



## NOAA FISHERIES

### About the Deep Sea Coral Research and Technology Program

- Established in 2007 under the Magnuson-Stevens Fishery Conservation & Management Act
- Developed in consultation with the 8 Regional Fishery Management Councils & in coordination with other federal agencies & educational institutions
- Guided by the NOAA Strategic Plan for Deep-Sea Coral & Sponge Ecosystems
- Produces sound science to support NOAA's role managing fishing impacts & other threats to deep-sea coral ecosystems
- Supports conservation in National Marine Sanctuaries
- Integrates the expertise & resources available across NOAA

# Deep Sea Coral Research and Technology Program

The mission of the Deep Sea Coral Research and Technology Program is to provide sound scientific information needed to conserve and manage deep-sea coral ecosystems.

## Deep-Sea Coral Ecosystems

Deep-sea corals can live for hundreds or even thousands of years. They create remarkably complex communities in the depths of the ocean, from where the light is dim to more than 10,000 feet deep. In the United States, deep-sea coral habitats have been discovered in all regions and on continental shelves and slopes, canyons, and seamounts. Their full geographic extent is still unknown, because most areas have yet to be adequately surveyed and explored.

## Architects of the Deep

Some deep-sea coral species form reefs that, over millennia, can grow more than 300 feet tall. Other species shaped like bushes or trees can form assemblages similar to gardens or forests on the seafloor.

Nationwide, these complex structures provide habitat for many fish and invertebrate species, including certain commercially important ones like grouper, snapper, sea bass, rockfish, shrimp, and crab.

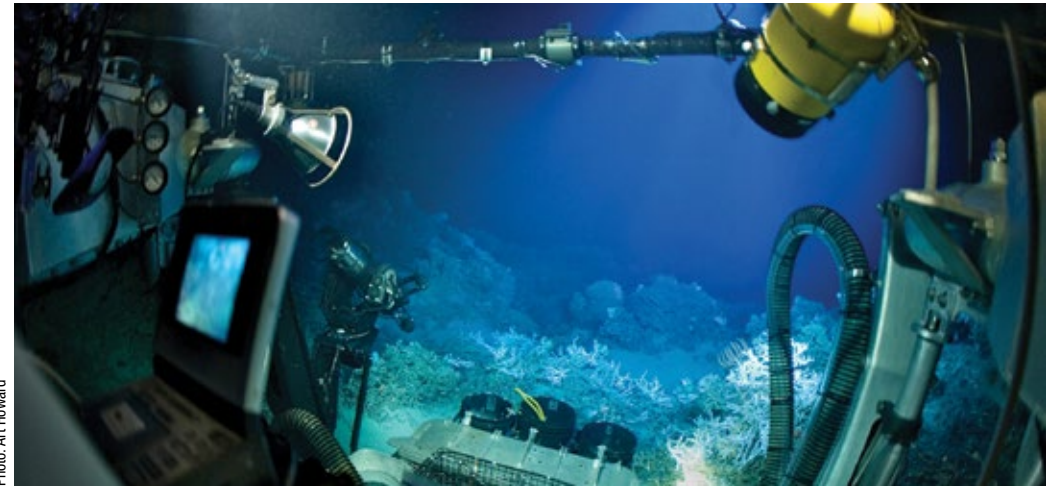


Photo: Art Howard

## Fragile Gems

Deep-sea corals are vulnerable to damage caused by bottom-tending fishing gears—especially trawls. They may also be damaged by energy exploration and development, deployment of cables and pipelines, and other human activities that disturb the seafloor.

Recovery from damage may take decades, or even centuries, as most deep-sea corals grow extremely slowly. Additionally, ocean acidification, a result of the ocean absorbing increased carbon dioxide, adversely affects corals' ability to grow.

The Deep Sea Coral Research and Technology Program is the nation's only federal research program dedicated to increasing scientific understanding of deep-sea coral ecosystems and to providing ocean resource managers with scientific studies to inform conservation actions.

### Learn more:

<https://deepseacoraldata.noaa.gov/>

## *Alaska 2012 – 2014*

- Fieldwork in Alaska surveyed corals and sponges in the Aleutian Islands, E. Bering Sea canyons and slope, and red tree coral habitats in the Gulf of Alaska
- The research is informing the North Pacific Fishery Management Council's management of groundfishes

## *Northeast 2012 – 2015*

- Coral surveys were conducted in the Gulf of Maine, on seamounts, and in 31 canyons
- The Mid-Atlantic Fishery Management Council used this research as the basis for proposed deep-sea coral protection zones covering over 38,000 sq. miles

## *West Coast 2010 – 2012*

- In partnership with sanctuaries, we surveyed coral and sponge habitats from Washington to Southern California
- The research is informing sanctuary management plans and the Pacific Fishery Management Council's Essential Fish Habitat measures

## *Southeast, Gulf of Mexico & U.S. Caribbean 2016 – 2019*

- Our newest field initiative is working with three fishery management councils and several sanctuaries to better understand the region's rich deep-sea coral habitats.

## *Southeast 2009 – 2011*

- Our inaugural field research initiative used sonar technology, remotely operated vehicles, and manned submersibles to discover, map, and understand deep-sea coral reefs
- Our research helped the South Atlantic Fishery Management Council delineate fishing zones and protected areas

## *U.S. Pacific Islands 2015 – 2017*

- In partnership with NOAA's Office of Ocean Exploration and Research, we are mapping, exploring, and studying deep-sea coral and sponge communities
- Our research supports priority science and management needs of the region's Marine National Monuments

## Nationwide Investment

The Deep Sea Coral Research and Technology Program is the nation's resource for information on deep-sea coral and sponge ecosystems.

### We support:

- Three to four-year regional field research initiatives
- Targeted analyses of ecology, genetics, and fisheries interactions
- The National Deep-Sea Coral and Sponge Database: <https://deepseacoraldatabase.noaa.gov/>