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A COOPERATIVE PROJECT OF THE SANTA BARBARA NEWS-PRESS AND THE EDUCATORS' ROUNDTABLE, PUBLISHED MONTHLY TO PROMOTE LEARNING AMONG YOUNG READERS IN NATURAL SCIENCE, HISTORY, TECHNOLOGY AND ART

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## This Month's Theme: Whales

### Conservation of Humpback Whales in California Waters



Humpback whales are known for their long pectoral flippers and acrobatic behaviors such as breaching. Photo courtesy of Condor Express.

Did you know that California is the major feeding spot for more than 700 humpback whales? Humpback whales (*Megaptera novaeangliae*) are an endangered species. Scientists think that approximately 10,000 humpback whales exist in the world's oceans today.

Since 1986 biologists with Cascadia Research have been studying the local humpback whales. All humpback whales have unique black and white markings on their flukes (tail) and the edges of their flukes have different shapes. When scientists identify individuals from pictures, they call it photo identification (photo-ID).

When photographs are taken of humpback whales, researchers mark the location using a global positioning system (GPS). They use this to track humpback whale movements all over the Eastern North Pacific Ocean. California humpback whales spend their sum-

mers feeding in the Santa Barbara Channel, but scientists are still learning where they go the rest of the year. Many of the same whales have been found in the waters off of Mexico and Costa Rica through photo-ID research.

Photo-ID research has also been used to determine the number of California humpback whales. Since the early 1990's the number of humpback whales has been steadily increasing. Researchers were alarmed when their numbers suddenly dropped in 1998. The theory for the rapid decline is that either a harmful algae bloom or the El Nino that year affected the food chain. This may have caused some whales to get sick and die, or they simply may have gone somewhere else to feed.

The good news is that through continued photo-ID research we are seeing an increase in humpback whale numbers off our coast.

### Summer Whale Watching in the Santa Barbara Channel

Summer is a great time to go whale watching! Over 28 species of Cetaceans, or whales and dolphins, have been seen in the Santa Barbara Channel. In fact, the coast of California has the most blue whales in the world! Humpback and blue whales can give quite a show while feeding on krill (tiny shrimp-like crustaceans) in the nutrient-rich waters of the Channel.

You can experience the wonders of the Channel Islands on a variety of local whale watch boats. Many of the boats have specially trained Naturalists on board to help you learn about the marine mammals you see. The Naturalist Corps volunteer program is sponsored by the Channel Islands National Marine Sanctuary and National Park. For more information about getting involved, or naturalist guided tours, please visit the sanctuary website or call (805) 382-6149.

From May through October you can see lots of marine mammals, such as:

- seals
- common dolphins
- bottlenose dolphins
- sea lions
- Dall's Porpoise
- Risso's Dolphins
- blue whales
- minke whales
- humpback whales



Common Dolphins are known for swimming next to boats. Photo courtesy of Shane Anderson.



Whale watchers getting a glimpse of a blue whale, the largest animal on earth. Photo courtesy of Condor Express.

#### Learn More about Whales by Visiting these Websites:

- www.channelislands.noaa.gov
- www.sbnature.org
- www.acsonline.org
- www.cascadiaresearch.org
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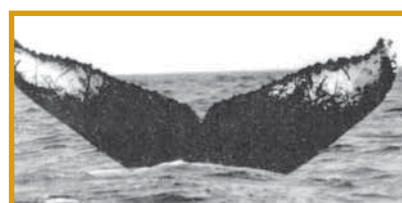
### Whale Tail Matching Activity

Become a research biologist by matching humpback whale flukes (tails)! Matching pictures of fluke shots of humpback whales helps scientists find out how many whales there are, how old they are, and learn about the migrations of these gentle giants.

Matching Clues: Look at the edge of the flukes, look for orca teeth marks/ scars, and compare the white and black colors. Remember, barnacles cannot be used to match humpback whale flukes. They are living organisms that can die or fall off the whale.



One of the six pictures below matches the fluke in the above photograph. Can you find which one matches? The answer is below.



ANSWER: THE BOTTOM PICTURE ON THE RIGHT SIDE IS THE ONE THAT MATCHES.

Images courtesy of Cascadia Research.

### Blue Whale Skeleton Restoration

The Santa Barbara Museum of Natural History's biggest exhibit is its 72-foot blue whale skeleton. This is one of the few complete blue whale skeletons on public display in the world. Museum visitors have enjoyed touching it for almost 20 years! Unfortunately, the skeleton has become damaged over time by weather and people. To save this unique skeleton, it will be roped off late this summer, and whale jaw bones will be put out for people to touch instead. The Museum is also planning to make a cast of the blue whale skeleton. To learn more about this project, call the Museum's Development Assistant at 682-4711 ext. 345.

The blue whale skeleton at the Santa Barbara Museum of Natural History will undergo some changes this summer.




Page by Shauna Bingham, Channel Islands National Marine Sanctuary and Sarah Jolly, Santa Barbara Museum of Natural History.

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