NOAA FISHERIES

Research Surveys

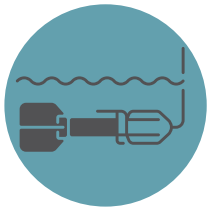
PLATFORMS USED

NOAA VESSELS

CHARTERED FISHING VESSELS

AIRCRAFT

SCUBA



AUTONOMOUS VEHICLES

NOAA Fisheries research surveys provide data critical to the stewardship of our nation's ocean resources and their habitat. For 150 years, our scientists and partners have sampled the oceans to understand the abundance, distribution, and health of marine life. We conduct surveys in set areas, on regular schedules, and using standard protocols. This allows us to follow trends and variability in marine life, ecosystems, and environments throughout the U.S. exclusive economic zone.

The insights we gain from research surveys are the heart of the science-based advice we provide to strengthen the blue economy, maintain productive and sustainable fisheries, conserve protected resources, and support healthy ecosystems.

Fishery biologist Jui-Han Chang sorts scallops during the Northeast Sea Scallop Survey. This annual survey uses a dredge to collect samples and a towed vehicle known as the HabCam to take images of the ocean bottom.

Benefits of Research Surveys

We rely on surveys to maintain the health of sustainable fisheries, protected resources, and their habitats. Robust and long-term survey data allows us to detect and forecast trends in these resources.

Healthy marine resources are critical to the U.S. economy, recreation, food security, and the socioeconomic health of coastal communities.

Research surveys support:

- 1.2 million jobs from fishing and seafood activities*
- $79 billion added to the gross domestic product*
- Robust tourism and recreation industries
- Sustainable management in more than 4 million square miles of federal water
- Access to sustainable, healthy seafood

**Fisheries Economics of the United States, 2019*

DID YOU KNOW?

Since 2007, our surveys in the Northwest have contributed to the recovery of 11 overfished groundfish stocks.

Responding to Change

As stewards of marine life and their habitats, we need to continually adapt our management to changing conditions.

Marine environments are incredibly complex and constantly changing. Scientists expect new and more intense environmental changes as a result of shifts in the planet's climate systems. New and growing marine industries, such as offshore wind energy, also impact ecosystems.

Our surveys update information on fish stock dynamics, ecosystem health, and the status of endangered species and other protected resources. Many of our surveys also collect measurements that help us study the link between climate change and ocean ecosystems.

DID YOU KNOW?

Ecosystem surveys play a vital role in maintaining healthy marine resources. In the Northeast, resource managers use 40 years of survey data on environmental conditions and plankton to understand and forecast the distribution, abundance, and reproductive health of species like the North Atlantic right whale, Atlantic cod, and tuna.

HOW THE DATA IS USED

FISHERY AND PROTECTED SPECIES STOCK ASSESSMENTS

ECOSYSTEM MODELING

INTEGRATED ECOSYSTEM ASSESSMENTS

SCIENTIFIC RESEARCH

CLIMATE SCIENCE AND ASSESSMENTS

Next Generation Technologies

We continuously build on the foundation of our research surveys and long-term data sets. New technologies and techniques improve the precision and accuracy of our data. They also allow us to expand our survey areas and collect data more frequently.

Our scientists use:

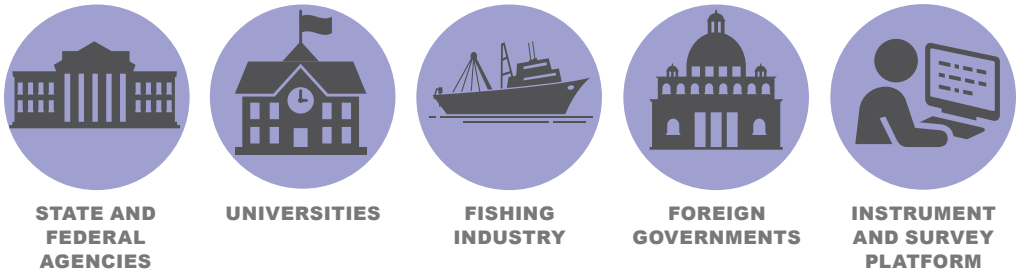
- Automated cameras
- Acoustics
- Environmental DNA
- Autonomous vehicles

DID YOU KNOW?

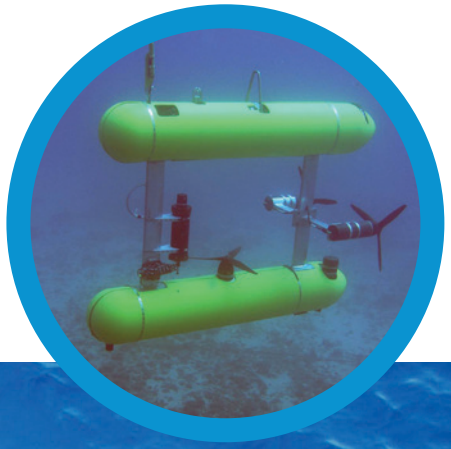
- When ship-based surveys were canceled in early 2020, we turned to autonomous sail drones to measure the abundance of Alaska pollock, the largest fishery in the United States, in the Bering Sea.
- We use autonomous gliders and vehicles to monitor Antarctic krill abundance, saving money, ship time, and staff hours.
- In the Southeast, we use environmental DNA to detect the presence of endangered marine mammals when we can't see them.

Read more about next generation technologies at work: www.fisheries.noaa.gov/insight/advanced-technologies.

ESSENTIAL PARTNERSHIPS



STATE AND FEDERAL AGENCIES | UNIVERSITIES | FISHING INDUSTRY | FOREIGN GOVERNMENTS | INSTRUMENT AND SURVEY PLATFORM DEVELOPERS



Partnership Highlight

In Hawai'i, recreational fishermen play a crucial role in our bottomfish survey. They collect fish samples and deploy stereo-video cameras to gather important abundance data used in the Main Hawaiian Islands Deep 7 bottomfish stock assessment. Read more: www.fisheries.noaa.gov/feature-story/public-private-partnership-remains-key-annual-bottomfish-survey-hawaii.

Learn More

Visit www.fisheries.noaa.gov/national/science-data/research-surveys.

U.S. Secretary of Commerce
Gina M. Raimondo

Acting Under Secretary of Commerce
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