

Summary of the five criteria (A-E) used to evaluate the risk status of an ecosystem, based on Version 2.2 of the IUCN Red List of Ecosystems Categories and Criteria.

For details on definitions and methods for assessing the categories and criteria described below, please refer to Bland et al. (2017)¹ (available at: <https://iucnrl.org/resources/key-documents>).

A. Reduction in geographic distribution over ANY of the following time periods:			
	CR	EN	VU
A1 Past (over the past 50 years)	≥ 80%	≥ 50%	≥ 30%
A2a Future (over the next 50 years)	≥ 80%	≥ 50%	≥ 30%
A2b Any 50 year period (including the past, present and future)	≥ 80%	≥ 50%	≥ 30%
A3 Historical (since approximately 1750)	≥ 90%	≥ 70%	≥ 50%

B. Restricted geographic distribution indicated by ANY OF B1, B2 or B3:			
	CR	EN	VU
<p>B1 Extent of a minimum convex polygon (km²) enclosing all occurrences (extent of occurrence, EOO) is no larger than: AND at least one of the following (a-c):</p> <p>(a) An observed or inferred continuing decline in ANY of:</p> <ul style="list-style-type: none"> i. a measure of spatial extent appropriate to the ecosystem; OR ii. a measure of environmental quality appropriate to characteristic biota of the ecosystem; OR iii. a measure of disruption to biotic interactions appropriate to the characteristic biota of the ecosystem <p>(b) Observed or inferred threatening processes that are likely to cause continuing declines in geographic distribution, environmental quality or biotic interactions within the next 20 years.</p> <p>(c) Ecosystem exists at:</p>	<p>≤ 2,000 km²</p> <p>1 threat-defined location</p>	<p>≤ 20,000 km²</p> <p>≤ 5 threat-defined locations</p>	<p>≤ 50,000 km²</p> <p>≤ 10 threat-defined locations</p>
<p>B2 The number of 10 × 10 km grid cells occupied (area of occupancy, AOO) is no more than: AND at least one of a-c above (same as for B1).</p>	≤ 2	≤ 20	≤ 50
<p>B3 The number of threat-defined locations is very small (generally fewer than 5) AND prone to the effects of human activities or stochastic events within a very short time period in an uncertain future, and thus capable of Collapse or becoming Critically Endangered (CR) within a very short time period (B3 can only lead to a listing as VU).</p>			VU

IUCN threat categories:

CR: Critically Endangered, **EN:** Endangered, **VU:** Vulnerable.

1. Bland, L.M., Keith, D.A., Miller R.M, Murray, N.J & Rodríguez JP.(eds.) 2017. Guidelines for the application of the IUCN Red List of Ecosystems Categories and Criteria. Version 1.1. Gland Switzerland : IUCN.ix +99p.

C. Environmental degradation over ANY of the following time periods:		Relative severity (%)			
		Extent (%)	≥ 80	≥ 50	≥ 30
C1	The past 50 years, based on change in an <u>abiotic</u> variable affecting a fraction of the extent of the ecosystem and with relative severity, as indicated by the following table:	≥ 80	CR	EN	VU
		≥ 50	EN	VU	
		≥ 30	VU		
C2	C2a. The next 50 years, based on change in an <u>abiotic</u> variable affecting a fraction of the extent of the ecosystem and with relative severity, as indicated by the following table; OR C2b. Any 50-year period including the past, present and future, based on change in an <u>abiotic</u> variable affecting a fraction of the extent of the ecosystem and with relative severity, as indicated by the following table:	Extent (%)	≥ 80	≥ 50	≥ 30
		≥ 80	CR	EN	VU
		≥ 50	EN	VU	
		≥ 30	VU		
C3	Since 1750 based on change in an <u>abiotic</u> variable affecting a fraction of the extent of the ecosystem and with relative severity, as indicated by the following table:	Extent (%)	≥ 90	≥ 70	≥ 50
		≥ 90	CR	EN	VU
		≥ 70	EN	VU	
		≥ 50	VU		

D. Disruption of biotic processes or interactions over ANY of the following time periods:		Relative severity (%)			
		Extent (%)	≥ 80	≥ 50	≥ 30
D1	The past 50 years based on change in a <u>biotic</u> variable affecting a fraction of the extent of the ecosystem and with relative severity, as indicated by the following table:	≥ 80	CR	EN	VU
		≥ 50	EN	VU	
		≥ 30	VU		
D2	D2a. The next 50 years, based on change in a <u>biotic</u> variable affecting a fraction of the extent of the ecosystem and with relative severity, as indicated by the following table; OR D2b. Any 50-year period including the past, present and future, based on change in a <u>biotic</u> variable affecting a fraction of the extent of the ecosystem and with relative severity, as indicated by the following table:	Extent (%)	≥ 80	≥ 50	≥ 30
		≥ 80	CR	EN	VU
		≥ 50	EN	VU	
		≥ 30	VU		
D3	Since 1750, based on change in a <u>biotic</u> variable affecting a fraction of the extent of the ecosystem and with relative severity, as indicated by the following table:	Extent (%)	≥ 90	≥ 70	≥ 50
		≥ 90	CR	EN	VU
		≥ 70	EN	VU	
		≥ 50	VU		

E. Quantitative analysis that estimates the probability of ecosystem collapse to be:	
CR	≥ 50% within 50 years
EN	≥ 20% within 50 years
VU	≥ 10% within 100 years