

Mapping Prioritization for US Shallow Coral Reef Areas

Overview

Spatial information about the seafloor is critical for environmental decision-making by coastal management organizations. NOAA's Coral Reef Conservation Program (CRCP) utilizes high quality, comprehensive mapping data to develop scientific information on the condition of coral reef ecosystems and develop spatial tools to help inform management decisions. However, collecting spatial information is expensive, logistically intensive, and time consuming. To overcome these challenges, coordination among managers and researchers within CRCP's jurisdictional regions is needed to understand overlapping data needs. This project provides an opportunity to identify critical information needs to increase understanding of coral reef ecosystems. The information provided by the participants is an initial step that will help to inform research and monitoring activities to address management needs and maximize opportunities to leverage and complement existing regional efforts.

CRCP has partnered with NOAA's National Centers for Coastal Ocean Science (NCCOS) to conduct a comprehensive, shallow-water gap analysis within CRCPs jurisdictional regions. NCCOS will lead a mapping prioritization effort and data inventory to 1) identify availability of existing data and products and 2) identify priority locations and approaches for future data collection. Results from this project will enable CRCP to identify priority locations of seafloor mapping needs, technology to be used, and alignment of data needs to the [CRCP main pillars of work](#). Coordination among local research and management organizations will help them efficiently leverage resources to map and explore seafloor areas in support of their individual objectives, mandates, and missions.



Reefscape in the waters of offshore US Virgin Islands. Photo Credit: NOAA & UVP UNCW



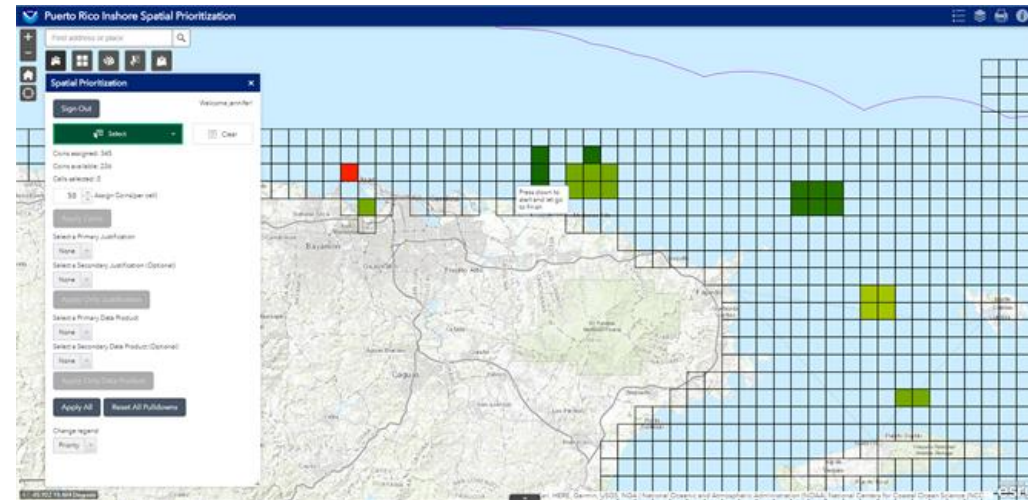
What We Propose To Do

From FY21-23 NCCOS will build a web-based digital inventory of relevant shallow water (up to 40 m) mapping datasets and conduct a data needs assessment for each of the CRCP jurisdictions (Puerto Rico, U.S. Virgin Islands, Hawaii, Florida, Guam, Commonwealth of Northern Mariana Islands, and American Samoa). In FY21, this analysis will be focused in shallow coral reef areas surrounding Puerto Rico, USVI, and Florida (Martin County to Dry Tortugas).

How We Will Do It

To identify priority areas within each jurisdiction, a spatial framework and participatory [online tool](#) will be used to solicit input from select local participants. Using methods similar to prioritization efforts elsewhere in the US (i.e., [West CONUS Coast](#), [US Caribbean](#), [Southeast US](#)), input will be combined to identify areas of high priority for collecting contemporary, high quality mapping data. Ultimately, this will provide CRCP and local managers with a detailed framework for future mapping management needs in order to protect, conserve, and restore the nation's coral reefs. The focus of this effort will support CRCP's four main pillars of work:

- Increase resilience to climate change
- Reduce land-based sources of pollution
- Improve fisheries' sustainability
- Restore viable coral populations



Example of spatial framework and online tool used to identify seafloor mapping priorities in the U.S. Caribbean.

