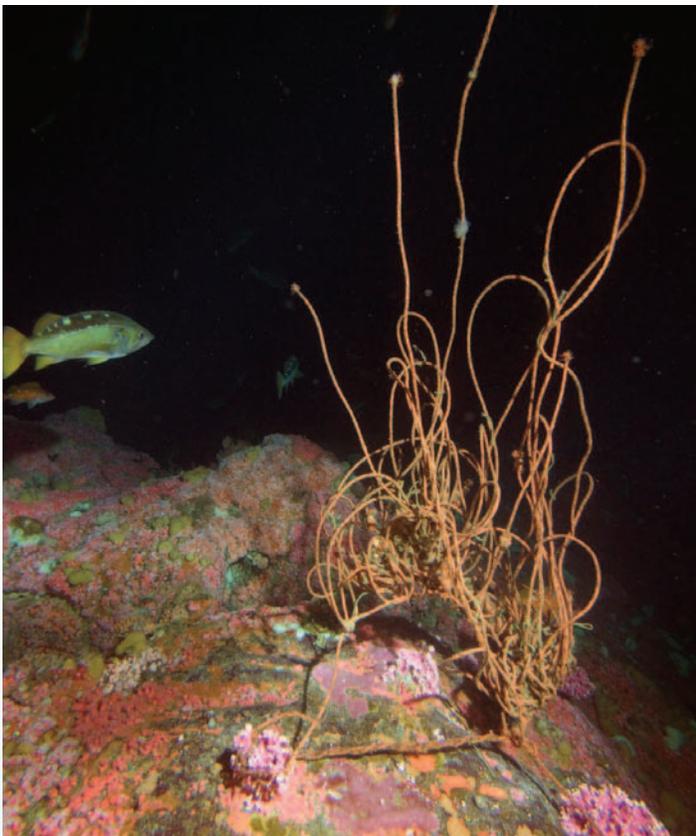


CORDELL BANK 2006 ACCOMPLISHMENTS



<http://cordellbank.noaa.gov>

Protecting the Fragile Reef Tops of Cordell Bank



Derelict fishing gear snagged on reef. Photo: Kip Evans

Sanctuary staff observations of derelict fishing gear in sanctuary waters led to a ban on the use of bottom contact fishing gear on Cordell Bank in waters shallower than 50 fathoms. In 2002, sanctuary staff observed the gear on 18 of 20 dives over rocky habitat on Cordell Bank. Based on these findings, staff worked with their advisory council and the Pacific Fisheries Management Council to recommend protection for this critical habitat. In 2006, Cordell Bank was identified as a Conservation Area by the council under NOAA Fisheries Essential Fish Habitat designation, and the prohibition on bottom contact gear was implemented.

Detailed Maps Aid Restoration Efforts

Researchers completed high-resolution, bathymetric mapping of Cordell Bank that will enhance future research, monitoring, and restoration efforts on Cordell Bank. The maps have already been used to help sanctuary staff plan the removal of derelict fishing gear on the bank. Additionally, data from the mapping effort will be used to create three-dimensional video products for sanctuary education and outreach efforts. This was a cooperative effort with the Benthic Mapping Laboratory at California State University Monterey Bay.

Monitoring Influence of San Francisco Bay Watershed

Last winter, observers saw huge rafts of debris floating 50 miles to the north and 25 miles offshore to Cordell Bank, indicating how the San Francisco Bay watershed is connected to the offshore marine environment. Unusually high rainfall in 2006 flooded inland areas and high amounts of debris washed 25 miles offshore to Cordell Bank. Animals come from all over the Pacific Ocean to feed in this region and could potentially be ingesting marine debris or risking entanglement. With support from NOAA's Marine Debris Program, the sanctuary is now monitoring the presence of floating debris as part of its monthly monitoring program that tracks the abundance of seabirds and mammals in the sanctuary. This new information is important to understand the source of debris observed in the sanctuary and to identify threats that exist for the animals living in the sanctuary. The monitoring program provides information that helps managers make decisions to safeguard sanctuary resources.



Elephant seal on Cordell Bank. Photo: Steve Howell

Radio Program Reaches New Audiences

A local monthly radio show on KWMR was launched to reach the coastal communities of the sanctuary. The show highlights the depths and far reaches of our watery planet and includes interviews with experts



about current ocean research, stewardship, management issues, and natural history, especially in our national marine sanctuaries. The show also streams live on the web, reaching a worldwide audience. Listen to a minke whale, track an albatross across the Pacific and find out how you can get involved in protecting the ocean. Listen to archived shows or subscribe to the podcast on the sanctuary Web site.

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

Teachers Dive into Ocean Exploration

Teachers and students learned how to design and build remotely operated vehicles (ROVs) in a workshop hosted by sanctuary staff in partnership with the Marine Advanced Technology and Education Center and Deep Ocean Exploration and Research. Eleven teachers and six high school students from around the region were treated to working directly with engineers to learn how they design ROVs and submersibles for different environments. The teachers and students then built their own ROVs out of PVC pipe and bilge pumps. The technology workshop provided valuable hands-on training for the students as they prepare for future ROV building competitions and reflects the sanctuary program's commitment to training America's future technology leaders.

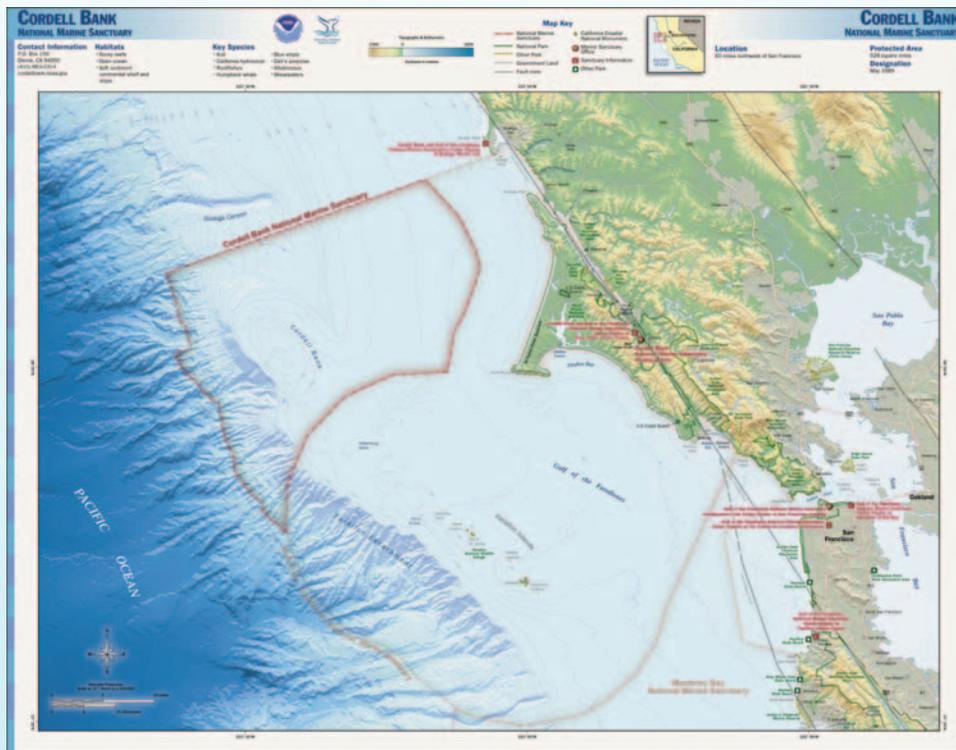
U.S. Coast Guard Helps Monitor Vessel Traffic

A new partnership between the National Marine Sanctuary Program and the U.S. Coast Guard is helping sanctuary staff study potential impacts of vessel traffic in the Cordell Bank sanctuary. The U.S. Coast Guard provided software that is allowing staff to track real-time movements of all large ships carrying Automatic Identification Systems. The last six years of data determined that an average of 200 ships per month pass Cordell Bank. Understanding vessel traffic patterns is important to documenting potential threats to sanctuary marine life. The information is already proving valuable as scientists used traffic data to determine the placement of the Sanctuary Ecosystem Assessment buoy that was installed in February 2007.

Plans for 2007

- Staff will be testing methods to remove entangled fishing gear from deep water habitats and survey areas of the bank never seen before to document the presence of marine debris in the region.
- NOAA has awarded \$600,000 for a three-year collaborative project that brings research into the classroom. Students will track black-footed albatross, sooty shearwaters, monkseals, and sea turtles in the ocean, and learn about the ocean as a habitat.
- An interactive touch screen kiosk will be installed at the Bear Valley Visitor Center at Point Reyes National Seashore, where visitors can interact with live weather data, interactive activities and access sanctuary Web sites.
- The program is looking to support the Oakland Museum of California in its museum renovation by bringing the sanctuaries and habitats of California into the newly designed natural sciences wing. Project is dependent on allotted exhibits funds.

Sanctuary Maps Now Available



New sanctuary atlas maps depicting physical ocean and land features, other state and federal managed areas and parks, and other basic atlas features are now available on the sanctuary program Web site: sanctuaries.noaa.gov.

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