

CORDELL BANK NATIONAL MARINE SANCTUARY

2008 ACCOMPLISHMENTS

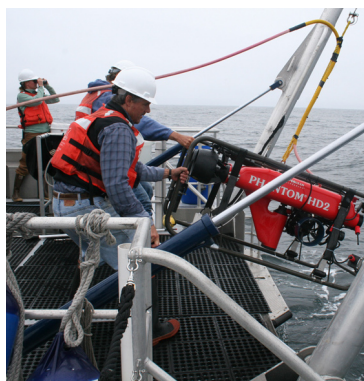


Photo: Michael Carver/CBNMS

Sanctuary Tests Innovative Techniques for Removing Deepwater Marine Debris

Cordell Bank National Marine Sanctuary staff successfully tested innovative methods of removing derelict fishing gear from the deep waters of Cordell Bank using a remotely operated vehicle (ROV) in August 2008. The team experimented with removing lost longlines and gillnets that had become entangled on the rocky reef, using the ROV's manipulator arm to cut loose and retrieve several large sections of fishing gear over the course of the six-day mission. The results of their tests will be incorporated into marine debris removal protocols that can be used for habitat restoration in other sensitive deepwater areas like Cordell Bank. In addition, sanctuary staff collected marine life attached to the derelict gear for aquaria and museum exhibits to share the underwater ecosystem of Cordell Bank with a wide audience and increase our understanding of this ocean treasure. To learn more, visit the mission log at <http://sanctuaries.noaa.gov/missions/2008cordellbank>.

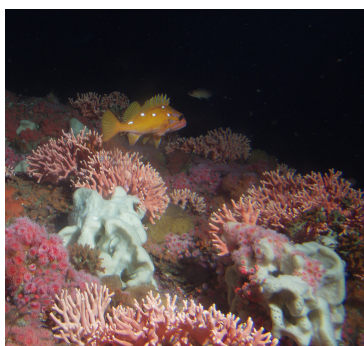


Photo: Rick Starr/CBNMS

Integrated Science Helps Sanctuary Staff Understand and Protect Cold-water Corals

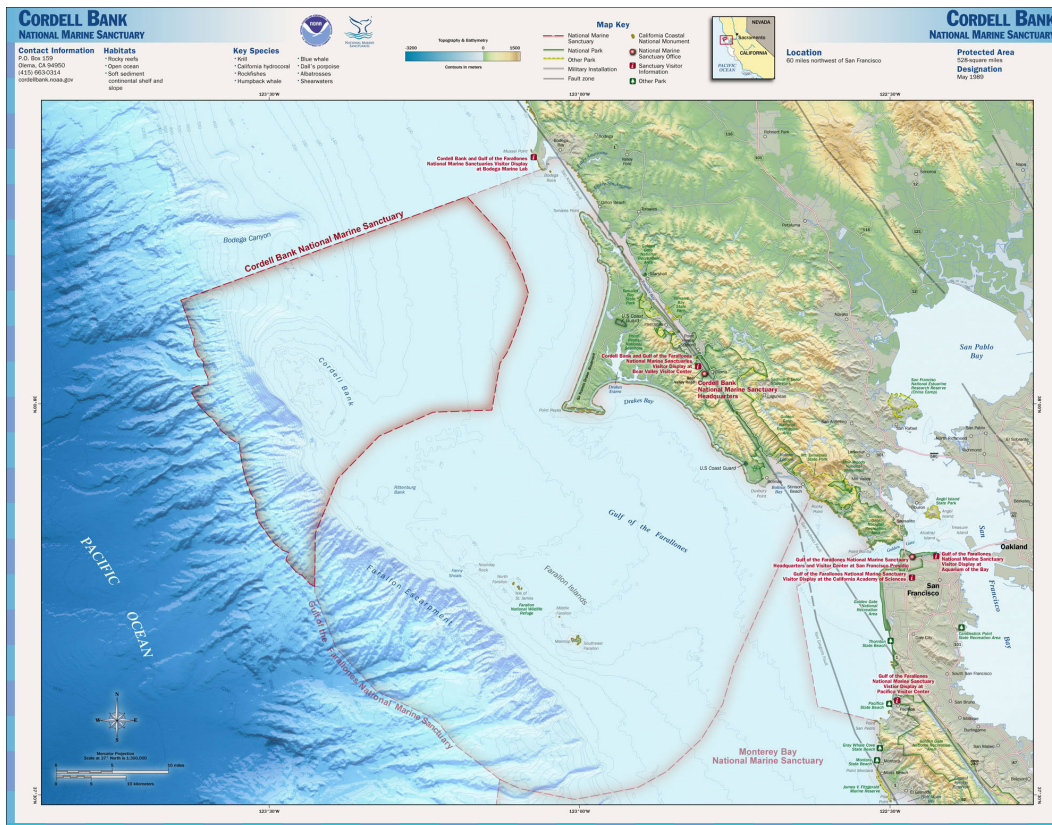
The sanctuary research team used new maps of Cordell Bank in conjunction with submersible observations to identify habitat types on the Bank where cold-water corals are found. Corals, which are slow-growing and sensitive to disturbance from activities such as bottom-tending fishing, provide crucial habitat for fish and invertebrates on the Bank and indicate areas of high biodiversity. The relationships between habitat types and coral presence were used to create predictive maps of the most sensitive and biologically diverse regions of the Bank. Understanding fine-scale patterns of corals provides a framework for monitoring these sensitive species and associated communities, particularly in the presence of changing ocean conditions. This knowledge of cold-water coral communities highlights the need for continued protection for these fragile seafloor communities. Detailed maps of Cordell Bank, which were generated using multibeam technology through a partnership with the California State University Monterey Bay Seafloor Mapping Lab, provide critical baseline data and have been useful for a variety of resource protection and research activities within the sanctuary.



Artwork: Chloé Viret

Expanded Web Site Reaches Diverse Audiences on Sanctuary and Research

Information on Cordell Bank National Marine Sanctuary's natural history and the research that is being conducted within the sanctuary was added to the Sanctuary Integrated Monitoring Network (SIMoN) Web site, <http://sanctuariesimon.org>. Originally created for Monterey Bay National Marine Sanctuary, SIMoN now provides a comprehensive regional assessment of the three central California sanctuaries. For the general public, the SIMoN Web site is the primary tool for disseminating Cordell Bank sanctuary monitoring information by providing facts and trends on sanctuary habitats and biological communities. For scientists and resource managers, the SIMoN Web site details current and historic monitoring efforts, encouraging collaborations and the advancement of our understanding of the sanctuary ecosystem.



Sanctuary maps available at sanctuaries.noaa.gov

Students Get Hooked on Ocean Stewardship by Tracking Ocean Animals

Animals in Curriculum-Based Ecosystem Studies (ACES) is a cutting-edge science experience that strives to bring the oceans into America’s classrooms and homes through innovative education and outreach techniques. In collaboration with US Satellite Lab and Oikonos Ecosystem Knowledge, Cordell Bank sanctuary staff supported ocean education training for 100 teachers, providing them with captivating instructional content that satisfies mandated classroom standards. The program captures students’ interest using migration of marine animals as the hook, while promoting exploration of ocean issues and stewardship. ACES also offers a public Web interface that allows users to go online and track different ocean animals. Through the ACES portal, students, teachers and the public can explore the national marine sanctuaries, find free activities, and track seabirds, marine mammals and sea turtles at <http://www.signalsofspring.net/aces>. This three-year project was funded by a 2006 NOAA Environmental Literacy Grant.

Outreach on the Air Waves

Cordell Bank National Marine Sanctuary staff extended the reach of its monthly radio program on KWMR, the coastal community radio station, by adapting it into a podcast to reach additional listeners. In one year, the radio program podcast has been downloaded over 16,000 times. The show dives into the depths of our blue planet and brings interviews with experts in ocean research, exploration and conservation to the local air waves with a focus on our local marine sanctuaries. Learn about everything from sanctuary research to the Humboldt squid to ocean literacy by visiting <http://cordellbank.noaa.gov/education/radioshow.html>.

New Oceanographic Buoy Fills Offshore Gap in Knowledge

Sanctuary staff deployed a new oceanographic buoy on Cordell Bank to assess the water quality of the sanctuary and increase our understanding of seasonal and annual fluctuations in productivity within the sanctuary and the larger California Current ecosystem. The data acquired from this buoy fill a crucial gap in our knowledge of the offshore ecosystem of California and will be combined with regional ocean monitoring programs. This collective approach will expand our understanding of how the sanctuary and the coastal environment are being impacted by climate change. This project was made possible through a partnership with the University of California Davis’ Bodega Marine Laboratory.

To learn more about these and other accomplishments, visit sanctuaries.noaa.gov

