

Our Ocean Backyard — *Santa Cruz Sentinel* columns by Gary Griggs, Director, Institute of Marine Sciences, UC Santa Cruz.

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Tracking the life of Ms. Blue



Blue whales are the largest animals that have ever lived on Earth.

Standing beside Ms. Blue, as she is affectionately known by the staff and volunteers of the Seymour Center, one can't help but feel dwarfed by the skeleton of this impressive creature. As far as we know, she is one of only four blue whale skeletons displayed in all of North America and one of only eight in the entire world.

- Santa Barbara Natural History Museum has a 72-foot specimen
- New Bedford Whaling Museum mounted a 66-foot specimen
- North Carolina State Museum displays a 65-foot specimen
- Worldwide there are blue whale skeletons on display in Canada, South Africa, New Zealand and Australia.

- At 87 feet long, Ms. Blue is the largest displayed whale skeleton in the world.

Dave Casper, our marine lab and campus veterinarian, took on the responsibility of reconstructing Ms. Blue when she was relocated next to the Seymour Center. When the project was completed and dedicated in February 2001, Dave gave a very touching talk about what her life must have been like. The following is taken from Dave's words on that special February day ten years ago.

The best estimate was that Ms. Blue was about 50 years old when she died in 1979, and at 87 feet long, was mature but still growing. She would likely have been born in the Sea of Cortez between December and March. Under ideal conditions she could have lived another 40 or 50 years and may have grown as long as 90 or 100 feet.

A good guess is that she was born about 1929, at the beginning of The Great Depression. This period was also a depressing time for blue whales. In 1930, during her first year of life, 30,000 blue whales were killed in the Antarctic in a single season. We believe that there were about 200,000 in the southern Polar seas at that time. But before blue whales were protected in 1966, whalers had slaughtered 350,000 of the world's largest animals.

The North Pacific blue whale population was always considerably smaller, perhaps 6000 in pre-whaling days. Norwegians sent factory ships to the Baja California in the 1920s, however, and took a total of 1300 whales, over 20% of the population. During her lifetime, about 9500 blue whales were killed in the North Pacific, and we believe that she was one of only about 2000 that survived the hunting.

Somewhat surprising for a state as environmentally conscious as California, one of the last two whaling stations in the United States was located in San Francisco Bay at Richmond. They were actively killing and processing an average of 175 finbacks, humpbacks and sperm whales a year up until 1971. You'll have to wait for that story until the next article, however.

Our whale was about 25 feet long and weighed about three tons at birth. She would have doubled her weight in the first weeks of life and at six months old, would have been about 50 feet long and weighed in at perhaps 23 tons. After a long spring migration north she would have been weaned somewhere in the North Pacific in June or July. Blue whales typically spend the summer months in the

North Pacific feeding and then may head south in the winter to the tropical waters off Costa Rica and Ecuador.

By the time she was ten, Ms. Blue would have been having a calf of her own every two or three years. In September when she died she would have been starting her fall migration back towards Baja. She was not pregnant so had likely weaned a calf that summer. By July of 1979, at the end of her nursing period, she would have lost nearly 50 tons in nurturing a 23-ton calf. She would have been eating three to four tons of krill a day during the summer to make up for that weight loss.

Her death off the coast of California in summer was a harbinger of change for North Pacific Blue Whales. We now think that something was starting to happen offshore to their food supply, the krill. Blue whales have always migrated both south and north along the Baja coast to feed. However, up to the time she died, they tended to avoid the U.S. coast in summer and fed farther out at sea.

She died at the start of a ten-year period when blue whale sightings along the west coast had doubled. This increase is too large and happened in too short a time to be accounted for by reproduction alone. Climate shifts throughout the Pacific Basin affect productivity, including krill abundance, and can span several decades. These changes in the distribution of their food supply probably drive whales inshore to feed during certain years. Perhaps that's why she was close to shore when she died.

We don't know why she died. Her body was too decomposed. But she's home now, and has become the symbol of our marine lab, and also of the often fragile state of life in the sea.