

**Biodiversity**  
**Humpback Whale and Cordell Bank National Marine Sanctuaries**

Visuals	Audio
<p>Footage of a diver exploring a Hawaiian reef</p> <p>Footage of CBNMS and a regional map showing its proximity to San Francisco.</p> <p>Footage of HWNMS and it's boundary map in the Hawaiian Islands</p> <p>Map of the Pacific Ocean showing the location of Cordell Bank and the Humpback Whale NMS</p> <p>Footage of Cordell Bank's reefs, marine life and sea birds feeding and flying about the wind swept waves.</p> <p>Underwater footage of Hawaiian reefs, colorful fish, Humpback whales</p>	<p style="text-align: center;"><b>Introduction</b></p> <p>Exploring different areas in the ocean can be challenging to scientists, but it can also provide a wonderful opportunity to discover similarities and differences too!</p> <p>Consider Cordell Bank National Marine Sanctuary, which is located along the west coast of the United States and the Humpback Whale National Marine Sanctuary, located in the Hawaiian Islands.</p> <p>Both areas are located in the Pacific Ocean, but they are over 2,300 miles apart! Both have been chosen as National Marine Sanctuaries, America's ocean treasures, because of their special qualities.</p> <p>Peak beneath their misty waves and you will see an amazing amount of beauty and biological diversity. At Cordell Bank for example, you will see large schools of rockfish, brightly colored pinnacles, huge octopuses and a marvelous array of sea birds flying above the wind swept surface!</p> <p>The Humpback Whale National Marine Sanctuary, on the other hand, is home to colorful fish, small coral reefs and a huge population of humpback whales that visit every winter!</p> <p>Let's take a dive with a couple of</p>

<p>Interview with Dan Howard as he describes Cordell Bank.</p> <p>CBNMS Footage to support narration.</p>	<p>scientists who can tell us more about these interesting places.</p> <p>Dan Howard is the Sanctuary Superintendent of Cordell Bank National Marine Sanctuary.</p> <p style="text-align: center;"><b>Interview with Dan Howard</b></p> <p><i>“Cordell Bank National Marine Sanctuary is a spectacular off-shore site that is 20 miles west of Point Reyes and being away from a lot of the influences of the coast it’s pristine off-shore habitat and it not only provides a home for rockfish and sea stars but a rich local population it also provides a feeding destination for a variety of migratory animals, like Black-footed Albatross from the Hawaiian Islands and Blue whales from Costa Rica, Leatherback sea turtles. All of these animals come to Cordell Bank to feed on the rich bounty that thrives in the area”.</i></p> <p>Naomi McIntosh is the Sanctuary Superintendent of Humpback Whale National Marine Sanctuary.</p> <p style="text-align: center;"><b>Interview with Naomi McIntosh</b></p>
<p>Footage of coral reefs and the cold green waters of Cordell Bank</p> <p>An albatross skimming over the water at CBNMS</p> <p>Albatross feeding a chick off the coast of Ohau, Hawaii.</p> <p>Humpback whale swims in clear blue Hawaiian waters</p> <p>Humpback breaks the surface at Cordell</p>	<p><i>“Well approximately 2/3’s of the Humpback whale population in the entire north Pacific is thought to visit the Hawaiian Islands every year. They don’t arrive all at once we usually, generally tend to see Humpback whales come in small numbers at the beginning of the season, then the season peaks between February and March and then we start to see the numbers sort of dwindle after that”.</i></p> <p>There are some obvious differences between Cordell Bank and Humpback Whale national marine sanctuaries, but there are also some amazing similarities.</p> <p>Both areas are very important to sea birds,</p>

<p>Bank and then dives again for krill.</p> <p>Footage of underwater impacts to the marine environment, ship traffic, etc.</p> <p>Sanctuary scientist working in the field. Advisory meeting, volunteers in the field making a difference.</p> <p>Sun setting behind a NOAA ship off the coast of Maui.</p>	<p>for example. Albatross give birth to their chicks in Hawaii and then they travel to Cordell Bank to find food.</p> <p>Cordell Bank and Humpback Whale national marine sanctuaries are also very important to humpback whales.</p> <p>The Hawaiian Islands Humpback Whale National Marine Sanctuary provides warm clear water for mothers to help feed, nurse and give birth to their young, while Cordell Bank offers lots and lots of food for their humpbacks!</p> <p>Both marine sanctuaries also face similar challenges from society today. Over fishing, discarded nets, shipping activities, runoff from agricultural areas and introduced animals from other countries, or invasive species. .</p> <p>To help keep Cordell Bank and the Hawaiian Islands Humpback Whale national marine sanctuaries healthy, scientist today monitor changes to the diversity and abundance of the animal that live there. Concerned citizens, volunteers and advisory groups, work tirelessly to make sure that these sanctuaries are properly managed.</p>
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