

Section 4

Chapter 5

Habitats

Introduction

The present chapter consists of 18 subchapters. It details the trends and state of a diverse range of marine and coastal habitats and ecosystems, providing insights into their characteristics, the changes they are undergoing and the pressures they face. Building upon the first and second *World Ocean Assessment* reports, it includes an examination of a wide range of marine habitats, from near-shore mangrove forests and salt marshes to the deepest trenches and seamounts. The change in state since the second *World Ocean Assessment* is provided in relation to mangrove forests, salt marshes, estuaries and deltas, rocky shores, seagrass meadows, cold-water corals, tropical and subtropical coral reefs, the Sargasso Sea, high-latitude ice, hydrothermal vents and cold seeps, and submarine habitats, such as seamounts, submarine canyons and trenches and abyssal plains. The baseline state of each habitat established in the second *Assessment* serves as a reference point for examining changes over the past decade. Key threats to habitats have been identified and their influence on changes observed has been discussed. When information is available, specific regional changes have also been highlighted, and an outlook for habitats in the short to medium term has been discussed. In the present *Assessment*, a new subchapter is provided on fjord systems (sect. 4, subchap. 5R), including their ecological characteristics, as well as the effects of global warming and glacial changes. The chapter entitled “Open ocean” in the second *Assessment* has been renamed “Pelagic domain” (sect. 4, subchap. 5N) and covers its ecological zones and significance, and the threats posed by pollution and climate change. Given their widespread presence on hard substrates worldwide, sponges are now examined specifically in the subchapter on cold-water corals and sponges (CWCS). All of these ecosystems also face substantial anthropogenic pressures that are explored in greater detail both generally and within each subchapter. Notwithstanding the many challenges listed for each habitat type, efforts towards conservation and management are also discussed.