# IUCN RED LIST

of

# ECOSYSTEMS ASSESSMENTS

##### [www.iucnrle.org](http://www.iucnrle.org)

*Please choose appropriate assessment icon and place next to ecosystem name then delete others.*

**NE**

**DD**

**LC**

**VU**

**EN**

**NT**

**CR**

**CO**

Ecosystem Name

#### Author Name1\* and A. N. Author2

*1* *Department, University/organization/others, City postcode, Country*

*2 Department, University/organization/others, City postcode, Country*

**Abstract** (*250 - 300 words maximum)*

*This summary should include the area of assessment (spatial distribution), risk categories outcome for all subcriterion assessed and the overall risk category assigned (highest risk category determined for any of the subcriterion) following the precautionary principle. The summary should end with rationale behind why the assessment was performed and mention any uncertainties in the data used and any interpretations necessary for understanding the results.*

{{Abstract text}}

**Citation:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Criterion** | | **A** | **B** | **C** | **D** | **E** | **Overall** |
| Subcriterion 1 | | NE | NE | NE | NE | NE | NE |
| Subcriterion 2 | | NE | NE | NE | NE | NE |
| Subcriterion 3 | | NE | NE | NE | NE | NE |
|  | CR: Critically Endangered, EN: Endangered, VU: Vulnerable, NT: Near Threatened, LC: Least Concern, DD Data Deficient, NE: Not Evaluated | | | | | | |

Author surname, Initials. (Year). ‘*IUCN Red List of Ecosystems*, Title of assessment’.

**Corresponding author:**

Email: Click or tap here to enter text.

**Keywords:**

word; another word; lower case except names

**Ecosystem classification:**

Enter text here.

**Assessment’s distribution:**

Enter text here.

**Summary of the assessment:**

Ecosystem name

**NE**

**NT**

**DD**

**LC**

**VU**

**EN**

**CR**

**CO**

* 1. Ecosystem Classification

IUCN **Global Ecosystem Typology (version 2.1, Keith *et al.* 2022):**

Ecosystem classification under the IUCN Global Ecosystem Typology: Name of the ecosystem type according to the IUCN [Global Ecosystem Typology](https://global-ecosystems.org/) classification system in relation to level 3 (Functional Groups) E.g.

Please mention the Version of the IUCN Global Ecosystem Typology used.

xxx Realm

xxx Biome

xxx Functional Group

xxx Regional Subgroups/ Global Types/ Sub global types

IUCN Habitats Classification Scheme (version 3.1, IUCN 2012):

*Ecosystem classification under the IUCN Habitats Classification Scheme: Name of the ecosystem type according to the IUCN Habitats Classification Scheme, e.g. Please mention the Version of the IUCN Habitat typology used.*

xxxx Major habitat group

xxxx Minor habitat group

**Other classification:** (optional)

Relevant ecosystem classification system used: include classification system name, system version if relevant and classification levels, e.g.

xxxx Major habitat group

xxxx Minor habitat group

* 1. Ecosystem Description

Spatial distribution

*Description that specifies the estimated area of the assessed ecosystem, that also includes description of the scope of the assessment (i.e., if only assessing specific ecosystem within national boundaries, that exist also beyond national jurisdiction). It should consider the use of accurate spatial distribution data and consider time series and projections (see Part III on application of Criteria A).*

{{Spatial distribution text}}

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Description automatically generated

**Image X**. Map of the ecosystem with source, author(s), title and description

Biotic components of the ecosystem (characteristic native biota)

*Description of characteristic and/or indicative species of the ecosystem: native species, functional/morphological groups. The characteristic native biota should demonstrate the “uniqueness” of the ecosystem assessed and the ecosystem description should reflect the functional role and dominance of these species.* *Should provide scientific names (and common names if possible) and when possible, provide exemplar photographs.*

{{Biotic components text}}

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Description automatically generated​

**Figure X:** Should provide exemplar photographs. Include scientific names (and common names if possible)

Abiotic Components of the Ecosystem

*Description of characteristics of physical environment: interactions of ecosystem with abiotic components, typology classification.*

{{Abiotic components text}}

Key processes and interactions

Description of key interactions and processes that govern ecosystem functioning within and between biotic and abiotic complexes (e.g., migrations, export of larvae, movement of nutrients and sediments, etc.).

* *Should include a conceptual model (diagram illustrating key processes and interactions) with title, author, and description, following the RLE Guidelines symbols.*
* *Focus on processes relevant to application of criteria C & D, and to the definition of the collapsed state.*
* *Where possible, 12 or fewer elements in the model*
* *Use narrative text to highlight areas of uncertainty in conceptual model.*

{{Key processes text}}

* 1. Ecosystem Threats and vulnerabilities

Main threatening process and pathways to degradation

Description of the main threats and pathways/processes to degradation that can lead to ecosystem collapse in the near future. The identified threats should cause perceptible symptoms that prove the ecosystem is at risk of collapsing (e.g., changes in ecosystem distribution, changes in the physical environment or disturbances in key interactions or processes within or between biotic or abiotic ecosystem components).

* *Identification of threats with reference to* [*IUCN Threat Classification Scheme*](https://www.iucnredlist.org/resources/classification-schemes)
* *Provide timing, scope, and severity for major threats where possible; if minor threats are provided (i.e., affect small proportion of ecosystem), then timing, scope and severity must be provided for all threats.*

{{Main threats and pathways to degradation text}}

Definition of the collapsed state of the ecosystem

##### *Description of what the “collapsed” state(s) of the ecosystem would look like relative to the main threats identified. It should include description of the biotic and abiotic parameters of the “collapsed” state(s), as well as that of useful proxies for understanding the “collapsed” state(s).*

##### *Collapse thresholds for the application of criteria A and B are typically defined as 100% loss of spatial distribution of the ecosystem type. Choosing a different collapse threshold for criterion A or B must be thoroughly justified.*

* *Collapse thresholds for the application of criteria C, D, and E should be identified as part of the assessment of those criteria.*
* *When possible, provide examples of locally collapsed occurrences of the ecosystem type to support their descriptions of collapsed states.*

{{Collapsed state definition text}}

Threat Classification

*Provide IUCN threat classification and version relevant to ecoregion :* [IUCN Threat Classification Scheme](https://www.iucnredlist.org/resources/classification-schemes)

{{Threat classification text}}

* 1. Ecosystem Assessment

Criterion A: Reduction in Geographic Distribution

*Summary of the ecosystem assessment according to criterion A and the resulting risk category that was determined using the precautionary principle.*

*Subcriteria A1, A2a, A2b, A3:*

*Describe the assessment results for each subcriterion. Justify the assessed risk level with quantitative estimates of change in geographic distribution. Please include length of the temporal series (indicate the years), estimates of area extent for the different points in time, and percentage of change in geographic distribution within the assessed period.*

*Documentation:*

* *Justify assumptions and alternative scenarios used to interpolate, extrapolate, or predict changes in distribution.*
* *Explain methods of calculation including collapse threshold.*
* *Where possible, describe source of spatial data (e.g., satellite sensor type), spatial resolution (i.e., grain size), and comment on accuracy.*

{{Text here}}

Criterion B: Restricted Geographic Distribution

*Summary of the ecosystem assessment according to criterion B and the resulting risk category that was determined using the precautionary principle.*

*Subcriteria B1, B2:*

*Give the value of the Extent of Occurrence (EOO) (area in km2 of the smallest convex polygon that encompasses the ecosystem occurrences), as well as the value of the Area of Occupancy (AOO) (number of 10x10 km cells occupied by the ecosystem at greater than 1% occupancy). Indicate if there is evidence of a continuing decline in geographic distribution, environmental quality or biotic interactions*

*- Provide current distribution maps used to estimate EOO, AOO.*

*- Where possible, describe source of spatial data (e.g. satellite sensor type), spatial resolution (i.e. grain size), and comment on accuracy.*

***Subcriteria B3:***

*Indicate the number of threat-defined locations (geographically or ecologically distinct areas in which a single threatening event can rapidly affect all occurrences of an ecosystem type) and describe, if evident, the threats or degradation processes that may cause the ecosystem to collapse or become Critically Endangered (CR) within a short period of time (i.e. within the next two decades).*

{{Text here}}

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Description automatically generated**

**Figure X:** AOO and EOO

Criterion C: Environmental Degradation

*Summary of the ecosystem assessment according to criterion C and the resulting risk category that was determined using the precautionary principle.*

***Subcriteria C1, C2a, C2b, C3****:*

*For each subcriterion, note the abiotic indicators/variables used to assess changes in ecosystem function, specifically representing abiotic degradation, and the collapse thresholds of these variables. Identify results of assessment for each sub-criterion, justifying assessed risk level with quantitative estimates of change in abiotic features (where appropriate).*

*Documentation:*

* *When possible, provide figures/tables illustrating temporal change in selected variable, and points of interpolation/extrapolation for the relevant time frame (i.e., 50 years ago, next 50 years, any 50-year time period, since ~1750)*

{{Text here}}

Criterion D: Disruption of biotic processes or interactions

*Summary of the assessment according to criterion D:*

*Summary of the ecosystem assessment according to criterion D and the resulting risk category that was determined using the precautionary principle.*

*Subcriteria D1, D2a, D2b, D3:*

*For each subcriterion, note the biotic indicators/variables used to evaluate changes in ecosystem function, specifically representing biotic degradation, and the collapse thresholds of these variables. Identify results of assessment for each sub-criterion, justifying assessed risk level with quantitative estimates of change in biotic features (where appropriate).*

*Documentation:*

*- When possible, provide figures/tables illustrating temporal variation in variable, and points of interpolation/extrapolation for the relevant time frame (i.e. 50 years ago, next 50 years, any 50-year time period, since ~1750)*

{{Text here}}

Criterion E: Quantitative Risk

*For criterion E, describe the type of simulation models used for the quantitative analysis that incorporates key ecosystem mechanisms and processes to estimate the probability of ecosystem collapse. Recommendations for the application of criterion E are given in the "Guidelines for the application of IUCN Red List of Ecosystems categories and criteria”. It is recommended to have the simulation model used published in a peer-reviewed journal and make the data and the corresponding code available.*

{{Text here}}

##### Overall status:

*Resume on the overall status.*

{{Text here}}

* 1. Summary of the Assessment

|  |  |  |  |
| --- | --- | --- | --- |
| **CRITERION** |  | | |
| **A. Reduction in Geographic Distribution** | **A1** | **A2** | **A3** |
| Past 50 years | Future or Any 50y period | Historical (1750) |
| NE | NE | NE |
|  |  | | |
| **B. Restricted Geo. Distribution** | **B1** | **B2** | **B3** |
| Extent of Occurrence | Area of Occupancy | # Threat-defined Locations < 5? |
| NE | NE | NE |
|  |  |  |  |
| **C. Environmental Degradation** | **C1** | **C2** | **C3** |
| Past 50 years (1970) | Future or Any 50y period | Historical (1750) |
| NE | NE | NE |
|  |  | | |
| **D. Disruption of biotic processes** | **D1** | **D2** | **D3** |
| Past 50 years (1970) | Future or Any 50y period | Historical (1750) |
| NE | NE | NE |
| **E. Quantitative Risk analysis** | NE | | |
| **OVERALL RISK CATEGORY** | NE | | |

* 1. References

*Please follow the Harvard format for bibliography*

**Authors:**

Authors

**Acknowledgments**

Acknowledgments

**Peer revision:**

Peer revision process

**Web portal:**

<http://iucnrle.org/>

**Disclaimer:**

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* 1. Appendices

*Optional suggestions below, please add others if needed.*

1. List of Key Species

*List of key species present in the ecosystem, including scientific name.*

1. List of Associated Species

*List of taxa at risk of extinction assessed in the Red List of Threatened Species database, and their risk.*