

2009 Interpreter's View #1

A collection of interpretive ideas created on a weekly basis by the Año Nuevo docent trainee class of 2009

Topic: Marine Mammals Presenter: John Sanders

Frequent Flyer (Swimmer) Miles???- Relating information to the visitor's experience is the main principle of good interpretation. So, has anyone flown to Europe lately? That's about 6000 miles one way. About the same distance a gray whale travels when it migrates from the Bering Sea to Scammon's Lagoon, Baja, California for its yearly birthing and mating event. Same is true for elephant seals, except their one way journey from Alaska to Año Nuevo is 3000 miles. About the same as a flight from San Francisco to New York.

Who owns a down jacket AND a wet suit?... Whether it's for extremely cold weather or extremely cold water, insulation is critical. In Arctic weather, three inches of down or thinsulate will keep you as warm as a seal, whose 3 inches of blubber works quite well even in cold Pacific waters. Speaking of water, a 3 to 5 millimeter wet suit (1/4 inch) is what surfers/divers wear when they jump into that same cold Pacific water for a couple of hours, any longer and you'd need a 3 inch thick wet suit, (70 millimeters)...just like a seal.

Who turned out the lights??? If the room went black, you would immediately stick out your hands to navigate in the darkness using your highly developed sense of touch to find your way about. Since low light, leading to darkness, is the rule when you dive deep like a seal, these pinnepeds immediately stick out their whiskers, like a halo around their wonderfully cute faces (whiskers are also known as *vibrissae*, meaning to vibrate or to pick up vibrations). Seals can pick up and pursue the vibrations of swimming fish long after they have passed by that seal underwater, much like our eyes can see the wake of boat after it has passed by. Speaking of (a)cute senses, a seal's baby brown eyes are super big for visibility in super low light conditions, as well.

Crazy Comparisons.... If you compared yourself to marine mammals, it might look like this:

YOUR NOSE...compared to a sperm whale's nose that weighs 15 tons...his nose is as big as a house or whatever else you can think of that weighs 15 tons.

YOUR EATING HABITS...compared to a sea otter that eats one and a half times its body weight in food each day. If you weigh 100 pounds, that means you'd have to eat 150 pounds of food a day....OR... 600 Big Macs. Now you all know that the sea otter has no blubber layer like a gray whale, who eats 2400 pounds of food a day, or 4% of its body weight. Blubber is an adaptive blessing... if you were a whale, at 100 pounds, you'd only have to eat 10 Big Macs or 4 pounds a day to keep yourself in a "whale" of a good shape.

YOUR HAIR... no, let's use your dog's hair instead. Take all the hair off an average dog and you would have the same amount as found in a quarter size (1 sq. inch) patch of otter fur.

YOUR SKIN...the average human sheds about 2 pounds of skin a year...a dolphin or porpoise sheds all its skin every 2-4 hours. You could say elephant seals get scalped once a year...that's hair, skin, and partial roots that become unattached... Catastrophic.

YOUR SIZE...in dogs...It would take one hundred 50-pound dogs to equal a male elephant seal.

Here Boy! Here Girl! Come here Honey! Imagine you and your dog were in a crowd of 100 similar dogs...(lets say, national golden retriever day at the dog park). Would your dog recognize the sound of your voice??? I bet s/he would, and they would definitely recognize your scent. Put 100 seal or sea lion pups on a breeding area beach and ask Momma to find her baby. Mother pinnepeds instinctively set up a sound/smell relationship

with their pups so they can find each other in a crowd. Here is a way to make this phenomenon more real and involving for a group of visitors that have small children with them. Put the kids up front, have them close their eyes, then have various parents yell “dinner time”. Children should raise their hand when they recognize their parent’s voice.

The Natives are Restless... Native cetaceans (dolphins, porpoises, and whales) that is.... so the native drums are talking tonight... Communication by vibration...that’s the crux of the communication game. Whether it’s contact by drum beat, Morse code, or underwater clicking and drumming...meaningful interaction is the objective. All sound is vibration and underwater vibrations can travel for miles, making airborne sound a poor second in effectiveness. So the cetacean society abounds in sound. Their sonar is as highly developed as our electronic underwater communications. Involve your visitor group in an interesting sonar game. Tell visitors to voice the word “click” as they pass the palm of their hand across their faces an inch from their mouths. Notice the echo as it crosses the lip area. Accent this echo sound by cupping your free hand behind one of your ears.

We’re Trying to Help Just like You... Stranded pilot whales always draw a crowd of humans who are trying to send the distressed whales back out to sea. Researchers hypothesize that in this group of whales, only one individual is in actual trouble, and that the rest of the grounded whales, just like the group of human rescuers, are trying to help their grounded fellow whale. No wonder there is kinship between humans and whales.

Pack it in Bubble Wrap... Who invented bubble wrap anyway?...must’ve stolen the idea from a sea otter, then turned around and made a million bucks on it. Let me explain... When sea otters seem to be lazily lounging in a kelp bed, nosing and fluffing their fur, they are actually blowing air into their fur while they groom themselves. To put it metaphorically, they are wrapping themselves up in bubble wrap. This is a truly inventive way to insulate themselves from the cold, icy waters of the Pacific.

Run Silent, Run Deep... During World War II, German submarines traveled about in “Wolf Packs,” seeking their nearly helpless prey in the shipping lanes of the Atlantic. They traveled as silently as possible, so as to avoid any sonar detection. A new sort of “Wolf Pack” is stalking the migration lanes of our own Pacific shoreline. Transient killer whales, whose prey is seals and whales, tend to shut down most of their underwater clicking and drumming communication in order to sneak up undetected on these marine mammals.

Just like a Car’s Radiator... After the car’s engine is warmed up, you can turn on the heater and warm yourself up. The heat generated by your car’s internal combustion engine is warming up your cold extremities (hands, feet, etc.) through a system of hot liquid exchange. That’s just like a seal’s radiator... In a seal’s circulatory system, the warmer blood-carrying arteries are adjacent to the cold venal blood that is returning from the seal’s chilly extremities, preheating this frigid, life-giving fluid before it reaches the heart.

Kidnapping, the Positive Aspects... No we are not talking about someone kidnapping your teenager....no one in their right mind would do that, would they? It seems that some pinniped groups have resorted to kidnapping to further their personal gain. Researchers tell us that the female sea lion and fur seal often leave their pups to go on feeding ventures, later to return, seek out, and reunite with that pup. They always find and join back up with their offspring no matter how large the breeding area. Researchers are finding out that they aren’t the only ones who are aware of that behavior. It seems that male sea lions and male fur seals will kidnap the temporarily abandoned pup, in order to bring it into their territory. When Mom returns and enters their domain in search of junior, these abductors then demand their territorial right to mate. Clever, clever boys.

Double Heart Attack... Several marine mammals lower their heart rate when diving in order to conserve oxygen, some as low as 3-4 beats per minute. In human terms, that’s a heart

attack. Then the same seals will move about briskly and cause their heart rate to go up to 120 beats a minute. In human terms, that is also a heart attack.