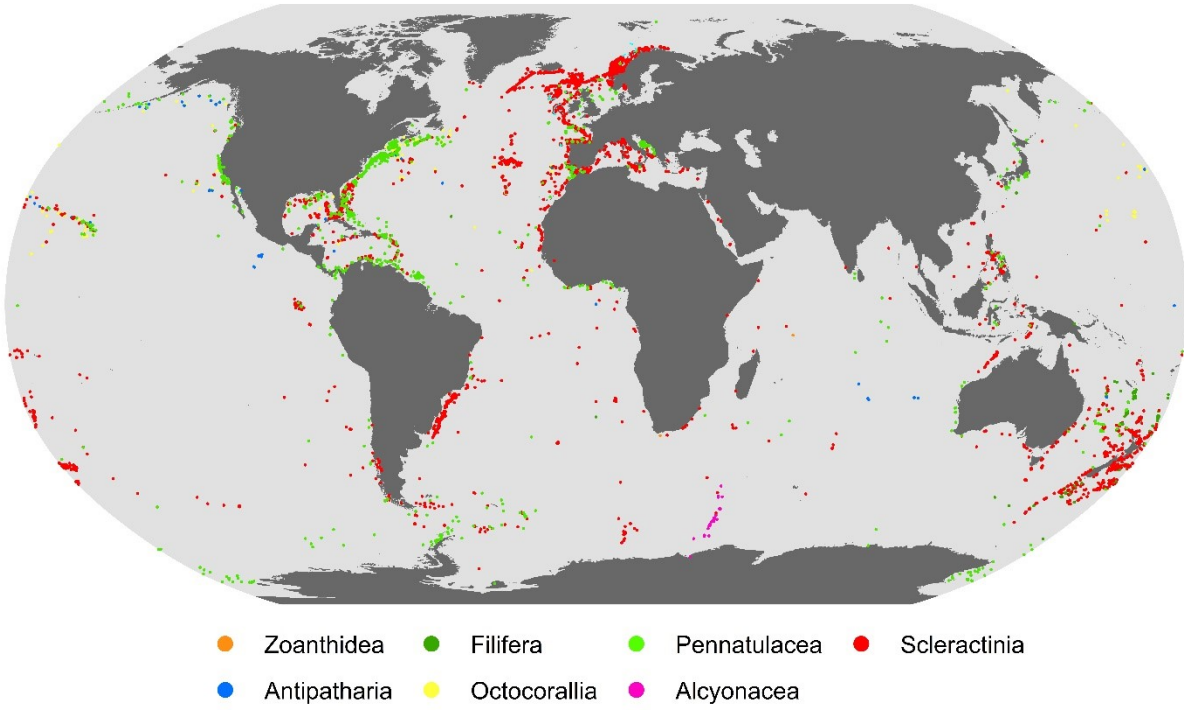
Global Distribution of Cold-water Corals



Description:	**This dataset shows of the global distribution of cold-water corals. Occurrence records are given for the subclass Octocorallia (octocorals; also known as Alcyonaria) and four Orders (in Class Anthozoa): Scleractinia (reef-forming corals), Antipatharia (black corals), Zoanthidae (encrusting or button polyps), and Pennatulacea (sea pens). Occurrence records are also available for the order sub-Order Filifera (lace corals) in Class Hydrozoa.**
Citation:	Freiwald A, Rogers A, Hall-Spencer J, Guinotte JM, Davies AJ, Yesson C, Martin CS, Weatherdon LV (2021). Global distribution of cold-water corals (version 5.1). Fifth update to the dataset in Freiwald et al. (2004) by UNEP-WCMC, in collaboration with Andre Freiwald and John Guinotte. Cambridge (UK): UN Environment Programme World Conservation Monitoring Centre. Data DOI: https://doi.org/10.34892/72x9-rt61 Other cited reference(s): Freiwald A, Fosså JH, Grehan A, Koslow T, Roberts JM (2004). Cold-water coral reefs: out of sight – no longer out of mind. Biodiversity Series 22. Cambridge (UK): UN Environment Programme World Conservation Monitoring Centre. 86 pp. URL: https://archive.org/details/coldwatercoralre04frei OSPAR Commission. (2015). OSPAR Threatened and/or Declining Habitats 2015. URL: http://www.ospar.org/work-areas/bdc/species-habitats/list-of-threatened-declining-species-habitats. Data URL: http://www.emodnet-seabedhabitats.eu/download

Data collection date:	1915-2014
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); Minimum/maximum depth in metres that the feature was found (MIN_DEPTH and MAX_DEPTH); verification by government or expert (VERIF).
Purpose of creation:	Version 1 of the dataset was created to accompany the report by Freiwald et al. (2004). Versions 2, 3, 4 and 5 were created as updates to the original dataset, to provide a more complete picture of the locations of cold corals globally.
Creation methodology:	Occurrence records were obtained from various sources, including reports, peer-reviewed articles and expert consultations. Many individuals and organisations contributed by providing UNEP-WCMC with their data in electronic form. For more information regarding sources please see the "Metadata_Cold_corals.dbf" table included.
Version:	5.1 (March 2021)
Data lineage:	**Version 5.1 (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 5.0 (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 4.0 (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. **Versions 2 and 3:** Updates implemented by UNEP-WCMC to the original dataset, in collaboration with Andre Freiwald and John Guinotte. Version 2 (with data between 1915 and 2006) consisted of 6,551 data points. Version 3.0 comprises 32,631 occurrences of cold corals, a five-fold increase, as well as an additional 1,203 polygons (covering 4,012 square kilometres), with data collected between 1915 and 2014. The polygon dataset derives from data obtained from OSPAR and Dorschel et al.'s "Atlas of the Deep-water Seabed - Ireland". Version 2 obtained data for 80 countries, as well as locations of cold corals within the high seas, while version 3 obtains data for 132 countries, in addition to the locations within the high seas.
Category:	Biogenic habitat
Keywords:	deep sea, high seas, benthic, marine
Similar datasets:	Yesson-001, Davies-001
Limitations:	The high density of reefs shown in the North Atlantic most probably reflects the intensity of research in this region. Further discoveries are expected worldwide, particularly in the deeper waters of subtropical and tropical regions. Please note that taxonomic classifications change frequently.
Maintenance frequency:	Data are updated in intervals that are uneven in duration.
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):	WMS; KML (.kml); Vector (polygon); Vector (point);
Dataset size (uncompressed):	23 MB

Webpage and/or download:	https://doi.org/10.34892/72x9-rt61		
Web map service:	http://www.arcgis.com/home/item.html?id=3ecb764343324bcab4c64c66d324cbd0		
Factsheet:	http://wcmc.io/cold-coral		
Resolution, scale:	NA	Reference system:	WGS 1984
West bounding:	-180	East bounding:	180
South bounding:	-90	North bounding:	90
Metadata standard:	UNEP-WCMC Specific	Date of metadata:	25/03/2021