World Atlas of Mangroves
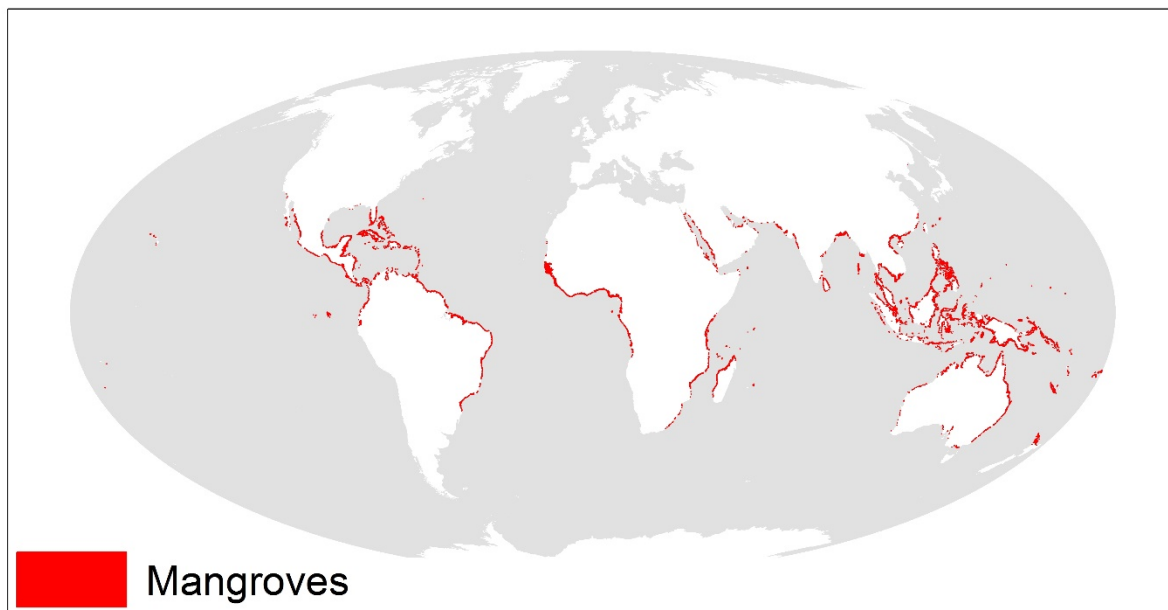

Mangroves

Description:	This dataset shows the global distribution of mangroves, and was produced as a joint initiative of the International Tropical Timber Organization (ITTO), International Society for Mangrove Ecosystems (ISME), Food and Agriculture Organization of the United Nations (FAO), UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC), United Nations Educational, Scientific and Cultural Organization's Man and the Biosphere Programme (UNESCO-MAB), United Nations University Institute for Water, Environment and Health (UNU-INWEH) and The Nature Conservancy (TNC). Major funding was provided by ITTO through a Japanese Government project grant; the project was implemented by ISME.
Citation:	Spalding M, Kainuma M, Collins L (2010). World Atlas of Mangroves (version 3.1). A collaborative project of ITTO, ISME, FAO, UNEP-WCMC, UNESCO-MAB, UNU-INWEH and TNC. London (UK): Earthscan, London. 319 pp. URL: http://www.routledge.com/books/details/9781844076574, Data DOI: https://doi.org/10.34892/w2ew-m835
Data collection date:	Mainly 1999-2003 (some earlier data for some countries)
Geographic range:	Global
Supplementary information:	Attribute table: Automatically generated number (OBJECTID); Unique ID distinguishing the data entry (LAYER_ID); Metadata ID linking to the source of the dataset, found in the associated metadata table (METADATA_ID); English name of the feature as provided by the data provider (NAME); Name of the feature as provided by the data provider in original language (ORIG_NAME); Local definition of feature as provided by the data provider (LOC_DEF); Scientific (Latin) name(s) of family, genus and species (FAMILY, GENUS, SPECIES); Reported area in square kilometres (REP_AREA_KM2); Area calculated using GIS, in square kilometres (GIS_AREA_KM2); description of whether data have been

obtained through remote sensing and/or field survey (DATA_TYPE); data gathering approach (SURVEY_MET); start and end date of data collection (of survey), supplied as text in the format YYYY-MM-DD (ISO date format) (START_DATE, END_DATE); character code that identifies accuracy of dates used in START_DATE and END_DATE to the nearest day(s), month(s), or year(s) (DATE_TYPE); verification by government or expert (VERIF).

Purpose of creation:	This dataset was used in the World Atlas of Mangroves (Spalding et al. 2010); some statistics in the publication are not derived from the dataset (see annex 3, p. 288 for details of the data used).
Creation methodology:	The dataset was created mostly from satellite imagery processed at UNEP-WCMC or FAO. For a number of countries, existing (WCMC-012 (1997)) or newly available (vector) data were incorporated. The methodology is detailed in chapter 3 of Spalding et al. (2010), which is distributed with the dataset ("WCMC-011-AtlasMangrove2010-Methodology.pdf").
Version:	3.1 (March 2021)
Data lineage:	**Version 3.1 (March 2021):**

PARENT_ISO and ISO3 (ISO 3166-3 character code of country or territory where the feature is located) and SUB_LOC (ISO 3166-2 sub-national code) were removed. The fields PROTECT (binomial value indicating whether the feature occurs in an area protected), PROTECT_FEAT (feature protected by law or by any other conservation measures) and PROTECT_STAT (measure that protects the feature) were removed.

Version 3.0 (June 2018):

Geographic attributions (ISO3 and Parent ISO3 codes) of points and polygons in the datasets have been matched to the World Vector Shoreline Plus and VLIZ World EEZ v10 geographic layers. This improves the accuracy of these datasets for national and regional studies. ISO3 codes need to be updated regularly due to codes becoming obsolete or EEZ boundaries being adjusted. Multipart points and polygons features were created to reduce the complexity of the attribute tables, merging those with identical attributes. This reduces the processing power required to handle the data while maintaining the level of detail required. The habitat datasets have been quality checked for obsolete ISO3 codes, overlapping claims identified and "Not Reported" consistently used for missing values rather than NA or blanks.

Version 2.0 (December 2017):

Standardises the feature and metadata attributes using a new schema, which aligns the attributes used across the habitat datasets curated by UNEP-WCMC. The updated attribute schema is outlined in "Supplementary Information." Specific changes include the addition of information on level of protection (e.g. PROTECT, PROTECT_FEAT, PROTECT_STAT), indication of whether the data have received expert or government verification (VERIF), and information on the start and end dates of data collection (i.e. START_DATE, END_DATE). The new schema will be used to inform a set of quality indicators, assessing changes in data quality over time.

Version 1.1 (November 2016):

Following user feedback, missing data from Myanmar was re-added to the dataset.

This dataset supersedes WCMC-012 (1997).

Category:	Biogenic habitat
Keywords:	coastal, blue carbon, remote sensing, satellite, mangrove, forest, habitat, ecosystem
Similar datasets:	WCMC-010, WCMC-012
Limitations:	Experts with detailed field knowledge were consulted for validating the maps. In some areas, there is an offset and/or mismatch in the position of the mangrove layer in relation to the coastline: this is probably caused by a number of factors, including varying data sources, differing scales to which the image interpretation was conducted, differing sensor types, differing optical bands, etc. For some countries, the vectorization process produced many thousands of small polygons, which have not been dissolved and/or deleted. The dataset is distributed with a document providing region-specific data limitations ("WCMC-011-AtlasMangrove2010-MapReferences.pdf").
	As the dataset may contain overlapping polygons, a dissolve operation (within a GIS) might be needed before surface area calculations are carried out.
	In addition to the present dataset (WCMC-011 (2010)), UNEP-WCMC distributes two other global mangrove data layers (WCMC-010 (2011), WCMC-012 (1997)). The two most recent datasets were both created using satellite imagery: WCMC-10 (2011) used a globally consistent methodology, whilst WCMC-011 (2010) also included observed data from various national/regional/international and other contributors (meaning that source data and associated errors were not consistent across the dataset).
Maintenance frequency:	Data are not being updated.
Main access/use constraint:	UNEP-WCMC General Data License (excluding WDPA). See https://www.unep-wcmc.org/policies/general-data-license-excluding-wdpa#data_policy for details.
Organisation type:	Custodian
Contact Organisation:	UN Environment Programme World Conservation Monitoring Centre
City:	Cambridge, UK
E-mail:	oceanplus@unep-wcmc.org
Data format(s):	KML (.kml); Vector (polygon); WMS;	Dataset size (uncompressed):	911 MB
Webpage and/or download:	https://doi.org/10.34892/w2ew-m835		

Dataset ID: WCMC-011

Web map service:	http://www.arcgis.com/home/item.html?id=cb2d636f577047b7addcf8bf3e795f31		
Factsheet:	http://wcmc.io/mangroves		
Resolution, scale:	1:1,000,000	Reference system:	WGS 1984
West bounding:	-175.3	East bounding:	180
South bounding:	-38.9	North bounding:	42.7
Metadata standard:	UNEP-WCMC Specific	Date of metadata:	26/03/2021