

Remotely Operated Vehicles

at work in National Marine Sanctuaries



The Phantom ROV gets deployed from a NOAA oceanographic ship to conduct research in the Gulf of the Farallones National Marine Sanctuary. Photo credit: Jamie Hall



An ROV hovers near a diver and above the coral reefs in the Flower Garden Banks National Marine Sanctuary. Photo credit: Emma Hickerson/NOAA

NOAA's National Marine Sanctuary Program serves as a trustee for the national system of marine protected areas to conserve, protect, and enhance their biodiversity, ecological integrity and cultural legacy.



NATIONAL MARINE
SANCTUARIES™



NOAA Ocean Service



Join NOAA's National Marine Sanctuary Program and the MATE Center, along with the Marine Technology Society's ROV Committee, for the 2004 National Student ROV Competition that will take you on a mission of sanctuary-related science and exploration. The Straits of Florida near the Florida Keys National Marine Sanctuary is the setting for challenges that include navigating an unknown reef, identifying a shipwreck, measuring depth and temperature, collecting biological and geological samples, and recovering lost scientific equipment. Dive into our National Marine Sanctuaries and come explore "Mystery Reef" with us!

Today, there are 13 National Marine Sanctuaries that were set aside as areas of special national significance. These coastal and ocean treasures range from the magnificent kelp forests of the California's Channel Islands and Monterey Bay to the shipwrecks in Lake Huron, and from the coral reefs of the Flower Garden Banks in the Gulf of Mexico, to the humpback whales of the Hawaiian Islands.



The Little Hercules and Argus ROVs explore the Montana shipwreck — a packing freight lost in 1914 — in the Thunder Bay National Marine Sanctuary and Underwater Preserve. ROVs are one type of technology that has been used to enhance the scientific work conducted in National Marine Sanctuaries. Photo credit: John Brooks

National Marine Sanctuaries are natural laboratories; a place to study and learn ocean currents, biodiversity, and ocean and coastal ecosystems. Yet scientists and researchers face numerous challenges in their attempts to study the marine environment. Remotely Operated Vehicles (ROVs) are one solution to research and monitor the environment beneath the waves in America's ocean and Great Lakes treasures.



Pilots flying the Innovator ROV during surveys in the Flower Garden Banks National Marine Sanctuary to characterize the coral reefs, as well as collect biological and geological samples. The red light in the ROV 'van' is used to provide illumination for those working inside the van without obstructing the images from the video monitors during dives. Photo credit: NOAA Ocean Explorer

A recent expedition on the coral reefs of the Flower Garden Banks National Marine Sanctuary has explored deep reef fish and coral communities between 50 and 200 meters deep using the Innovator ROV. For mission logs and more information about the mission and technology, visit NOAA Ocean Explorer.

National Marine Sanctuary Program
<http://sanctuaries.noaa.gov>

The MATE Center
<http://www.marinetech.org/>

NOAA Ocean Explorer
<http://oceanexplorer.noaa.gov>