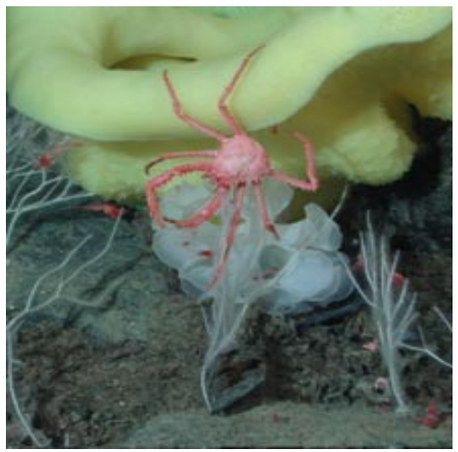
A group of key stakeholders was then assembled to thoroughly evaluate the issue and report their findings. This working group was composed of research scientists, educators, fishermen, marine conservation interest groups and ocean management agencies. The working group concluded that Davidson Seamount met the criteria for sanctuary designation laid out in the National Marine Sanctuaries Act. A majority of the group recommended that its inclusion in the MBNMS be further considered in the development of a draft management plan for the sanctuary. The MBNMS Advisory Council concurred with these findings and recommended that NOAA move forward with the process of inclusion of Davidson Seamount in the MBNMS. NOAA is currently considering these recommendations.



*Vermillion crab (*Paralomis verrilli*) dangling from yellow sponge* (Staurocalyptus sp.)

How Can I Get Involved?

The public opportunity for formal comment about this and other issues will occur during the hearings on the Draft Management Plan and Draft EIS, scheduled for release in Spring, 2005. However, comments on this and other management plan issues may be sent to the Sanctuary Program at any time.

Additional Resources

To send email comments or learn more about the Davidson Seamount Action Plan, go to:
http://sanctuaries.nos.noaa.gov/jointplan

To learn more about Davidson Seamount and other seamounts, visit the SIMoN website at:
http://www.mbnms-simon.org/sections/seamounts/overview.php?sec=s

To learn about a recent expedition to Davidson Seamount, go to:
http://oceanexplorer.noaa.gov/explorations/02davidson/davidson.html

Monterey Bay National Marine Sanctuary
299 Foam Street
Monterey, CA 93940
(831) 647-4201
www.montereybay.noaa.gov

Davidson Seamount

What Is A Seamount?

Seamounts are underwater mountains with steep sides rising over 3,280 feet (1,000 meters) above the surrounding seafloor. There are over 30,000 seamounts in the Pacific Ocean alone, yet remarkably, less than 0.1% of the seamounts in the world have been explored.

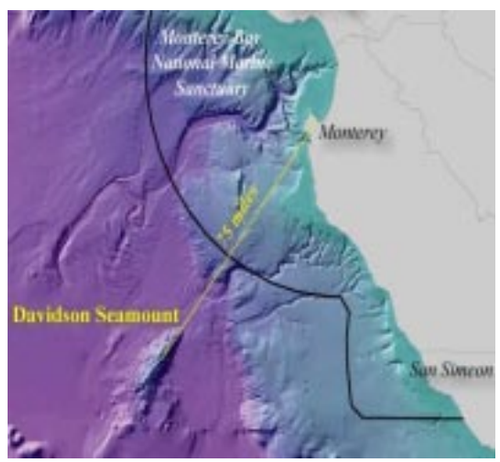
Studies that have been conducted over seamounts indicate that seamounts function as “oases of life,” with higher species diversity and biomass found on the seamount and in the waters around it than on the seafloor. Seamounts rise up high in the water column, creating complex current patterns influencing what lives on and above them. Seamounts also provide substrate (a location for attachment) where organisms can settle and grow. These organisms provide a food source for other animals. Scientists have found that seamounts often provide habitat to endemic species, species found only in a single location.

There are several seamounts located just beyond the boundaries of the National Oceanic and Atmoshpheric Administration’s (NOAA) Monterey Bay National Marine Sanctuary (MBNMS). These include Gumdrop, Pioneer, Guide and Davidson Seamounts .

What Makes Davidson Seamount Different From Other Seamounts?

Davidson Seamount is located 75 miles (120 km) southwest of Monterey (See map). It is 26 miles (42 km) long and 8 miles (13 km) wide. From base to crest, Davidson Seamount is 7,874 feet (2,400 m) tall, yet the top still sits 4,101 feet (1,250 m) below the sea surface.

Conservation Qualities: Davidson Seamount is the largest seamount in the western Pacific Ocean and is one of the largest seamounts in the world. No seamounts are currently protected by sanctuary status in the United States. The seamount is home to fragile, large, coldwater coral colonies with some species several hundred years old.



Davidson Seamount and Sanctuary Boundary

Ecological Qualities: Davidson Seamount has a pristine undersea ecosystem containing a diversity of habitats and sea life. A 2002 research expedition documented previously undiscovered species and species assemblages including large patches of corals and sponges. This biological diversity is not found on other central California seamounts.

Scientific Qualities: NOAA has worked in partnership with marine research institutions and universities to explore Davidson Seamount and it is now one of the better-studied seamounts in the world. With a history of detailed research dives and high-resolution maps, scientists can learn a great deal from the information gathered at Davidson Seamount. The seamount's proximity to scientific research institutions makes it accessible for further study.

Education Qualities: Davidson Seamount's proximity to the Monterey Bay National Marine Sanctuary and the Monterey Bay Aquarium offer excellent opportunities to educate the public about seamounts, cold-water sponges and corals, and seafloor topography. This is not currently a focus of other federal programs.

Historical Significance: The Davidson Seamount was the first geologic featured described as a "seamount." It was first mapped in 1933 and was named for George Davidson, a historic figure in early charting and mapping.

Aesthetic Qualities: Hundreds of high-quality photographs, maps and video of Davidson Seamount's unique creatures including fishes, corals, and invertebrates as well as the seamount's remarkable topography are available via NOAA websites, visitor centers, CD products, newspaper articles, television broadcasts and presentations.

*Venus Fly Trap Anemone (*Hormathiidae*)*

What Are The Threats To Davidson Seamount?

There is currently no comprehensive conservation and management scheme in place to protect the organisms on the seamount or the surrounding ecosystem. Existing federal and state regulations do not protect Davidson Seamount from a variety of potential threats:

Bio-prospecting: Some groups of organisms found on seamounts have been targeted for commercial products. Extensive collection of sensitive species for commercial use can damage the fragile ecosystem.

Cumulative Research Collection: Worldwide, there has been increased interest in studying deep sea corals such as the large pink bubblegum coral, *Paragorgia*. Davidson Seamount has several rare growing coral species, including *Paragorgia*. Unmanaged collection of slow growing species, even to learn more about them, can damage fragile ecosystems.

Seafloor Harvesting: Presently, there is no known commercial harvesting activity at Davidson Seamount. However, these activities have destroyed seamount communities in other parts of the world. If discoveries of precious corals or other commercial species on Davidson Seamount become apparent, commercial harvest with new deep sea techniques could cause severe damage. One test trawl can wipe out ancient corals for hundreds of years.

Marine Debris/Dumping: The Davidson Seamount area is not presently protected from targeted offshore dumping.

How Is MBNMS Involved?

NOAA is considering protecting the resources and qualities of the Davidson Seamount through inclusion in the Monterey Bay National Marine Sanctuary.

Would Existing Fisheries Be Affected?

No existing fishing activities would be affected. Two commercial fisheries are active in the waters above Davidson Seamount — drift gill netting for swordfish and sharks, and trolling for albacore tuna — operate in the top 150 feet (46 m) of water, 3,951 feet (1,204 m) above the seamount.

What Is The Process?

Inclusion of Davidson Seamount was raised during public scoping meetings held in the fall/winter of 2002-2003 to gather early input on potential revisions to the MBNMS management plan. The MBNMS Advisory Council agreed that Davidson Seamount should be evaluated further as part of the management plan review process.

Bubblegum coral (Paragorgia sp.*)*