## Why Are Gray Whales Curious About Human Whale-watchers? by Steven L. Swartz, Ph.D. Laguna San Ignacio Ecosystem Science Program 28 September 2016



When I speak to eco-tourists visiting Laguna San Ignacio they frequently ask me "Why are gray whales in Laguna San Ignacio 'curious' about people in small boats? Why do they swim up to our whale-watching boat and allow us to touch them? Why will female whales bring their calves to our boat to be petted and rubbed by the whale-watchers?"

The short answer is "we don't know", because we are not gray whales, and we will never understand completely the whale's interest in approaching whale-watching boats. However, after 30-years and thousands of hours observing gray whale behavior around boats, I can share with you my thoughts on the special circumstances that contribute to the "curious" whale behavior that we see in Laguna San Ignacio.

Mary Lou and I first encountered "curious" or "friendly" gray whales in the late 1970s while conducting research on the gray whales in Laguna San Ignacio. At first these were rare events, but within a few years gray whales approaching and making contact with whale-watching boats and their passengers became a common occurrence during the whales' winter breeding season.

I suspect this behavior is the result of many things that all occur simultaneously in Laguna San Ignacio. The present generation of gray whales have not been hunted or harassed by humans, and they have no pre-conditioned fear of the whale-watching boats. Commercial hunting of gray whales in the Baja California lagoons ended in the 1870's. We know from our photographic identification records that the ages of the female whales that bring their calves to Laguna San Ignacio today are from 26 to 47 years old, and that the oldest gray whale ever examined was approximately 76 years old. Any gray whales that were hunted by Yankee whalers around Baja California would need to be well over 100-years old, and they probably do not live that long.

Today Laguna San Ignacio is a non-threatening environment for the whales. There are no killer whales (Orcas) inside, and the whale-watching and fishing boats do not chase or harass the whales. Human activities inside the lagoon are managed as part of the Vizcaino Biosphere Reserve to minimize disturbance to wildlife and to sustain the lagoon as a wildlife reserve. Whale-watching is only permitted in a specific "zone" nearest the ocean entrance, and the remainder of the lagoon (about 2/3 of the total area) remains as a sanctuary for the whales. The number of whale-watching boats operating in the "zone" is limited to not over crowd the zone. Most importantly, the whale-watching boat operators do not pursue or chase the whales. Rather they simply put their boat and its passengers in the presence of whales, and wait for the whales to come to them.

Most gray whales do not approach the boats because they are pre-occupied with courtship and mating, and caring for their newborn calves. But each winter a few whales are interested enough to approach a whale-watching boat to investigate, or at least to have a good look at the boat. Gray whales' eyes are positioned on the sides of their head and adapted for looking down and forward, presumably to aid them in searching for food and to navigate while they swim along the ocean floor. So it is common for a gray whale to turn itself upside down when approaching a boat to look "up" at the boat from below.



Because the visibility underwater is very limited, all cetaceans have evolved ways to use underwater sound to explore their environment and to communicate with each other. The sounds made by gray whales are in the low frequencies, similar to the sounds made by outboard motors on the whalewatching boats. The whale-watching boats are made of fiberglass, and act like a hi-fi acoustic speaker that broadcasts the low frequency vibrations from the outboard motor into the water, and the whales hear these sounds and they know when boats are near. Like all mammals, gray whales are curious about their environment, especially when they are young. They constantly explore their environment and

learn what is safe, and what should be avoided. So, it is not unreasonable to think that gray whales hear low frequency sounds coming from the whale-watching (and fishing) boats, and not being afraid of the boats, they will approach to investigate these floating objects that make low frequency "buzzing" sounds.

The whales' approaching behavior is probably reinforced by touching and contacting the boat, which allows them to feel the buzzing vibrations of the boat. In general, all cetaceans touch and rub each other from birth, which is believed to facilitate social bonding and reinforce companionship. Imagine a newly born calf that cannot see it mother because of the limited visibility in the water. The mother whale is just a large dark object that makes low-frequency rumbling sounds, and provides the calf with nourishment, companionship and protection. Young calves are in constant physical contact with their mothers, rubbing and rolling over them for security, protection, and food. Later as calves mature in the lagoon they meet other young calves and interact in groups before they leave the lagoon in the spring and begin their first northward migration with their mothers. This is the time when they are exploring and learning about their environment. It is reasonable to conclude that after they approach a boat full of whale-watchers, the rubbing and petting by humans further reinforces the whales' approach behavior, for the calves as well as for the adults.

Without a doubt it is thrilling when a large, wild, free-ranging gray whale appears to be interested in humans in boats that come to see the whales. But whether a gray whale approaches you or not, protected marine reserves like Laguna San Ignacio give us an appreciation for the magnificence of these large cetaceans that is unequalled by any other whale-watching experience. We like to say that "it is not important if you touch a gray whale, but it is important if the gray whale touches your heart!" For whatever their reasons, gray whales are making an impression on the human visitors to Laguna San Ignacio.

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