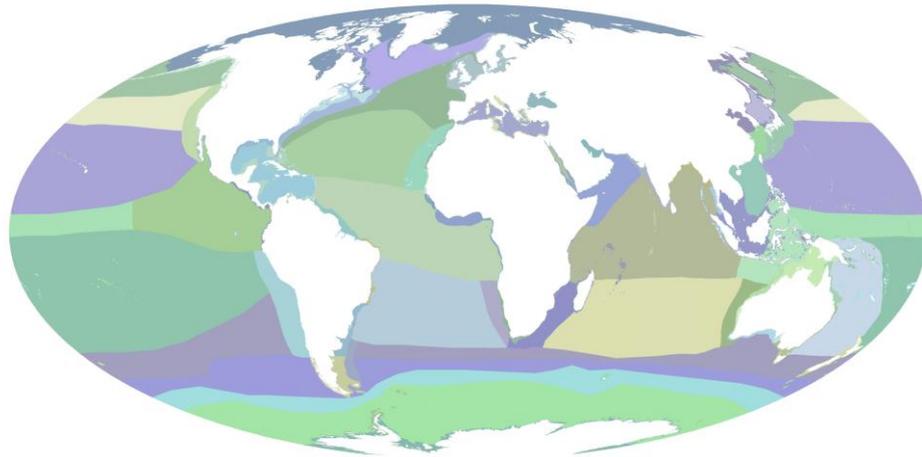


## Marine Ecoregions and Pelagic Provinces of the World (2007; 2012)



**Description:** This dataset combines two separately published datasets: the “Marine Ecoregions Of the World” (MEOW; 2007) and the “Pelagic Provinces Of the World” (PPOW; 2012). These datasets were developed by Mark Spalding and colleagues in The Nature Conservancy. Alongside the individual authors, partners for the MEOW layer included WWF, Ramsar, WCS, and UNEP-WCMC. The ecoregions and pelagic provinces are broadly aligned with each other and are non-overlapping.

The MEOW dataset shows a biogeographic classification of the world's coastal and continental shelf waters, following a nested hierarchy of realms, provinces and ecoregions. It describes 232 ecoregions, which lie within 62 provinces and 12 large realms. The regions aim to capture generic patterns of biodiversity across habitats and taxa, with regions extending from the coast (intertidal zone) to the 200 m depth contour (extended beyond these waters out by a 5 km buffer).

The PPOW dataset shows a biogeographic classification of the surface pelagic (i.e. epipelagic) waters of the world's oceans. It describes 37 pelagic provinces of the world, nested into four broad realms. A system of seven biomes are also identified ecologically, and these are spatially disjoint but united by common abiotic conditions, thereby creating physiognomically similar communities.

**Citation(s):**

Citation:

The Nature Conservancy (2012). Marine Ecoregions and Pelagic Provinces of the World. GIS layers developed by The Nature Conservancy with multiple partners, combined from Spalding et al. (2007) and Spalding et al. (2012). Cambridge (UK): The Nature Conservancy. DOIs: 10.1641/B570707; 10.1016/j.ocecoaman.2011.12.016. Data URL: <http://data.unep-wcmc.org/datasets/38>

Citations for the separate entities:

Spalding MD, Fox HE, Allen GR, Davidson N, Ferdaña ZA, Finlayson M, Halpern BS, Jorge MA, Lombana A, Lourie SA, Martin KD, McManus E, Molnar J, Recchia CA, Robertson J (2007). Marine Ecoregions of the World: a bioregionalization of coast and shelf areas. *BioScience* 57: 573-583. DOI: 10.1641/B570707. Data URL: <http://data.unep-wcmc.org/datasets/38>

Spalding MD, Agostini VN, Rice J, Grant SM (2012). Pelagic provinces of the world):

a biogeographic classification of the world's surface pelagic waters. Ocean and Coastal Management 60: 19-30. DOI: 10.1016/j.ocecoaman.2011.12.016. Data URL: <http://data.unep-wcmc.org/datasets/38>

**Temporal range:** 2007 and 2012

**Geographical range:** Global

**Supplementary information:** Attribute table: MEOW or PPOW (TYPE); realm name (REALM); province name (PROVINC); MEOW name (ECOREGION); PPOW biome (BIOME).

The dataset is provided in two versions: one clipped to a coastline (version 2.3.4 of UniHaw-001) and one left extending onto land masses (so that users can clip it to their preferred coastline).

**Purpose of creation:** This dataset was developed to address the need for a detailed, biogeographic system to classify the oceans. It provides better spatial resolution than earlier global systems, but may also be cross-referenced to many regional biogeographic classifications.

**Creation methodology:** MEOW: The classification was partly derived from existing classifications. Full methodology is given in Spalding et al (2007).

PPOW: The classification draws both on known taxonomic biogeography, and on the oceanographic forces which are major drivers of ecological patterns. Full methodology is given in Spalding et al (2012).

MEOW+PPOW: The MEOW and PPOW datasets were combined such that the MEOW dataset takes precedence, and the PPOW dataset appears outside the MEOW dataset (i.e. everywhere where the MEOW data is not present).

**Version:** 1.0 (May 2015)

**Data lineage:** In May 2015, UNEP-WCMC combined the "Marine Ecoregions of the World" (MEOW; WCMC-017) with the "Pelagic Provinces of the World" (PPOW; WCMC-018), so as to create a single dataset (MEOW+PPOW); WCMC-036, distributed on the Ocean Data Viewer. This combined dataset (version 1.0) should be used for all purposes, particularly spatial analyses.

UNEP-WCMC also corrected a number of geographic errors in WCMC-036 (e.g. spaces between vertices prevented the map from projecting correctly into projections where the earth's outline is curved; geographic extent, etc). These errors have not been corrected in WCMC-017 and WCMC-018.

**Category:** Biogeographic classification

**Keywords:** marine, coastal, high seas, pelagic

**Similar datasets:** WCMC-017, WCMC-018

**Limitations:** The proposed boundaries represent approximate boundaries of habitats or community composition, which might shift depending on weather and oceanographic conditions, seasons, or longer term climate change.

There is a possible mismatch involving where the East Siberian Sea meets the Chukchi Sea.

There may be overlapping polygons (consider dissolving before spatial analyses).

Maintenance frequency: Data are not being updated.

Main access/use constraint: UNEP-WCMC General Data License (excluding WDPA). See [www.unep-wcmc.org/policies/general-data-license-excluding-wdpa#data\\_policy](http://www.unep-wcmc.org/policies/general-data-license-excluding-wdpa#data_policy) and [www.unep-wcmc.org/policies](http://www.unep-wcmc.org/policies). For commercial use, please contact [business-support@unep-wcmc.org](mailto:business-support@unep-wcmc.org).

Other access/use constraints: None

Contact organisation: The Nature Conservancy

Organisation type: Resource provider      Acronym: TNC

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Web site: <http://www.nature.org/>

Data format(s): Vector (polygon; .shp)

Distribution format(s): Vector (polygon; .shp)      Dataset size (uncompressed): 274 Mb

Webpage and/or download: <http://dx.doi.org/10.1641/B570707>; [10.1016](http://dx.doi.org/10.1016)

Other webpage: <http://dx.doi.org/10.1016/j.ocecoaman.2011.12.016>

Web map service: [http://ec2-54-204-216-109.compute-1.amazonaws.com:6080/arcgis/rest/services/marine/WCMC\\_036\\_MEOW\\_PPOW\\_2007\\_2012/MapServer](http://ec2-54-204-216-109.compute-1.amazonaws.com:6080/arcgis/rest/services/marine/WCMC_036_MEOW_PPOW_2007_2012/MapServer)

Factsheet: <http://wcmc.io/PPOW>

Resolution, scale: Not applicable      Reference system: WGS 1984

West bounding: -180.0      East bounding: 180.0

South bounding: -90.0      North bounding: 90.0

Metadata standard: UNEP-WCMC Specific      Date of metadata: 29/01/2016