Foreword

Our Living Oceans: Habitat. Status of the Habitat of U.S. Living Marine Resources is the third and final part of the *Our Living Oceans* publication series, joining the previously published *Our Living Oceans* reports on living marine resources in U.S. maritime waters and *Our Living Oceans* reports on the economics of the commercial and recreational fisheries conducted in these waters. Taken together, the *Our Living Oceans* series serves as a report card to the Nation, detailing the state of U.S. living marine resources, their contributions to the U.S. economy, the condition of their habitats, and the availability of habitat-use information. This current report on habitat provides the foundation for more targeted research and comprehensive and detailed reports in the future.

The most important laws governing activities of the National Marine Fisheries Service (NMFS) pertinent to habitat are the Magnuson-Stevens Fishery Conservation and Management Act (MSA), reauthorized in 2006, and two laws on protected species: the Endangered Species Act (ESA) and the Marine Mammal Protection Act (MMPA). The MSA includes provisions to help conserve and protect essential fish habitat (EFH), which is defined as "… those waters and substrate necessary to fish for spawning, breeding, or growth to maturity," for commercially and recreationally harvested fish and invertebrates within the U.S. Exclusive Economic Zone (typically 6–370 km [3–200 nautical miles] from shore). The ESA, as it applies to NMFS, includes provisions to help conserve ecosystems and habitats required by those marine species threatened with, or in danger of, extinction (e.g. certain species of cetaceans, pinnipeds, sea turtles, fishes, invertebrates, and marine plants). The MMPA also places restrictions on any habitat alteration that could adversely impact marine mammals by disrupting behavioral patterns. In summary, this report covers the habitats of all species managed or protected by NMFS under the MSA, ESA, and MMPA.

The fact that this report is the first comprehensive, nationwide review of the status and trends of these habitats, as well as the first comprehensive summary of information available on habitat use at the species or group-of-species level, underscores the difficulty of the task. In addition to cataloging what is known about our Nation's aquatic habitats and the habitat-use patterns of living marine resources, the report also tracks what remains unknown. This will help guide and prioritize research to address the most important gaps in information. Recent technological advances in autonomous underwater vehicles, multibeam sonar, and satellites have increased our ability fill these gaps in habitat knowledge.

Our living marine resources are in various conditions, ranging from heavily overfished and endangered to very healthy and functioning at a high level of productivity. Although the habitat needs of aquatic species often compete with other societal needs, the National Oceanic and Atmospheric Administration (NOAA) must ensure that the quantity and quality of available habitat is sufficient to support each life history stage of every managed species at sustainable levels. While there are difficulties associated with quantifying the habitat needs of a species, the work is vital because habitat degradation or loss may be constraining some populations.

This report should not be interpreted as one of despair nor of unbounded optimism. Federal and state governments have provided considerable protection by regulating pollution and development activities, and the increasing availability of habitat information is contributing to improved fishery and ecosystem-based management. However, the ever-increasing concentration of human population along the coasts, the growing amount of runoff from urban and other sources, and the emerging pressures from energy development and extraction offshore all continue to place pressure on coastal and marine habitats. The information provided in this report will give readers a chance to assess the current situation facing these habitats and to consider the opportunities that we have today to both protect the habitat that remains and repair or restore habitats that have been degraded or lost.

In addition, this report provides an overview of an important new NOAA initiative, the Habitat Blueprint, which provides a framework for NOAA to think and act strategically across programs, and with partners, to better protect and restore habitat. As the Blueprint matures and becomes more fully implemented, it will enhance NOAA's ability to address many of the important issues described in this report, and will serve as a guide to help create healthy habitats that can sustain resilient and thriving marine resources, help recover protected species, and protect coastal communities from storm damage.

Many scientists throughout NMFS and several other organizations contributed to this report. I extend my appreciation and compliments to all.

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