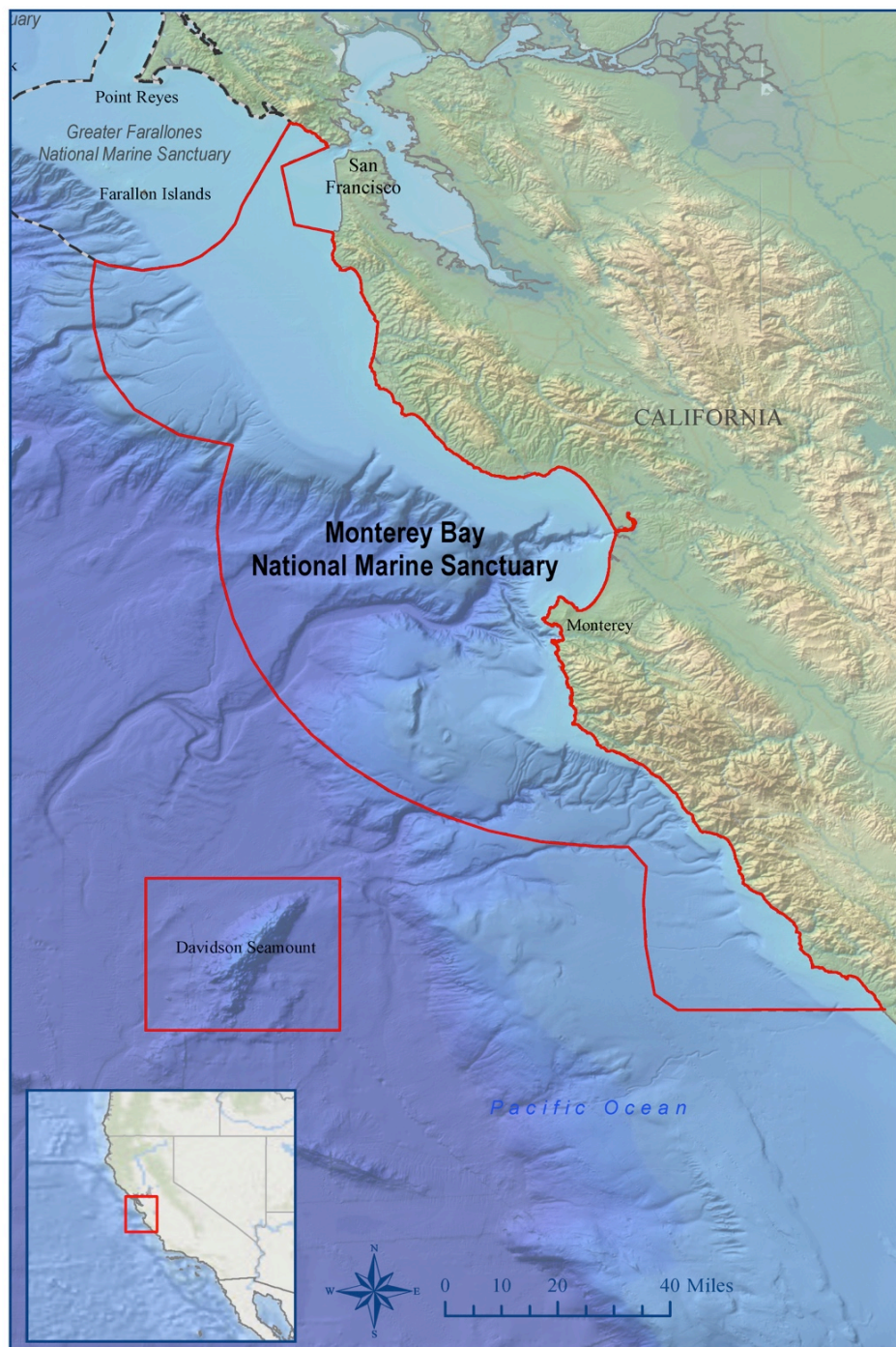


## FY19 Accomplishments

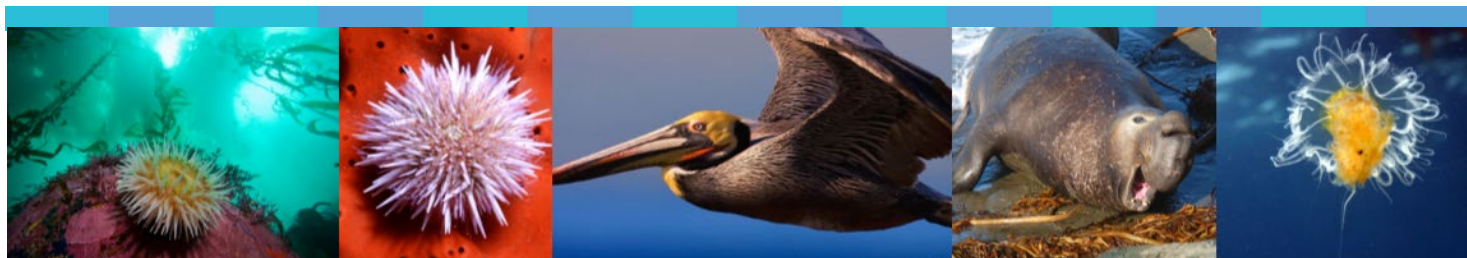


### BACKGROUND

Monterey Bay National Marine Sanctuary was established in 1992 to protect and preserve pristine beaches, jewel-like tide pools, lush kelp forests, steep canyons and an offshore seamount teeming with life -- from tiny shrimp to giant blue whales. Known as the "Serengeti of the Sea," the sanctuary is home to at least 36 species of marine mammals, more than 180 species of seabirds and shorebirds, 525 species of fish, an abundance of invertebrates and algae, and 26 threatened or endangered species. The sanctuary's seafloor also holds historic and cultural treasures.

Monterey Bay National Marine Sanctuary is part of the National Marine Sanctuary System, which is a network of underwater parks encompassing more than 600,000 square miles of marine and Great Lakes waters from Washington State to the Florida Keys, and from Lake Huron to American Samoa. National marine sanctuaries are managed for the conservation of their natural and cultural resources, while supporting sustainable recreation, tourism and compatible commercial activities. The network includes a system of 14 national marine sanctuaries and Papahānaumokuākea and Rose Atoll marine national monuments.





## Monterey Bay National Marine Sanctuary



Photo: Ocean Exploration Trust and NOAA

Numerous brooding deep-sea octopuses were discovered near Davidson Seamount aboard E/V *Nautilus* using the ROV *Hercules*.



Photo: Nick Ingram/NOAA

In 2019, Monterey Bay Aquarium Research Institute and sanctuary staff partnered on a new sound exhibit for the public.



Photo: M. Somosot

Snapshot Day volunteers have helped Monterey Bay National Marine Sanctuary take field measurements for water quality monitoring for 20 years.

### Rare deep-sea octopuses discovered in the sanctuary

In partnership with Ocean Exploration Trust aboard the E/V *Nautilus*, and later with Woods Hole Oceanographic Institute using the *Alvin* submersible, sanctuary scientists explored deep-sea communities near Davidson Seamount at 3,300 meters where aggregations of more than 1,000 brooding octopuses were discovered. The *Muusoctopus* species were aligned along geological fissures and fractures containing shimmering seawater seeps approximately 8°C above ambient seawater. Embryotic octopus eggs and whelk snails that were associated near the warm seeps were collected for DNA sequencing and further studies.

### Experiencing a wave of sounds in the sanctuary

Through a project between the sanctuary and Monterey Bay Aquarium Research Institute, the new "Sounds in the Sanctuary" exhibit was developed for the Sanctuary Exploration Center in Santa Cruz. The exhibit consists of a playback system that gives the public a chance to experience some of the fascinating sounds taken with a hydrophone stationed along the deep seafloor in the sanctuary. Visitors can hear, see, and feel recorded sounds that are natural (earthquake and rain), biological (whales, dolphins, and sea lions), and anthropogenic (container ships) in origin.

### 20 years of successful Snapshot Day Monitoring

Sanctuary staff held the 20th annual Snapshot Day water quality monitoring event with 158 volunteers collecting water samples at 119 watershed sites. This annual event requires considerable coordination among many partners, including the Coastal Watershed Council and San Mateo Resource Conservation District. Each year Snapshot Day is conducted, monitoring results become more valuable in showing the long-term status and trends of many water sources flowing into the sanctuary. During the past 20 years, 3,941 volunteers have participated and donated 19,863 hours to the sanctuary, sampling 252 sites along 125 sanctuary waterbodies.

### Looking Ahead to FY20

- As the sanctuary finalizes the management plan review process, draft documents will be released in 2020, initiating public hearings and a 60-day comment period for feedback from partners, stakeholders, and the general public.
- The sanctuary will explore regional partnerships in tourism sustainability by promoting responsible wildlife viewing, the "Get Into Your Sanctuary" campaign, and developing a sanctuary business recognition program to encourage sustainable practices that support a healthy ocean and a Blue Economy.
- The sanctuary and research partners will further characterize underwater sound recordings collected from three Navy and NOAA