

Technical tools for the RLE

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Overview

Expectations for this presentation

- Present technical tools & regional support
 - Overview of code repository
 - General workflow example
 - Regional assessment & visualisation
- Regional collaboration & capacity building
 - Overview of proposed engagement strategy
 - Provisional regional schedule

Technical tools & regional support

Generalisation of WIO regional analysis code

The screenshot shows a GitHub repository page for 'cordio-ea_iucn_regional-rle_coral_reefs'. The repository is public and has 1 star, 5 watchers, and 0 forks. The repository description is 'General framework for RLE evaluation of coral reef ecosystems'. The repository contains several files and folders, all committed 3 days ago. The files include 'analysis_code', 'creation_code', 'data', 'data_intermediate', 'data_raw', 'figures', 'reporting', '.gitignore', 'README.md', and 'integrate.R'. The repository also has a README file. The repository is created by 'franzinho' and has 2 commits. The repository is currently on the 'main' branch. The repository is currently on the 'main' branch. The repository is currently on the 'main' branch.

File/Folder	Commit Message	Commit Date
analysis_code	initial commit	3 days ago
creation_code	initial commit	3 days ago
data	initial commit	3 days ago
data_intermediate	initial commit	3 days ago
data_raw	initial commit	3 days ago
figures	initial commit	3 days ago
reporting	initial commit	3 days ago
.gitignore	initial commit	3 days ago
README.md	Create README.md	3 days ago
integrate.R	initial commit	3 days ago

About
General framework for RLE evaluation of coral reef ecosystems

- Readme
- Activity
- Custom properties
- 1 star
- 5 watching
- 0 forks

Releases
No releases published
[Create a new release](#)

Packages
No packages published
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Languages
R 100.0%

Wiki guide to analysis

red-list-ecosystem / cordio-ea_iucn_regional-rle_coral_reefs

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franzinho edited this page 3 days ago · [2 revisions](#)

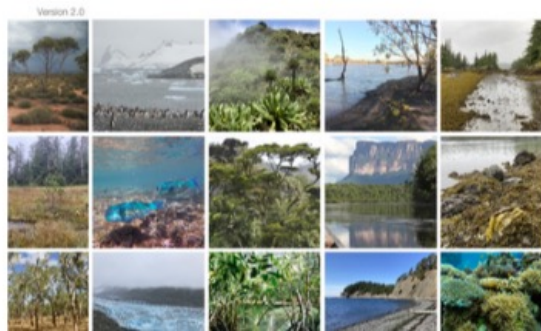
Welcome to the **CORDIO-EA IUCN Red List for Ecosystems for Coral Reefs** wiki!

The [Red List of Ecosystems](#) (RLE) provides a global framework for assessing the risk of collapse for ecosystems and serves as an additional tool to support resource use and conservation planning. This methodology, based on a similar framework to the [Red List of Threatened Species](#), provides a consistent and standardised approach for evaluating ecosystems risk of collapse. The RLE is also a Headline indicator for the Kunming-Montreal Global Biodiversity Framework.



Guidelines for the application of IUCN Red List of Ecosystems Categories and Criteria

Edited by D.A. Keith, J.R. Ferrer-Paris, S.M.M. Ghoraba, S. Henriksen, M. Monyeke, N.J. Murray, E. Nicholson, J. Rowland, A. Skowno, J.A. Slingsby, A.B. Storeng, M. Valderrábano and I. Zager



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Overview of approach & definitions

red-list-ecosystem / cordio-ea_iucn_regional-rle_coral_reefs

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Ecosystem definition and RLE categories

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franzinho edited this page 3 days ago · [1 revision](#)

Context

The IUCN Red List of Ecosystems is a global standard for assessing the risk to ecosystems, based on a standardised [typology of ecosystems](#). This project focuses on the application of the RLE evaluation methodology to **coral reefs**.



IUCN Global Ecosystem Typology 2.0

Descriptive profiles for biomes and ecosystem functional groups

David A. Keith, Jose R. Ferrer-Paris, Emily Nicholson and Richard T. Kingsford (editors)



The IUCN RLE includes eight categories organised in a hierarchy where ecosystem collapse increases from the *Least Concern (LC)* to *Critically Endangered (CR)* and specifically identifies

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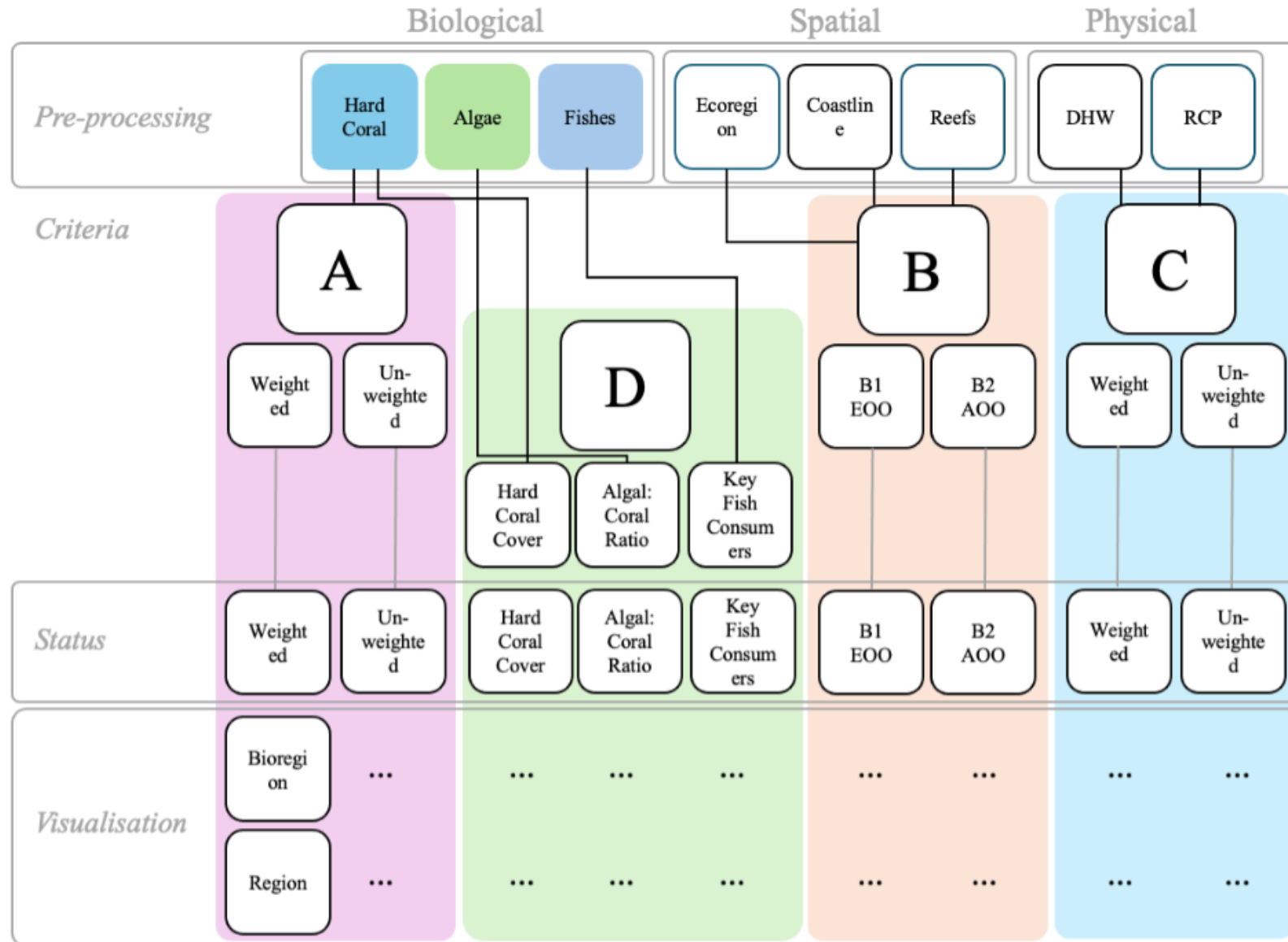
Evaluation of criteria

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General workflow



Description of data format & standardisation

red-list-ecosystem / cordio-ea_iucn_regional-rle_coral_reefs

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Data template for coral reef RLE analysis

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Context

The benefit of using the GCRMN classification of MEOW Ecoregions into regional monitoring nodes and adhering to GCRMN data collection standards means that users can readily adopt the code in this repository to suit their particular **Area of Assessment**.

This repository provides an example data set of simulated data for the WIO (Western Indian Ocean) region to allow users to test the code and explore the workflow for the RLE analysis.

This wiki page provides an overview of the data template for the analysis, focused on *percent cover* data typical of coral reef monitoring. The intent is that users can modify their data to adhere to a similar format (i.e. average percent cover by taxa and year for each site).

Example data

The basic template of coral reef monitoring data is organised by `Ecoregion`, `Year`, site position information, taxa codes (i.e. `level1_code`) and average `percent_cover`. The example simulated data for the WIO region provided in this repository looks something like this:

Ecoregion	Year	Reef_zone	Latitude	Longitude	level1_code	percent_cover
Delagoa	2008	Reef_flat	-27.5209	32.6867	ACOR	0.676
Delagoa	2008	Reef_flat	-27.5209	32.6867	HC	4.203
Delagoa	2008	Reef_flat	-27.5209	32.6867	ALG	42.257
Delagoa	2008	Reef_flat	-27.5209	32.6867	INV	6.023
Delagoa	2008	Reef_flat	-27.5209	32.6867	ATRF	0.742
Delagoa	2008	Reef_flat	-27.5209	32.6867	DC	0.393
Delagoa	2008	Reef_flat	-27.5209	32.6867	SC	5.274
Delagoa	2008	Reef_flat	-27.5209	32.6867	SND	4.373
Delagoa	2008	Reef_flat	-27.5209	32.6867	TWS	0.447
Delagoa	2009	Reef_flat	-27.5209	32.6867	ACOR	1.352
Delagoa	2009	Reef_flat	-27.5209	32.6867	HC	18.397
Delagoa	2009	Reef_flat	-27.5209	32.6867	ALG	5.597

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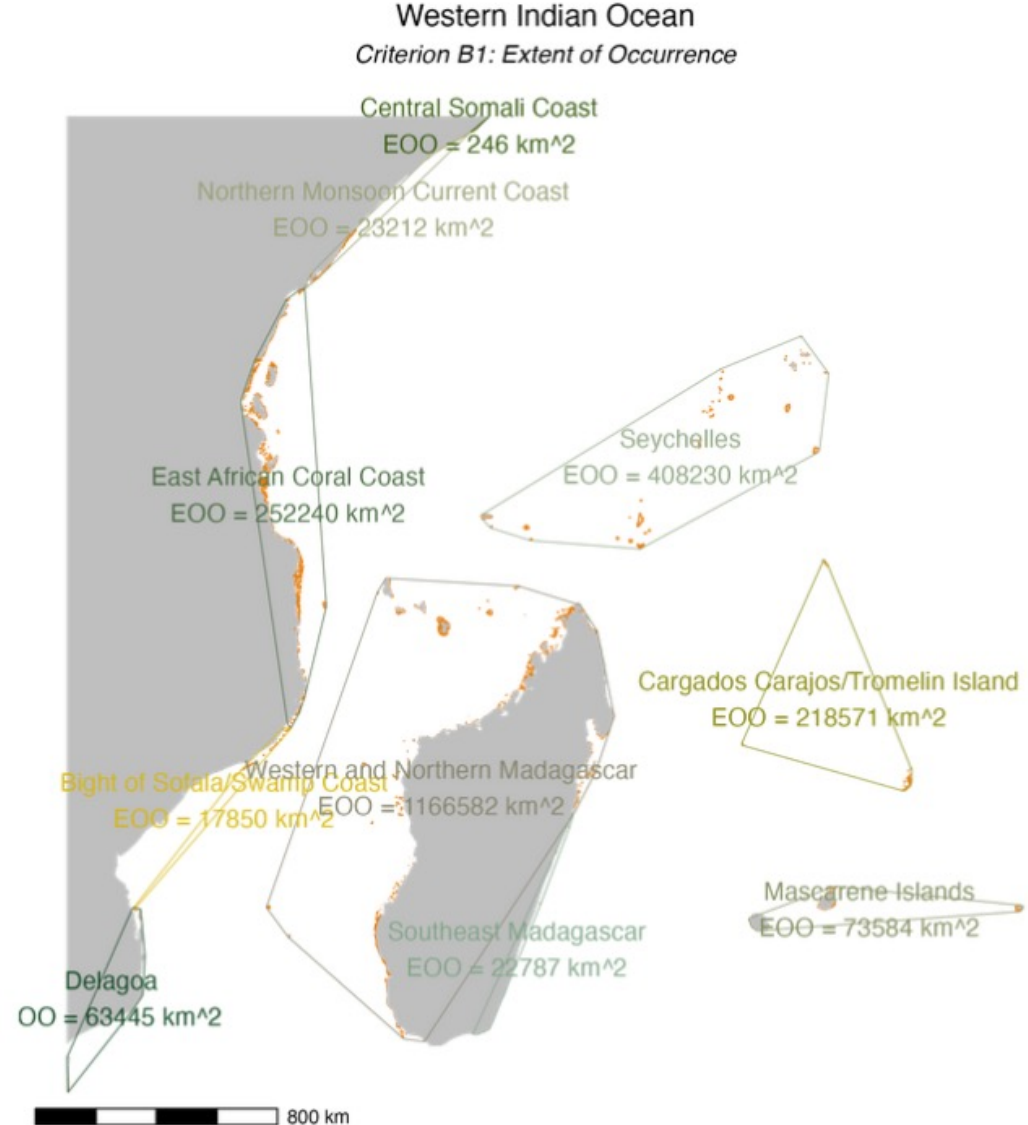
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Evaluation & visualisation tools



```
## -- plot regional data -- ##  
# set region name
```



Lessons learned from general adaptation

- Need for consistent standards
 - Ecoregion template and “Area of Assessment”
 - Pre-processing of monitoring data
 - Definition of thresholds
- Code repository aims to:
 - Provide standards and templates for core criteria
 - Visualisation at ecoregion and regional levels
- Development of strategy for regional capability
 - Training for repository use & knowledge management
 - Consistent application of standards
 - Assist with pre-processing, reporting needs
 - Strengthen regional collaboration

Regional collaboration & capacity
building

Leverage knowledge of GCRMN regional nodes

