Davidson Seamount: An Internationally Famous Deep-Sea Feature In Your Own Backyard

ABOUT THE DAVIDSON SEAMOUNT

The Davidson Seamount was added to the Monterey Bay National Marine Sanctuary in 2006. This pristine, underwater mountain is home to fragile, "old-growth" deep-sea coral forests – it is the first seamount to be protected in U.S. waters. Although there are over 30,000 seamounts in the Pacific Ocean alone, less than 0.1% of the world's seamounts have been explored and relatively few protected.

Discovered by seafloor mapping in 1938, and following decades of curiosity about the seamount, scientists from the sanctuary and Monterey Bay Aquarium Research Institute launched an expedition in 2002 and discovered a unique, intact life, including species that were rare, endemic, never described or seen alive before. Most stunning of all were the large, lush forests of deepsea corals and sponges that carpeted the seamount's crest. Fragile corals reaching as much as 12 feet high and humungous sponges – some bigger than a refrigerator – towered over its ridges. Above the seamount, life was just as prolific. Scientists encountered nine species of marine mammals, including the endangered sperm whale, and 15 species of seabirds.

National attention was drawn to the seamount and its magnificent qualities, but scientists realized they had only just begun to understand this remarkable ecosystem. The sanctuary organized another sustained expedition in 2004 resulting in more amazing findings. It's species have been science and corals determined to be well over 100 years old! These exciting discoveries highlighted the importance of protecting this underwater treasure, and in September 2005, President George W. Bush announced the Monterey Bay National Marine Sanctuary would expand to include the Davidson Seamount. On November 20, 2006 the seamount officially became part of the sanctuary, ensuring it will be conserved and protected forever.

PROTECTING THE SEAMOUNT

Because of its special ecological qualities and the potential of future threats such as harvesting or mining, the Office of National Marine Sanctuaries is protecting the Davidson Seamount by:

- Prohibiting the collection, disturbance or removal of marine life and resources below 3,000 feet within the seamount zone.
- Conducting research to understand marine species distribution, abundance and the effects of ocean acidification.
- Developing outreach programs and products to inform the public about the seamount and its ecological importance.

THE DAVIDSON SEAMOUNT IS:

- An inactive underwater volcano that last erupted about 9.8 million years ago
- The first geographic feature to be called a “seamount”
- One of four submarine volcanoes (including Guadalupe, Pioneer, and Gamburtsev) offshores of Central California
- One of the largest seamounts in U.S. waters
- Located 80 miles southwest of Monterey and 75 miles west of San Simeon
- 26 miles long and 8 miles wide
- 7,480 feet tall from base to summit
- 4,101 feet below the sea surface

SURFACE HABITAT:

The waters above the Seamount host a variety of seabirds, marine mammals, and surface fishes, including albatross, sharks, ocean sunfish, and orange roughy.

MIDWATER HABITAT:

From the top of the seamount to the sunlit surface waters above lies a vast, three-dimensional habitat known as the midwater. Species of the midwater habitat are found above the seamount crest and mid to deep water. Species found in this habitat include: boxfish, sea cucumbers, and ocean sunfish.

CREST HABITAT (~1,250-1,500 m):

A diverse species assemblage can be found at the seamount crests including large bubblegum coral forests, vast sponge fields, crabs, deep-sea fishes, shrimp, and basket stars.

SLOPE HABITAT (~1,500-2,500 m):

The slope habitat is composed of seamount and rock structures interspersed with areas of sandy or gravel substrates. The slope habitat is home to a variety of species, including sea urchins, anemones, and crabs.

BASE HABITAT (~2,500-3,250 m):

The interface between the seafloor and rocky outcrops is a distinct habitat for mobile macrofauna. This habitat is home to a variety of species, including sea cucumbers, anemones, and crabs.

DAVIDSON SEAMOUNT: A UNIQUE ECOSYSTEM

The Davidson Seamount is a unique ecosystem characterized by its abundance of species, including rare and endemic species. The seamount is home to a variety of species, including sea cucumbers, anemones, and crabs. The seamount is also home to a variety of corals, sponges, and other invertebrates.