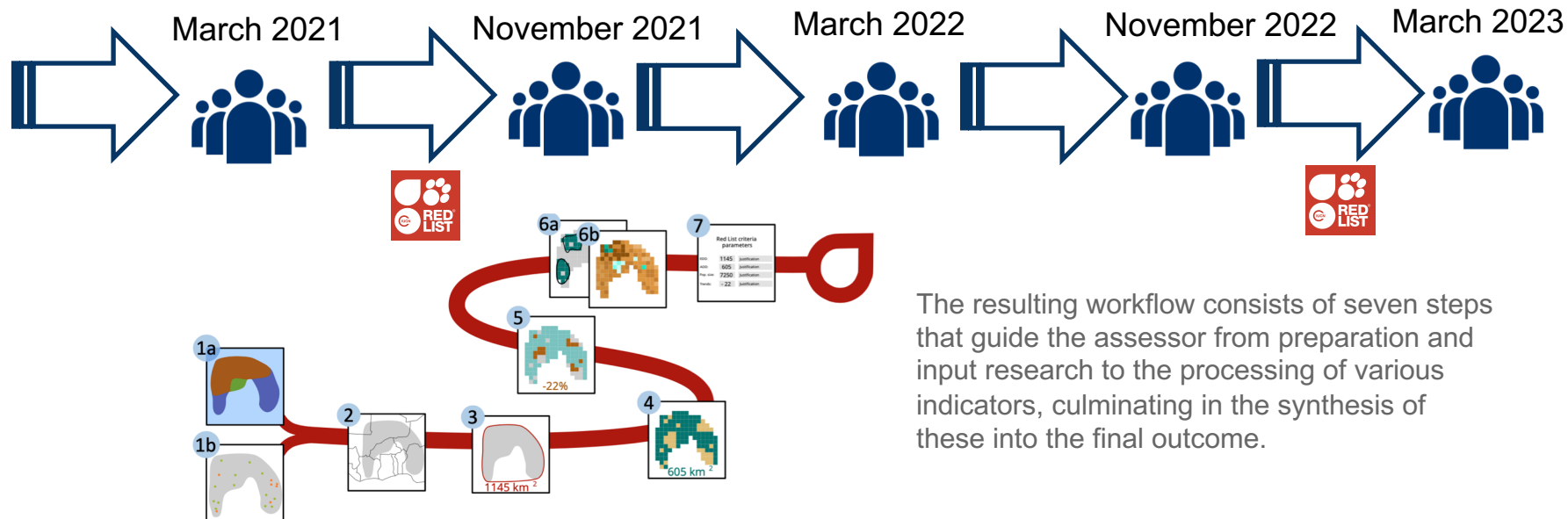
Plants

The challenges in Red List assessments include publications disregarding guidelines, a mismatch between assessor needs and researcher interests, limited applicability of certain methods, data scarcity, assessors lacking necessary skills and capacity, and the need for integrating new methods into the database for improved usability and adoption.

With 21,000 species (18% of those assessed) currently having outdated assessments, the limited resources for updating assessments pose a sustainability concern, potentially risking the viability of the Red List without a streamlined assessment strategy.

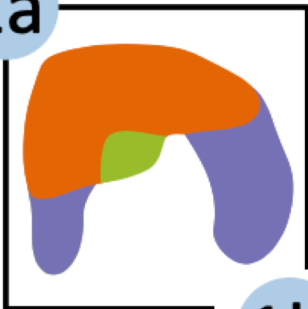

 Cazalis et.al 2022 <https://doi.org/10.1016/j.tree.2021.12.002>

sRedList platform Road map



sRedList platform: input

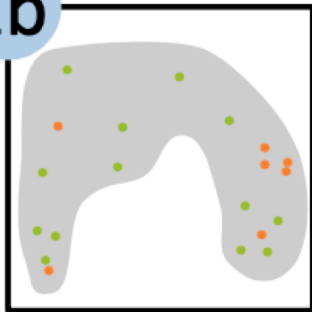
1a



Charge and
edit
distribution

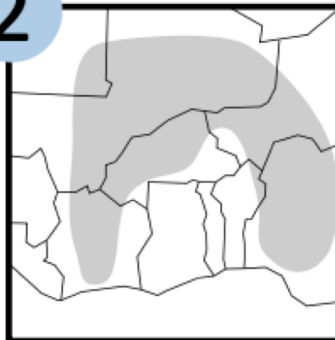
or

1b



Create
distribution
map

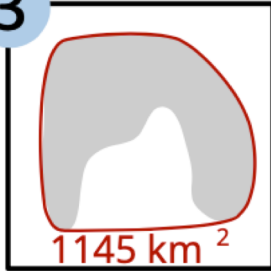
2



Filter occurrence
for domain or
Countries

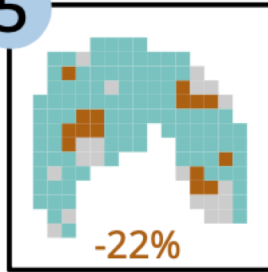
sRedList platform: process

3



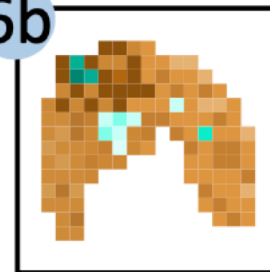
Calculate extent of occurrence: EOO

5



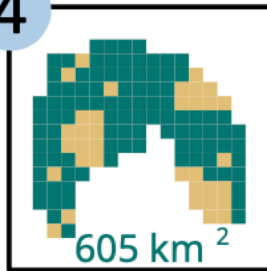
Calculate Trends in Area of Habitat

6b



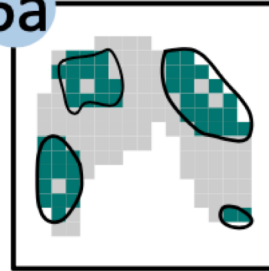
Calculate trends in human density and forest cover

4



Calculate Area of Habitat (AOH) and Area Of Occupancy AOO

6a



Calculate habitat fragmentation

sRedList platform: results

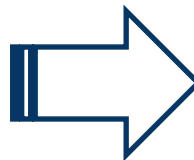
7

Red List criteria parameters

EOD:	1145	Justification
AOD:	605	Justification
Pop. size:	7250	Justification
Trends:	- 22	Justification

Edit estimates and text:

- 1) Fill or edit taxonomy, parameters
- 2) Visualise triggered category and criteria
- 3) Download zip file



<https://www.iucnredlist.org/assessment/sis>

sRedList platform: demo



Home

Assessor
guest

Login >

Welcome on the sRedList Platform

<http://193.204.79.102/sredlist>

This platform is a joined effort between the [sRedList working group](#) and [LifeWatch Italy](#), aiming to facilitate and streamline the work of Red List assessors. By providing an easy and interactive analyses, we aim to improve the consistency of the assessments across experts and taxa, while not limiting expert judgement in the evaluation. Every product of the platform can be directly submitted to SIS Connect.

It currently enables for instance:

- Creating a distribution from online available or uploaded occurrence data
- Mapping species Area of Habitat and calculating trends in Area of Habitat
 - Extracting Countries of Occurrence of the species
 - Calculating trends in forest cover in species' range
 - Calculating population severe fragmentation

More information is available in the platform [cheatsheet](#), the [platform documentation](#), or [video tutorials](#). You can also find more information and ask questions on the [forum](#).

Other tools to support Red Listing are listed [here](#).



Citation: If you use the sRedList platform in an assessment, please cite it as: sRedList Working Group (2023). The sRedList platform - a tool to support Red List assessments, version 2023.0.



DEMO: https://drive.google.com/file/d/1it5u68bXMNk_V8upltOk7FO4V96UruOU/view



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Thank you! | www.lifewatch.eu/bees-2023

