Prioritizing Areas for Future Mapping in Hawai‘i Shallow Coral Reef Areas

Overview

NOAA’s Coral Reef Conservation Program (CRCP) utilizes benthic mapping data to develop information on the condition of coral reef ecosystems to help inform science-based management decisions. They have identified a need to conduct a mapping data prioritization in shallow, coral reef areas within 0-40 meters within the Hawai‘i management jurisdiction. Results from this project will enable CRCP and partnering management agencies to identify priority locations that are in need of new and/or improved benthic mapping data. The information provided by participating agencies is an initial step to help inform research and monitoring activities, 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 Hawai‘i shallow coral reef areas. 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 products. Coordination among local Hawai‘i research and management organizations will help to efficiently leverage resources to map and explore seafloor areas in support of their individual objectives, mandates, and missions.
What We Will Do
In FY22, 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 shallow water areas surrounding the Hawai‘i (Big Island), Maui, Kaho‘olawe, Moloka‘i, Lāna‘i, O‘ahu, Kaua‘i, Ni‘ihau. During the summer of 2022, NCCOS will work with local agencies to gather their inputs and priorities. The analysis will be conducted late summer, and results shared by late summer to early fall. The final results of this project will be summarized and shared online.

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 benthic mapping data (i.e. acoustic surveys, underwater photos). Ultimately, this will provide CRCP and local agencies with a detailed framework of mapping needs for coral reef management in order to protect, conserve, and restore the nation’s coral resources. The focus of this effort will also 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 the spatial framework used to identify benthic mapping priorities off the coast of O‘ahu. The red line denotes the 40m depth contour used as the depth limit for this project.

Project Results and Links
- Project Page and Online Hub
- NCCOS Project Page