



Living in harmony with nature

## Marine and Coastal Biodiversity

Oceans cover 70% of our planet and represent over 95% of the biosphere. Marine and coastal habitats cover a diverse spectrum—from those near terrestrial environment such as coral reefs, mangrove forests, seagrass beds, and estuaries, to those deep below the surface, such as open ocean, hydrothermal vents, seamounts and soft sediments on the ocean floor.

More than just a valuable source of food and various economic activities, the ocean is one of the largest natural reservoirs of carbon. It stores about 15 times more CO<sub>2</sub> than the terrestrial biosphere and soils, and plays a significant role in climate moderation.

Deep-seabed habitats host between 500,000 and 10 million species. Deep-sea life is essential to life on Earth because of its crucial role in global carbon and biogeochemical cycles, including nutrient regeneration.

This tremendous wealth of biodiversity and ecosystem services is not, however, infinite. Today, human activities are greatly threatening the seas and coasts through overfishing, destructive fishing practices, pollution and waste disposal, agricultural runoff, invasive alien species, and habitat destruction. Global climate change adds additional pressures by raising the sea level, increasing the water temperature and leading to more storms and natural disasters. Seawater is acidifying due to increasing levels of atmospheric CO<sub>2</sub>, with significant implications for marine biodiversity.

Oceans are seriously under-protected: just over 1% of the ocean surface is designated as protected areas, compared to nearly 15% of protected-area coverage on land.

Countries that adopted the Convention on Biological Diversity are addressing various challenges to the conservation and sustainable use of marine and coastal biodiversity. By applying the ecosystem and precautionary approaches, they focus on the integrated management of marine and coastal areas, protection and enhanced management of ecologically or biologically significant areas, and sustainable fishery and mariculture management.



Convention on  
Biological Diversity

[www.cbd.int/marine](http://www.cbd.int/marine)



United Nations Decade on Biodiversity

## Fast Facts

- ▶ Oceans contain a vast diversity of habitats and spectacular seascapes, hosting 32 of the 34 phyla of the planet, of which approximately 13 are exclusively or mostly marine
- ▶ Genetic resources in the oceans and coasts are of great interest for commercial use
- ▶ Recent scientific results highlighted that higher biodiversity can enhance the functioning and efficiency of deep-sea ecosystems
- ▶ The sustainability of our biosphere significantly relies on the goods and services provided by deep-sea ecosystems
- ▶ Oceans have absorbed one-quarter to one-third of the CO<sub>2</sub> emitted to the atmosphere from the burning of fossil fuels, deforestation and other human activities since 1800
- ▶ About 80% of world fish stocks, for which assessment information is available, are fully exploited or overexploited and thus require effective and precautionary management
- ▶ Pressures on coastal and marine biodiversity will continue to increase, as 50% of the world's population will live along coasts by 2015, putting unsustainable pressures on coastal resources

## Learn More

United Nations Atlas of the Oceans ▶ [www.oceansatlas.org](http://www.oceansatlas.org)

Food and Agriculture Organization of the United Nations (FAO) ▶ [www.fao.org](http://www.fao.org)

Intergovernmental Oceanographic Commission—United Nations Educational, Scientific and Cultural Organization (UNESCO/IOC) ▶ [www.ioc-unesco.org](http://www.ioc-unesco.org)

International Maritime Organization ▶ [www.imo.org](http://www.imo.org)

United Nations Division for Ocean Affairs and the Law of the Sea (UNDOALOS)  
▶ [www.un.org/Depts/los](http://www.un.org/Depts/los)

World Conservation Monitoring Centre—United Nations Environment Programme (UNEP-WCMC) ▶ [www.unep-wcmc.org](http://www.unep-wcmc.org)

Census of Marine Life ▶ [www.coml.org](http://www.coml.org)

Ocean Biogeographic Information System ▶ [www.iobis.org](http://www.iobis.org)

Global Ocean Biodiversity Initiative (GOBI) ▶ [www.gobi.org](http://www.gobi.org)

IW: LEARN (GEF International Waters Learning Exchange and Resource Network)  
▶ [www.iwlearn.net](http://www.iwlearn.net)

International Coral Reef Initiative (ICRI) ▶ [www.icriforum.org](http://www.icriforum.org)

International Collective in Support of Fishworkers (ICSF) ▶ [www.icsf.net](http://www.icsf.net)

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