

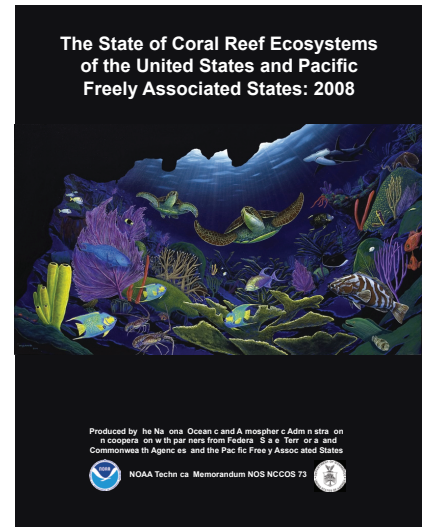


## The State of Coral Reef Ecosystems of the United States and Pacific Freely Associated States: 2008

*The State of Coral Reef Ecosystems of the United States and Pacific Freely Associated States: 2008* represents the National Oceanic and Atmospheric Administration's ongoing effort to assess the condition of the nation's shallow water coral reef ecosystems based on quantitative results of assessment and monitoring activities conducted by federal, state, territory, commonwealth, non-governmental, private and academic partners.

The 2008 report, which is the third in a series<sup>1</sup>, was produced in collaboration with teams of experts that authored chapters on the condition of coral reef ecosystems in 15 locations or jurisdictions within the U.S. and Freely Associated States (FAS).

Data and information presented in the report represents the contributions of over 270 scientists and managers working throughout the country to conserve and protect coral reef ecosystems and the organisms that depend on them. All reports are available free of charge at <http://ccma.nos.noaa.gov/stateofthereefs>.

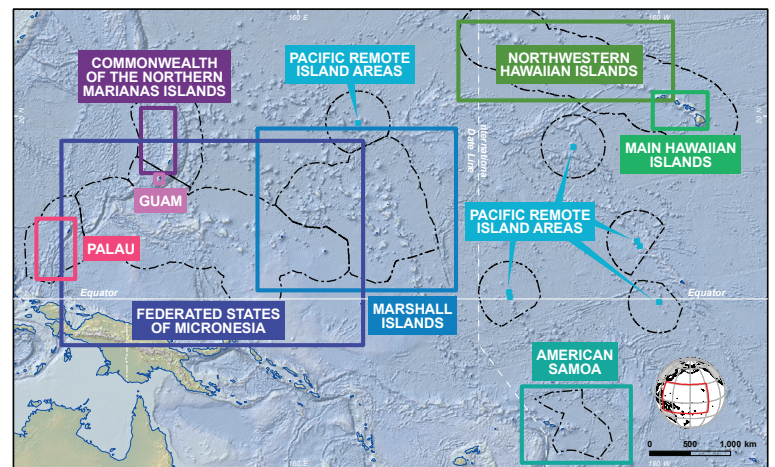
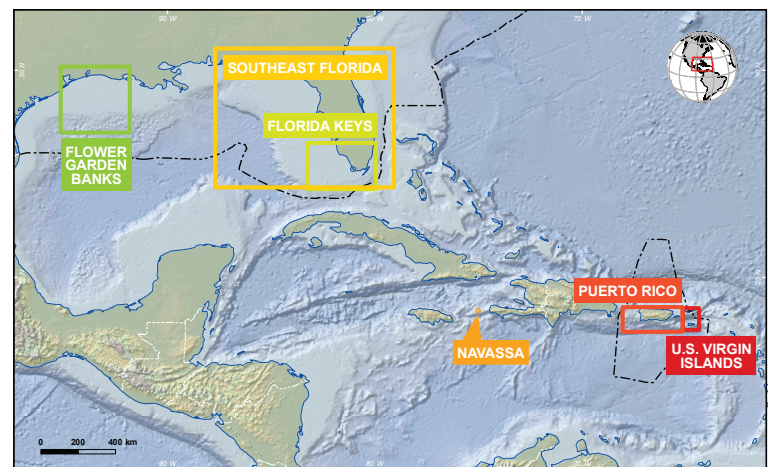


### Report Highlights

- Approximately half of the coral reef ecosystem resources under U.S. or FAS jurisdiction are considered by scientists to be in 'poor' or 'fair' condition and have declined over time due to several natural and anthropogenic threats.
- Reef habitats adjacent to populated areas tend to experience more intense threat levels related to issues like coastal development and recreational use, but even remote reefs far from human settlements are imperiled by illegal fishing, marine debris, and climate-related impacts such as bleaching, disease and acidification.
- The report represents the most current and comprehensive assessment of the condition of U.S. coral reef ecosystems and makes this wealth of knowledge widely available in an effort to encourage and support conservation efforts.

### Featured States, Territories & Commonwealths

*The State of Coral Reef Ecosystems of the United States and Pacific Freely Associated States: 2008* is organized regionally with chapters on each place or jurisdiction that contains coral reef ecosystems, including the U.S. Virgin Islands, Puerto Rico, Navassa Island, Florida, the Flower Garden Banks, the Main Hawaiian Islands, the Northwestern Hawaiian Islands, American Samoa, the Pacific Remote Island Areas, the Republic of the Marshall Islands, the Federated States of Micronesia, the Commonwealth of the Northern Mariana Islands, Guam and the Republic of Palau.



The location and geographic extent of the six Atlantic/Caribbean/Gulf of Mexico (top) and nine Pacific jurisdictions (bottom) featured in the 2008 report. Maps: K. Buja.

<sup>1</sup> The first report, produced by the National Centers for Coastal Ocean Science in 2002, provided a primarily qualitative assessment of coral reef ecosystem condition. The 2005 edition of the report was produced by CCMA's Biogeography Branch and was the first to rely heavily on quantitative coral reef ecosystem monitoring data.

## Coral Reef Ecosystem Monitoring and Reporting Efforts

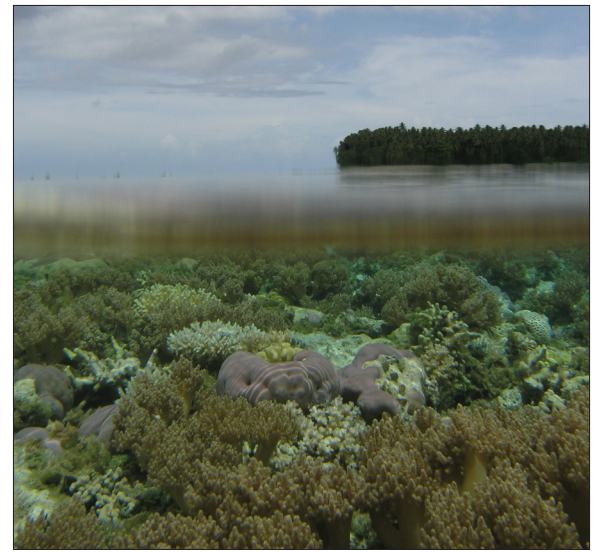
The chapters of the report present a wealth of scientific information, including descriptions of:

- Types and extent of shallow-water habitats;
- Primary threats affecting reef condition;
- Ongoing monitoring activities;
- Summary results from monitoring activities that measure water quality, benthic habitats and associated biological communities;
- Current conservation management activities; and
- Recommendations for future research and management.

Textural descriptions are complemented by over 700 graphs and tables, which provide a visual illustration of the data utilized in the report. Additionally, there are more than 50 detailed maps depicting the distribution of monitoring locations, benthic habitats, marine protected areas and other important features.

A National-Level Activities chapter describes some of the efforts underway at regional and national levels to conserve coral reefs, including large-scale mapping efforts and monitoring activities that utilize satellites, moored buoys and other technology; the role of social science in improving our understanding of how humans impact coral ecosystems; the use of spatial management tools such as marine protected areas to better conserve resources and habitats; and the additional legislative protections afforded by the listing of two Caribbean coral species as threatened under the Endangered Species Act and the reauthorization of the Coral Reef Conservation Act.

The 2008 National Summary chapter provides an overall summary of the condition of four key resources and ten key threats by synthesizing the results of a multiple choice questionnaire completed by scientists serving as chapter coordinators and/or expert writing team members. The questionnaire was tailored to evaluate the present condition of key resources and threats, identify short- and long-term trends in resources and threats, and provide an initial self-assessment of each jurisdictions' ability to monitor key resources and threats.



*Diverse coral communities thrive in the shallow waters of And Atoll in the Federated States of Micronesia. Photo: E. Joseph.*



*Divers routinely assess the condition of coral reef communities in the U.S. Caribbean. Photo: CCMA.*

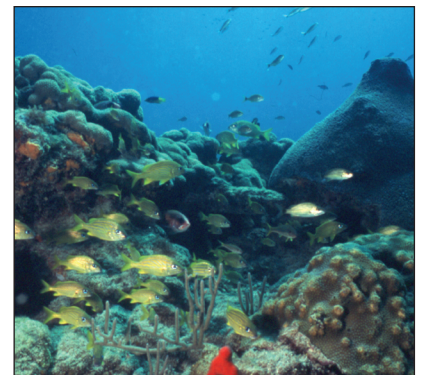
### Data

Data collection and integrated reporting is crucial to conservation management efforts. The 2008 report offers the most current and comprehensive data on the condition of U.S. coral reef ecosystems, based on the results of ongoing monitoring programs conducted by a variety of organizations. Information featured in this and future reports is intended to help identify and fill existing data and information gaps, thus enabling managers and others to implement the policies and actions needed to slow or reverse the general decline in coral reef ecosystem condition that has become evident in the last several decades. Please see the chapters of the report to learn more about specific efforts underway to monitor and conserve coral reefs and the results of ongoing monitoring programs.

### To Learn More

NOAA's Center for Coastal Monitoring and Assessment's Biogeography Branch led the development of the report with support from NOAA's Coral Reef Conservation Program (CRCP). The report was called for in the *National Coral Reef Action Strategy* and was designed to address the primary threats, goals, and objectives outlined in the *Strategy*, the Coral Reef Conservation Act of 2000, and other guidance documents.

The State of Coral Reef Ecosystems of the United States and Pacific Freely Associated States: 2008 will be available for free download July 7, 2008 at <http://ccma.nos.noaa.gov/stateofthereefs>. To request a printed copy or CD version of the document, please email a request to [CoralReport2008@noaa.gov](mailto:CoralReport2008@noaa.gov).



*A healthy Florida reef ecosystem provides habitat for a community of species. Photo: D. Gilliam.*

Biogeography Branch  
Center for Coastal Monitoring and Assessment  
National Centers for Coastal Ocean Science  
<http://ccma.nos.noaa.gov>



Coral Reef Conservation Program  
National Oceanic and Atmospheric Administration  
<http://www.coralreef.noaa.gov>