

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

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**Killers in the Bay**

Orcas have been hunting in the bay recently, dining on one of their common foods, gray whale calves. Mother grays and their calves are in the midst of their annual migration from their nursery grounds in the lagoons along the coast of Baja California to their summer feeding grounds in the Bering Sea. It's a rough journey for a young calf.

While the migrating whales generally hug the coastline for some degree of protection, crossing Monterey Bay is one of the hazardous areas on their long journey because of the deep waters of Monterey Submarine Canyon where the orcas can attack from below. While orcas can be in the bay any time of year, they tend to be more common during April and May when the gray whales are swimming north. The food supply is just better in the spring months.

Seeing a pod of orcas attacking a young helpless gray whale calf is not a particularly pleasant site to witness for anyone on a whale watching boat, but everything out there in that huge ocean has to eat something, and the orcas are no exception. Because of their size, with males typically being about the size of a small school bus (typically 25-30 feet long and weighing up to 6 tons) they need to eat about 500 pounds of something every day.

Females tend to be smaller, 20 to 25 feet long and weighing three to four tons, but they also have large appetites. These are big mammals from birth, starting life at about 400 pounds and 8 feet long. Despite this healthy start, however, mortality is extremely high in their early months, with up to 50% of all calves dying in the first seven months of life.

Interestingly, males on average only live about 30 years, whereas females average more like 50 years, with a few making it to 90. In captivity, however, their life spans are generally shorter.

When you require four or five hundred pounds of food every day, you need to either spend a lot of time searching for food or else manage to find some relatively large things to eat. There is some belief that the original word for orcas or killer whales was actually asesina de ballenas, or whale killers, based on Basque whaler's observations of groups of orcas hunting whales.

Whale killers makes more sense than killer whales, simply because they are not whales at all, but actually the largest member of the dolphin family. They are also one of the world's largest and most powerful predators, and will feed on other marine mammals, seals, sea lions, dolphin as well as whales, with some pretty impressive teeth. And killer whales, like banana slugs, have no predators.

They have been photographed pulling seals off the beach or washing them off of ice floes by creating waves. They also eat fish, squid, and seabirds, although those that dine on seals, sea lions or whales, tend not to eat the smaller stuff, and vice versa.

Years of observations also indicate that there at least two different groupings of orcas, those that tend to hang out in a particular place, like the Puget Sound and San Juan Islands area, and those that move around a lot, like those along the California coast. Those that stick around a home base tend to dine on fish, while those that migrate, like those passing through Monterey Bay, prefer marine mammals.

While these huge carnivores have been known to attack large leopard seals and even great white sharks, there have been only a handful of encounters in the wild between humans and orcas, and there has never been a fatality.

On the other hand, there have been dozens of incidents involving captive orcas injuring trainers, whether these were a result of attacks or playful behavior is difficult to know in each case.

The most common incidents have involved either a person being grabbed and taken down to the bottom of a pool and then held there, or an orca chomping down on some part of the trainer's body, whether arm, leg or torso, typically with some major injuries. And there have been at least three recorded fatalities in these SeaWorld parks. Perhaps they are trying to tell us something.