## Green Scene: Appreciating our Marine Mammals

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This fin whale was sighted by birders on a pelagic birding trip off Tofino on Sept 20 2014. John Reynolds photo.

How often do you think about our coastal water and all the wildlife species sustained by it? Like many people, you may find views of the relatively calm waters of Georgia Strait and the nearby Pacific Ocean to be somewhat serene. But, under these waters, there is a busy thriving ecosystem of marine life which supports an impressive number of marine mammals including 25 species of cetaceans (i.e., whales, dolphins and porpoises) and 6 species of so-called carnivores (northern fur seal, Steller sea lion, California sea lion, northern elephant seal, harbour seal and sea otter). Together these species comprise a quarter of all the marine mammals found in the world. Despite this aquatic diversity along the BC coast, over 40% of these species are considered to be at risk.

While evidence suggests First Nations historically hunted marine mammals on a sustainable basis, things changed quickly once the Europeans appeared. Within two decades of their arrival in 1770s, sea otters were hunted to the verge of extinction along BC's coast. These otters did not reappear until they were introduced from a stronghold in Alaska in 1969. Fur seals were the next species to be targeted.

Hunting of them continued throughout the 1800s until the North Pacific Fur Seal Convention finally protected their dangerously dwindling numbers in 1911.

Whales, a critical source of oil until the development of the petroleum industry, were also hunted exhaustively starting in the 1800s. In the 1860s, there was even a humpback whaling industry in the Strait of Georgia although it did not take long for this small population to be reduced to the point that it no longer supported whaling. By the time shore-based whaling completely ceased in BC in 1967, it is estimated that over 25,000 whales, including blue, sperm, fin, sei, humpback, right and the small minke whales had been killed in the 20th century. Because whales tend to be long-lived species with slow reproduction rates, it has taken many decades for their populations to rebound. Although whales first returned to the more remote north coast of BC, there are now increasing sightings even within the Salish Sea which includes the Straits of Georgia, Juan de Fuca and Puget Sound.

Most of the formerly-hunted whales of BC remain as species at risk. The north Pacific right whale, sei, blue and sperm whales, all of which are infrequently spotted in BC, are found far from shore. Of these species, only the sperm whale is considered to not be a species at risk. Fin, humpback and grey whales are found closer to the BC coast where they feed in more shallow waters. Fin whales, a threatened species and second only in size to blue whales, are found mainly along BC's central coast where they seem to be particularly vulnerable to ship strikes. Cruise ships from Alaska have arrived in Vancouver harbour with dead fin whales draped over their bulbous underwater bows.

Grey whales which regularly migrate along our coast from calving areas in California are a species of concern, one step less at risk than threatened. Protected since 1937, the grey whale population is now considered to have reached historical abundance. Sightings of grey whales along the coast have become fairly common in recent years much to everyone's delight. For a few years, there was even a grey whale which foraged in the Port Moody arm of Burrard Inlet on its way north each spring.

Humpbacks, known for their spectacular cooperative fishing technique of creating a net of bubbles, were down-listed to a species of concern earlier this year. While the highest numbers of humpbacks in BC tend to be found near Haida Gwaii and the central coast, sightings have become increasingly common in the Strait of Georgia as their numbers rebound.

My colleague, Rod MacVicar, reports he often sees harbour porpoises and killer whales in Howe Sound. Last year, a small pod of Pacific white-sided dolphins were spotted in Indian Arm. It is really exciting to see evidence of marine mammals returning to our waters. The whale-watching industry in the Salish Sea is now thriving and apparently provides 400 jobs a year throughout Puget Sound, Victoria and Vancouver.

However, despite the comforting knowledge that marine mammals appear to be making a comeback after years of persecution, they now face a number of new challenges. One of these is pollution from chemicals in our sewage and rainwater runoff. Studies have shown that local killer whales are so highly contaminated with persistent organic pollutants such as PCBs that their carcasses should be considered toxic. The most contaminated group of orcas is the southern resident killer whales which live close to where most of the population of BC resides. A more recently-identified threat is the large amount of plastic now found in local waters. Small bits of plastic have been shown to be ingested by plankton upon which grey whales feed. Larger pieces of plastic such as abandoned fishing nets entangle species such as humpbacks. An increasing amount of noise from vessel traffic makes it hard for whales to communicate with each other. Finally, the threat of diluted bitumen spills from increased oil tanker traffic is another huge

concern. The killer whales in Prince William Sound have never recovered from the oil spilled by the Exxon Valdez in 1989.

It seems to me to be sadly ironic that just as many marine mammals appear to be returning to local water, we are now considering a huge increase in marine tanker traffic that will create new threats to their survival.