

EXPLORING THE LIVING SEAFLOOR: SOUTHERN CALIFORNIA EXPEDITION

In August 2016, Oceana, in coordination with Marine Applied Research and Exploration (MARE) and Channel Islands National Marine Sanctuary (CINMS), conducted a five-day research expedition in Pacific Ocean waters off Southern California. The goal of the expedition was to explore and document fragile living habitats on the seafloor, including coral gardens, sponge beds, rocky reefs and underwater canyons that provide areas for shelter, breeding and feeding for important fish species and other deep sea animals. Oceana and MARE completed 13 dives and launched the Remotely Operated Vehicle, ROV Beagle, to depths ranging from 126 m (413 feet) to 379 m (1,243 feet).

The expedition focused on five locations inside and offshore of the Channel Islands: Southeast Santa Rosa Island, Anacapa Deep Ridge, West Santa Barbara Island, South Santa Barbara Island, and Butterfly Bank. Three of these locations had never before been documented with ROV technology to our knowledge.

The expedition findings, contained within the full report titled Exploring the Living Seafloor: Southern California Expedition, will help inform and advance the long-term conservation and management of these fragile, deep-sea habitats and the species that rely upon them for survival.

EXPEDITION HIGHLIGHTS



Observed cowcod rockfish—a species that was declared overfished in 2000 and not expected to recover until 2020.



Explored and documented three locations never before surveyed with a ROV to our knowledge.



Documented 4,707 rockfish, (*Sebastes spp.*) accounting for 92.7 percent of the total fish counted.



Filmed many ocean animals near and/or interacting with living seafloor structures including: ocean sunfish (*Mola mola*), wolf eel, octopus, and nudibranchs. We also documented cat shark egg cases hanging from yellow corals and lace sponges.



Adding to the National Deep-Sea Corals and Sponges Database an additional 3,289 records of corals, sponges and pennatulids (sea pens). This will be a 39 percent increase in the total number of records in the federal database within the 16,000 square mile conservation area proposed for protections by Oceana off Southern California.

FINDINGS BY THE NUMBERS

1,142 CORALS

3,644 SPONGES

5,059 FISH

31 FEDERALLY MANAGED FISH SPECIES
CO-OCCURRING WITH CORALS AND SPONGES

1. SOUTHEAST SANTA ROSA ISLAND

PROTECTION STATUS: Pacific Fishery Management Council is considering lifting existing bottom trawl closure. Oceana proposes this area be off limits to future bottom trawling as an Essential Fish Habitat conservation area.

HABITAT DISCOVERY: Contained the most fish of all locations with 53 fish/100 square meters and the highest densities of basket stars.



2. ANACAPA DEEP RIDGE

PROTECTION STATUS: Located inside the Channel Islands National Marine Sanctuary and within California state waters, this area is closed to bottom trawling per California state law.

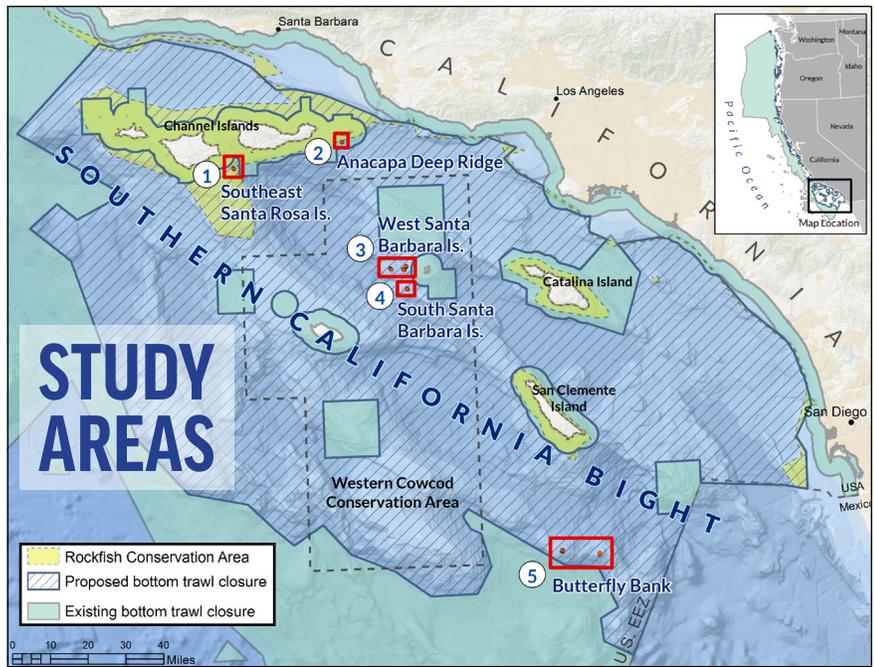
HABITAT DISCOVERY: High numbers of fragile pink urchins and the highest densities of black coral and bubblegum coral.



3. WEST SANTA BARBARA ISLAND

PROTECTION STATUS: Current bottom trawling prohibition may be lifted as cowcod rockfish recover from overfishing; therefore, Oceana proposes it be protected as Essential Fish Habitat conservation area and off limits to future bottom trawling.

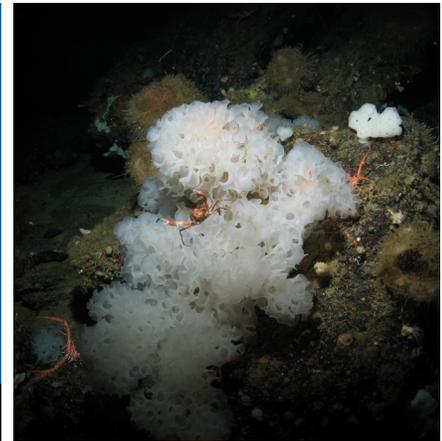
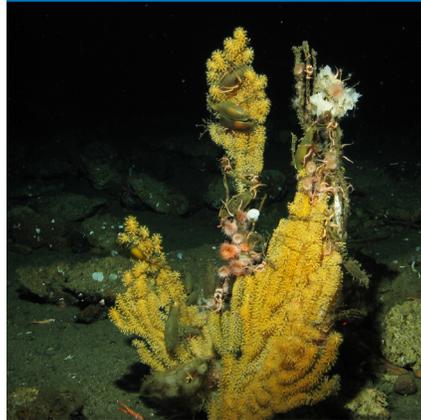
HABITAT DISCOVERY: Discovered previously unidentified coral gardens and rocky reefs here; located inside and outside of the CINMS boundaries.



4. SOUTH SANTA BARBARA ISLAND

PROTECTION STATUS: With cowcod projected to recover from overfishing in 2020, the current prohibition on bottom trawling may be lifted. As such, Oceana proposes this area be designated as an Essential Fish Habitat conservation area and therefore off limits to bottom trawling in the future.

HABITAT DISCOVERY: Documented cat shark (*Scyliorhinidae*) eggs laid on yellow corals.



5. BUTTERFLY BANK

PROTECTION STATUS: Currently open to bottom trawling. Oceana proposes precautionary protections to prevent future bottom trawling here by designating it an Essential Fish Habitat conservation area.

HABITAT DISCOVERY: After an all-night transit – 120 km offshore San Diego – this was the first time the area was ever explored. This was the only site where laced sponges were found.

Expedition findings show that this region warrants a precautionary approach to protections as new discoveries are made. Bottom trawling – the most destructive fishing practice to seafloor habitat – should not be allowed to expand into this area without first surveying for vulnerable seafloor habitats and determining that trawling could occur without adverse impacts. Oceana’s seafloor habitat conservation proposal would protect more than 16,000 miles of living seafloor habitat off Southern California (Figure 3 in the full report), should it be adopted by federal fishery managers this fall.

PROTECTING THESE VIBRANT SEAFLOOR COMMUNITIES IS ESSENTIAL, NOT ONLY FOR FISH POPULATIONS BUT AS A PART OF SOUTHERN CALIFORNIA’S DIVERSE OCEAN HERITAGE AND UNIQUE WILDLIFE.