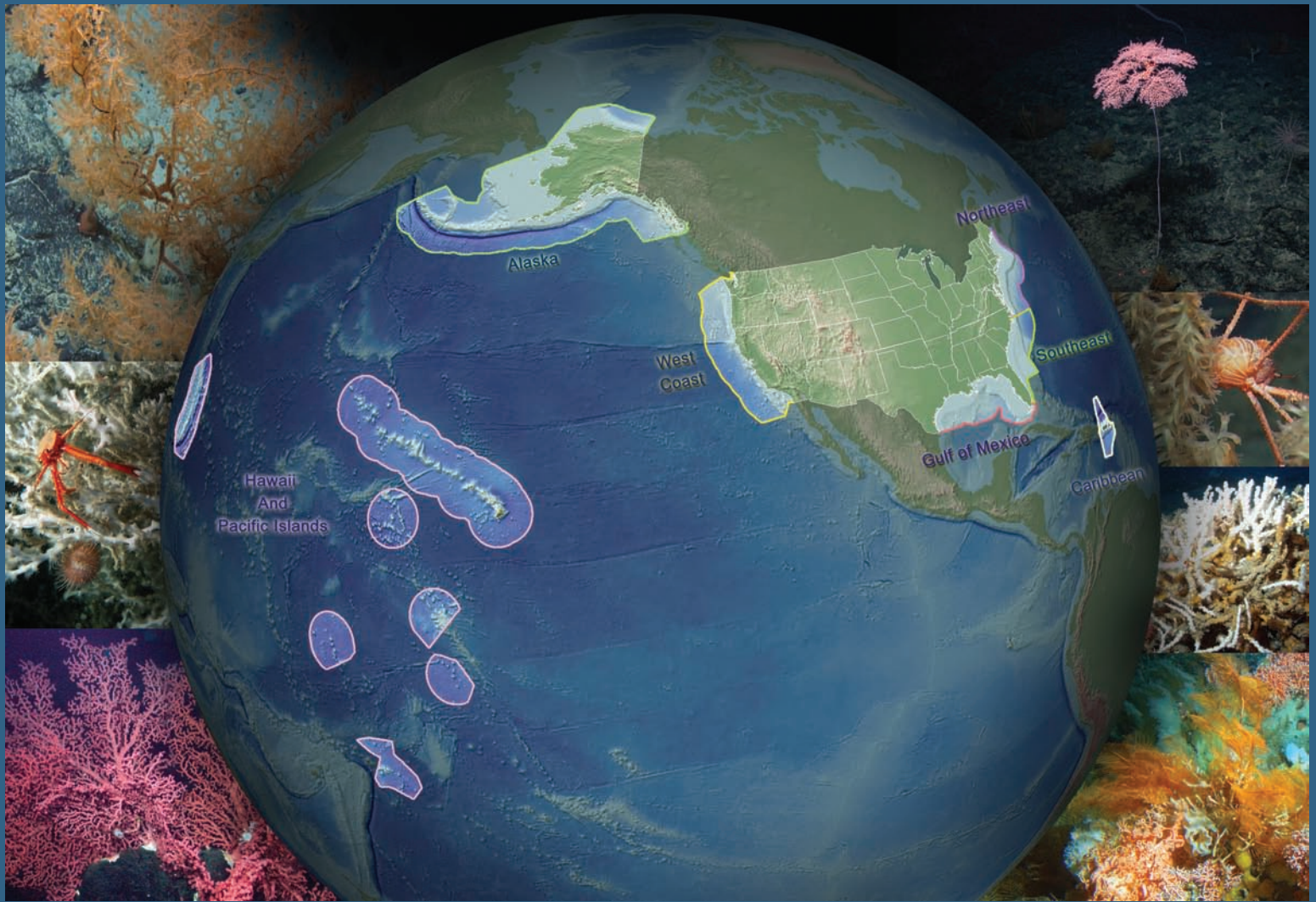




THE STATE OF DEEP CORAL ECOSYSTEMS OF THE UNITED STATES: 2007



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The State of Deep Coral Ecosystems of the United States

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Overall Report and Chapter 1: Introduction and Overview

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The State of the Deep Coral Ecosystems of the United States

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PREFACE

This report represents the first effort by the National Oceanic and Atmospheric Administration (NOAA), in partnership with other federal, academic and non-governmental partners, to bring together available information on the abundance and distribution of structure-forming corals that occur in U.S. waters at depths greater than 50 m. It consists of an introduction, National Overview and seven regional chapters describing deep coral communities in U.S. waters off Alaska, the U.S. West Coast, Hawai'i and the U.S. Insular Pacific, the Northeastern U.S., Southeastern U.S., Gulf of Mexico, and U.S. Caribbean. This report reflects the tremendous increase in awareness of these communities that has evolved over the last few years as the result of increasing exploration and research to understand deeper regions of the oceans. In the U.S., NOAA is proud to serve as a leading partner in much of this work.

NOAA coordinated the development of this report, under the auspices of the Deep Coral Team of the NOAA Coral Reef Conservation Program. It reflects the work and dedication of writing teams from each region and these teams should be cited as primary authors of the regional chapters. The report also benefited from the comments and suggestions of numerous federal and external reviewers and a Data Quality Act peer review coordinated through the Center for Independent Experts.

An introductory chapter defines and provides background information on structure-forming deep corals and identifies major threats that they face. A National Overview explores general trends in these communities across the regions from a national perspective. Chapters 2 through 8, the regional chapters, were developed by authors considered experts in the field of deep coral research and management and those chapters represent the core of this report. The authors of each chapter briefly describe the region and geological and oceanographic features important to deep coral communities; identify the major deep coral taxa that structure habitats in the region and what is known about their distribution; provide information on the other species associated with coral habitat; describe the threats to these habitats; discuss management efforts developed to respond to these threats, and briefly outline regional information needs.. The report also includes unpublished data and observations collected during recent research expeditions.

This report fulfills a commitment made in the U.S. Ocean Action Plan as part of an overall effort to research, survey and protect deep coral communities. It reflects NOAA's growing understanding of the importance of these communities as hot-spots for deep-water biological diversity, and NOAA's commitment to ensuring their enhanced conservation. This report is also a central part of a broader NOAA effort to develop a National Deep Coral and Sponge Research, Conservation and Management Strategy. We hope that this first *Report on the State of Deep Coral Ecosystems of the United States* will stimulate additional research, surveys and protection, and hope that periodic future reports will document both increased understanding and protection of these unique and valuable ecosystems.

