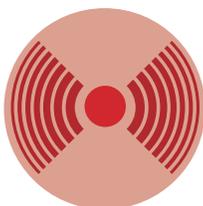


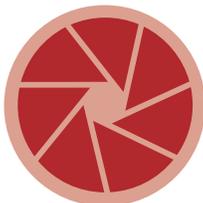


NOAA FISHERIES

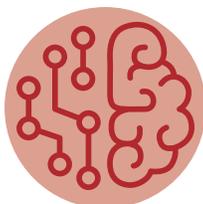
Next generation technologies and techniques:



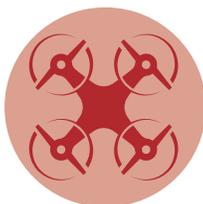
UNDERWATER MICROPHONES AND CAMERAS



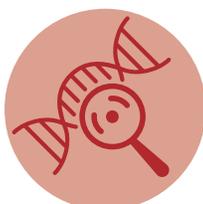
3D CORAL REEF IMAGERY



ARTIFICIAL INTELLIGENCE



UNCREWED SYSTEMS



ENVIRONMENTAL DNA AND GENOMICS

Pacific Islands Surveys

Pacific Islands Fisheries Science Center surveys collect critical data for assessing the health of marine life in the region, which makes up half of the entire U.S. exclusive economic zone. Their findings also help us understand how climate change is affecting fish, marine mammals, coral reef ecosystems, economies, and communities.

The data is used to set annual catch limits for fish stocks, recover protected species, and conserve marine habitats.

SURVEYS SUPPORT: NOAA Fisheries research surveys provide data critical to the stewardship of our nation's ocean resources and their habitat.



8,700 JOBS
FROM RECREATIONAL FISHING AND THE SEAFOOD INDUSTRY*



\$770 MILLION
IN SALES FROM RECREATIONAL FISHING AND THE SEAFOOD INDUSTRY*



Healthy CORAL REEFS



PROTECTION OF ENDANGERED MONK SEALS, WHALES, AND SEA TURTLES



PRESERVATION OF RICH CULTURAL HERITAGES



*Fisheries Economics of the United States, 2019. Numbers are for Hawai'i.

Hawaiian Islands Bottomfish Surveys

First survey conducted: 2016

Frequency: Annually in the fall

Species: Six snappers and one grouper in Hawai'i known as the Deep 7 bottomfish species

What we do: Scientists and fishermen deploy underwater cameras to assess the numbers and sizes of fish around the main Hawaiian Islands and at sea.

Partners: Local fishermen through the Pacific Islands Fisheries Group and Lynker Technologies

Data uses and benefits: We use the data in stock assessments for these culturally and economically important species. The assessments inform annual catch limits and other fishery management measures in state and federal waters.

Pacific Islands Coral Reef Ecosystem Surveys

First survey conducted: 2000

Frequency: Near-annually in the summer

What we do: We map coral reef habitats and monitor the health of reef ecosystems. Divers deploy environmental data recorders and combine hundreds to thousands of seafloor images to create 3D models of large areas, allowing us to compare the health of the reefs over time.

Partners: State and territory marine resource management agencies

Data uses and benefits: The results of these surveys inform conservation and management measures related to Pacific Islands coral reefs, which contribute an estimated \$800 million per year* in economic value. The surveys are also a key component of NOAA's National Coral Reef Monitoring Program, a long-term effort to gauge the changing conditions of U.S. coral reef ecosystems.

**Summary Report: The Economic Value of U.S. Coral Reefs, 2013. 2020 dollars inflation-adjusted from 2012 dollars.*

Whale and Dolphin Surveys

First survey conducted: 2002

Frequency: Semi-annually

What we do: We record the location and group size of species sightings. We also collect tissue samples and use satellite tags and underwater acoustic equipment to identify species, document movements, and assess population abundance and distribution.

Partners: Department of Defense and Bureau of Ocean Energy Management

Data uses and benefits: We use the data to assess the status of whale and dolphin populations and inform management measures under the Marine Mammal Protection Act and

Endangered Species Act. The surveys have helped us track and understand previously unknown migration patterns and distinct populations. DOD and BOEM also use the data to support national security and energy priorities in the Pacific.

Read about other surveys in the Pacific Islands:
www.fisheries.noaa.gov/research-surveys-pacific

