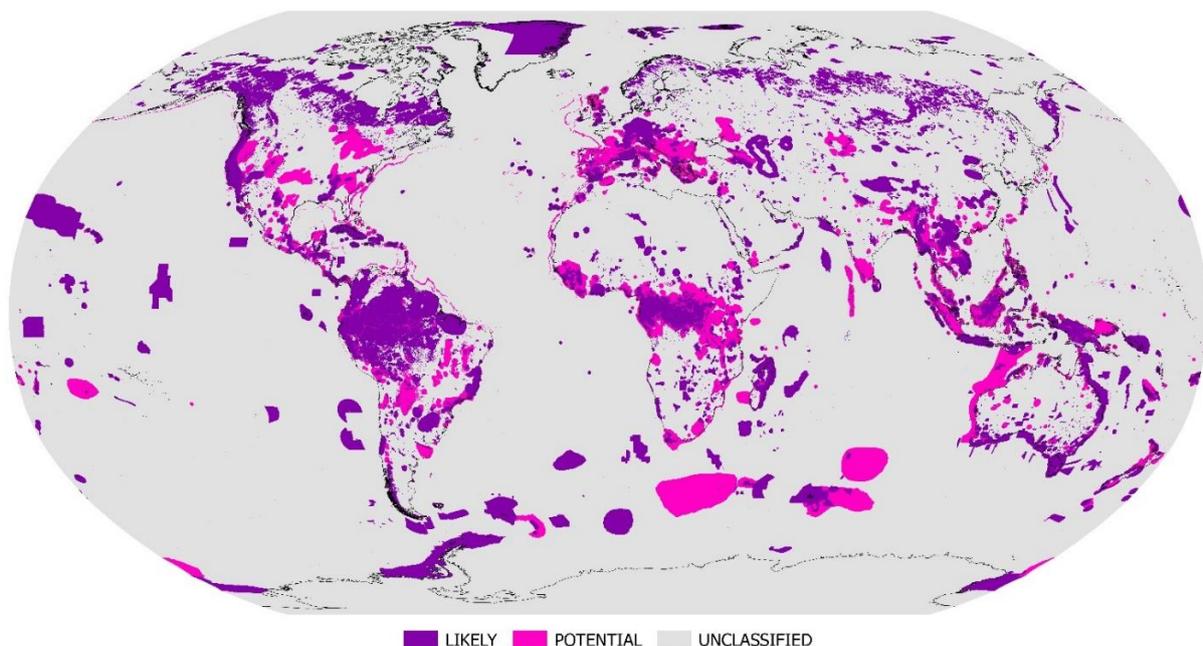


Screening for Critical Habitat V2.0

An explanation of updates for Version 2.0 of the global Critical Habitat screening layer

Key Messages

- In 2017 the UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC) launched Version 1.0 of a global screening layer for “Likely” and “Potential” Critical Habitat based on the definition in the International Finance Corporation’s Performance Standard 6 (IFC PS6). This layer is heavily used by Proteus Partners.
- Since the release of Version 1.0 the IFC has revised its guidance for determining Critical Habitat and new global-scale biodiversity data has become available. UNEP-WCMC has therefore produced an updated Version 2.0 of the Critical Habitat screening layer for use by Proteus Partners.
- The main updates for Version 2.0 of the Critical Habitat screening layer are:
 1. Use of more recent versions of input datasets used in Version 1.0 (where available) and inclusion of new data that was not available when Version 1.0 was created.
 2. Realignment of datasets with the updated IFC guidance and thresholds.
 3. Addition of attribute information to allow easier filtering by areas triggered under each Critical Habitat criterion, in response to Partner feedback.
- The intended use of Version 2.0 is the same as Version 1.0, that is for Partners to screen for the possible presence of Critical Habitat in areas of interest, to inform internal decision making.
- Like Version 1.0 of the layer, Version 2.0 does not have an official role in the classification of Critical Habitat but can be used for initial screening and as part of larger analysis (including site surveys) to identify biodiversity values at a site that may trigger Critical Habitat.



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Figure 1. Global distribution of *Likely* and *Potential* Critical Habitat in the Global Critical Habitat Screening layer (Version 2.0).

Introduction

In 2017 the UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC) launched Version 1.0 of a global screening layer for Critical Habitat for use by Proteus Partners. The definition of Critical Habitat was aligned with the International Finance Corporation's Performance Standard 6 on Biodiversity Conservation and Sustainable Management of Living Natural Resources (IFC PS6)¹ and the accompanying Guidance Note 6 (GN6) which aids interpretation and application of IFC PS6². Version 1.0 of the Critical Habitat layer was described in a separate Technical Brief produced for Proteus Partners in 2017³. It was in raster format, had global coverage at 1km² resolution, and classified pixels as either "Likely" Critical Habitat, "Potential" Critical Habitat, or "Unclassified". It consolidated marine and terrestrial components of the Critical Habitat layers published by UNEP-WCMC in scientific papers in 2015 and 2018 respectively^{4,5}.

UNEP-WCMC has now produced an updated Version 2.0 of the Critical Habitat screening layer for use by Proteus Partners. This document explains the updates to the layer. It intentionally provides a succinct overview only and does not duplicate the previous publications concerning Version 1.0 of the Critical Habitat layer. For a more detailed understanding of Critical Habitat and the spatial data layer this document can be looked at alongside:

- The 2017 Proteus Technical Briefing about Version 1.0 of the layer ([online here](#)).
- The 2015 scientific paper about the marine component of the layer ([online here](#)).
- The 2018 scientific paper about the terrestrial component of the layer ([online here](#)).

Updates to the Critical Habitat layer 2023

Why update the global Critical Habitat screening layer?

Version 1.0 of the global Critical Habitat screening layer is widely used by Proteus Partners in desk-based screening for Critical Habitat and other potential biodiversity sensitivities in assessment of related risks. The three major drivers for updating the Critical Habitat layer were new data, updated IFC guidance, and feedback from Proteus Partners.

New data

The Critical Habitat layer has been static since it was released in 2017. The real spatial distribution of biodiversity features that may trigger Critical Habitat is not static, and the availability and quality of data mapping biodiversity at global scale has improved since 2017.

Version 1.0 of the Critical Habitat layer was a derived layer using 20 high-quality and global-scale spatial datasets, including full datasets and subsets depending on alignment with the IFC PS6 criteria. Since 2017 suitable biodiversity data to underpin the layer has changed in two ways: 1) many of the datasets used in Version 1.0 of the layer are updated regularly, meaning more recent versions are available for use; and 2) new datasets mapping biodiversity features that align

with the Critical Habitat definition have become available, and/or have become accessible for use by commercial entities.

Updated IFC guidance

In 2019 the IFC released an updated version of GN6 superseding the previous 2012 version of this guidance. This update included changes to the criteria for Critical Habitat, such as updated thresholds to align with the Global Standard for the Identification of Key Biodiversity Areas⁶, greater recognition of species assessed as Vulnerable on the IUCN Red List, and revised guidance for ecosystems. Further detail on these changes, to which the updated Critical Habitat layer responds, is provided in a separate [Proteus Technical Briefing on implications of the update to GN6](#)⁷.

Partner feedback

Proteus Partners have provided feedback that the data format of Version 1.0 (raster with drilldown functionality) is suitable for most uses. However, it could be complimented by allowing easier filtering in GIS software for areas identified due to each separate Critical Habitat criterion.

Differences between Versions 1.0 and 2.0 of the global Critical Habitat screening layer

Like Version 1.0, Version 2.0 of the Critical Habitat screening layer is based on the framework provided through the criteria for Critical Habitat in IFC PS6, now updated to the 2019 version of GN6 (Box 1).

Responding to the drivers for updating the layer, Version 2.0 differs from Version 1.0 in three main ways.

First, the selection of datasets underpinning the layer has been reviewed and updated. The data used to create Version 2.0 (and how this compares to the data used in Version 1.0) is outlined in Table 1. Three new high-quality datasets have been incorporated for the first time, representing Important Marine Mammal Areas (IMMAs), Intact Forest Landscapes, and Tropical Moist Forests. Updated versions have been used for many of the datasets.

Second, the alignment of datasets with Critical Habitat criteria in Version 2.0 of the layer has been updated based on the 2019 version of GN6. As a result, notable changes in Version 2.0 of the layer include species assessed as Endangered in the IUCN Red List of Threatened Species triggering “Likely” rather than “Potential” Critical Habitat under criterion 1, inclusion of Vulnerable IUCN Red List species triggering “Potential” Critical Habitat, and removal of the two qualitative scenarios for recognising other high biodiversity values but incorporation of several associated datasets under other criteria such as criterion 4.

In addition, data on great apes have been added in Version 2.0. The IFC guidance specifies that the presence of great ape species is likely to trigger

Critical Habitat regardless of whether the population present meets the Critical Habitat thresholds. Ranges of great ape species from the IUCN Red List now trigger “Potential” Critical Habitat.

Third, new fields have been added to the raster attribute table recording the features and Critical Habitat criteria under which each area is triggered. This allows for easy filtering of the areas of Likely and Potential Critical Habitat triggered under each criterion.

Box 1. Definition of Critical Habitat

IFC PS6 defines Critical Habitat as areas with high biodiversity value including:

- **Criterion 1** – Habitat of significant importance to Critically Endangered and/or Endangered species
- **Criterion 2** – Habitat of significant importance to endemic and/or range restricted species
- **Criterion 3** – Habitat supporting globally significant concentrations of migratory species and/or congregatory species
- **Criterion 4** – Highly threatened and/or unique ecosystems
- **Criterion 5** – Areas associated with key evolutionary processes

Table 1. Data underpinning Version 2.0 of the Critical Habitat screening layer.

Biodiversity feature	Data source	Relevant subset*	IFC PS6 criteria					Classification	Changes from Version 1.0
			1	2	3	4	5		
Key Biodiversity Areas (KBAs)	[8]	Alliance for Zero Extinction Sites	L	L	L			Likely	Updated dataset, updated criteria
		KBAs under criteria A1a and A1e	L					Likely	
		KBAs under criterion A1b	P					Potential	
		KBAs under criterion A2a				L		Likely	
		KBAs under criterion A2b				P		Potential	
		KBAs under criterion B1		L				Likely	
		KBAs under criterion B4				P		Potential	
		KBAs under criterion C				P		Potential	
		KBAs under criterion D1a			L			Likely	
		KBAs under criterion D1b			P			Potential	
		KBAs under criterion D2			L			Likely	
		KBAs under criterion D3			P			Potential	

		KBAs under criterion E	P					Potential	
Important Bird and Biodiversity Areas (IBAs)	[9]	IBAs under criterion A1	L					Likely	Updated dataset
		IBAs under criterion A2		P				Potential	
		IBAs under criterion A3				P		Potential	
		IBAs under criterion A4			L			Likely	
		IBAs under criterion B1b	P					Potential	
Protected areas	[10]	Ramsar sites under criteria 1 and 3				L		Likely	Updated dataset, updated criteria
		Ramsar sites under criterion 2	L					Likely	
		Ramsar sites under criteria 4, 7, 8 and 9			P			Potential	
		Ramsar sites under criteria 5 and 6			L			Likely	
		All Ramsar sites				L		Likely	
		IUCN management categories Ia, Ib and II				L		Likely	
		Natural and mixed World Heritage sites				L		Likely	
Irreplaceable protected areas				L		Likely			
Sea turtle nesting sites	[11]	CR and EN species	L					Likely	No change
		All species			P	P		Potential	
Distributions of Threatened species	[12]	CR species under criterion D	L					Likely	Updated dataset
		EN species under criterion D	L					Likely	Updated dataset, updated criteria
		VU species under criterion D	P					Potential	New inclusion
		Great Apes species	P					Potential	
Tiger Conservation Landscapes	[13]	Current tiger habitat	L					Likely	No change
Important Marine Mammal Areas (IMMAs)	[14]	IMMAs under criterion A	P					Potential	New inclusion
		IMMAs under criterion B1		P				Potential	
		IMMAs under criterion B2			L			Likely	
		IMMAs under criteria C1, C2 and C3			P			Potential	
		IMMAs under criterion D1		P		P		Potential	
		IMMAs under criterion D2				P		Potential	
Hydrothermal vents	[15]	Active vents		L		P	L	Likely	No change
Cold seeps	[16]	All		P		L	L	Likely	No change
Saltmarshes	[17]	All				L		Likely	Updated dataset
Mangroves	[18]	All				L		Likely	Updated dataset
Seagrass beds	[19]	All				L		Likely	Updated dataset
Warm water coral reefs	[20]	All				L	L	Likely	Updated dataset
Cold water coral reefs	[21, 22, 23]	Observed occurrence				L	L	Likely	Updated dataset
	Modelled occurrence				P	P		Potential	No change
Seamounts	[24]	All				P		Potential	No change
Tropical montane cloud forests	[25]	All				P		Potential	No change
Ever wet tropical forests	[26]	All				P		Potential	No change
Tropical dry forests	[27]	All				P		Potential	No change
Intact Forest Landscapes	[28]	All				L		Likely	New inclusion
Tropical Moist Forest	[29]	All				L		Likely	New inclusion

*For criteria referenced to identify relevant subsets of datasets please see: Key Biodiversity Areas - [here](#); Important Bird and Biodiversity Areas - [here](#); Ramsar sites - [here](#); IUCN Red List species - [here](#); Important Marine Mammal Areas - [here](#).

Accessing and using the updated layer

Proteus Partners can access Version 2.0 of the Critical Habitat screening layer through the UNEP-WCMC Resources website, [here](#), using their Proteus website log in details.

Intended use

Like Version 1.0, the intended use of Version 2.0 of the global Critical Habitat layer is initial desk-based screening for the possible presence of Critical Habitat. The layer should be used as part or precursor to more detailed analysis including site-based surveys. It may be useful to inform internal decision making, for example when screening multiple sites or to inform and direct further site-level assessments. However, the layer does not have an official role in the classification of Critical Habitat.

Data limitations

All the datasets used to create the Critical Habitat layer are of global scale, and limitations in the data completeness, quality, recency, and resolution allow the layer to provide only a high-level indication of where Critical Habitat may be located. The Critical Habitat layer, and underlying datasets, may contain both errors of commission (stating a feature occurs where it does not) and omission (stating a feature does not occur where it does). Therefore, areas classified as Likely and Potential Critical Habitat require on-the-ground validation. Similarly, areas that are Unclassified may in reality contain Critical Habitat (there is just a lack of accessible data at global scale to indicate its presence).

Exclusionary criteria

The updated IFC GN6 specifies some exceptional circumstances under which areas will not be acceptable for financing. These include natural and mixed World Heritage sites and Alliance for Zero Extinction sites. While layers representing both of these features are included in Version 2.0 of the Critical Habitat layer, they are classified as Likely Critical Habitat rather than separately distinguishing areas that trigger exceptional circumstances. The rationale for this is that Proteus Partners also have access to layers representing both of these features as part of standalone datasets – natural and mixed World Heritage sites are included in the World Database on Protected Areas, and Alliance for Zero Extinction sites in the Key Biodiversity Areas dataset. These datasets can be used alongside Version 2.0 of the Critical Habitat layer, and other datasets available to Proteus Partners such as the [Natural and Modified Habitat screening layer](#), when carrying out screening based on IFC PS6.

Feedback and support

Version 2.0 of the Critical Habitat layer represents a significant update on Version 1.0, but the layer is intended to remain an evolving product. Proteus Partners are encouraged to provide feedback on their experiences using the layer, including suggested improvements for future updates. Proteus Partners are also encouraged to reach out to the UNEP-WCMC Proteus team if any support is required in using and interpreting the layer. Feedback and requests for support will be gratefully received, and can be directed to the Proteus email address, proteus@unep-wcmc.org.

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Authors: Alex Ross, Sebastian Dunnett, Alfred Muge

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Available online at: www.proteuspartners.org

Contact: Alex Ross (alex.ross@unep-wcmc.org), Proteus (proteus@unep-wcmc.org)

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