Killer whales taking over

Hungry orcas could change the way of life in Hudson Bay

By Lindsey Wiebe, Canwest News Service March 11, 2009

The western Hudson Bay has had about 40 orca sightings since 2000, 10 of them in the last two years.

Photograph by: Getty Images,

Scientists fear melting sea ice could one day make killer whales the Hudson Bay's top predator, a startling ecosystem shift and a blow for Inuit populations already suffering from dwindling polar bear numbers.

After four years of studying the Arctic's little-known orcas, researchers have more evidence that their numbers have gone up in recent decades, a change that's particularly noticeable in the western Hudson Bay bordering Manitoba.

"That area had never seen killer whales, despite all the commercial whaling that went on for centuries," said Steve Ferguson, a Winnipeg-based research scientist with the federal Department of Fisheries and Oceans. "There's no record of them."

Scientists also believe orcas in the Arctic feed on other mammals, not fish, which could spell trouble for potential prey such as beluga whales and narwhals -- as well as the Inuit who depend on them for subsistence hunting.

Ferguson and his team of graduate students began investigating the Arctic's orcas in 2005. The study receives close to $100,000 a year, provided mostly by the government of Nunavut.

So far, Ferguson said, the data has confirmed for researchers what northerners have said all along.

"They found this almost exponential increase in sightings," particularly in the Hudson Bay, he said.

"It really surprised us, and confirmed what the traditional knowledge was, that there's more killer whales."

The western Hudson Bay has had about 40 orca sightings since 2000, 10 of them in the last two years.

That's compared to just half a dozen sightings in all of the 1990s, and the same number in the 1980s. Before the 1940s, there were no accounts of orcas in the area, said Ferguson.

Along with the database of sightings, researchers have identified 67 individual whales by carefully scrutinizing photos snapped by northern residents, guides and researchers over the past four years.

That might not seem like a lot, said Ferguson, but it proves the appearance of orcas is no fluke. He said there are likely more of the cetaceans in the vast northern waters.

Ferguson said the increase in Arctic orcas is likely due to a loss of sea ice in the Hudson Strait going back to the 1940s, which allowed animals to enter the Hudson Bay more easily.

Sea ice loss has already caused problems for polar bear populations, and it's bad news for marine mammals like belugas, narwhals and bowhead whales, which rely on ice to evade orcas.

"As they lose the ice, they're going to lose protection," Ferguson said.

Local hunters and elders are adamant that orcas in the Arctic feed on other whales and seals, said Ferguson, unlike the fish-eating variety typically kept in aquariums. He said he hopes that information can be confirmed by studying growth rings on killer whale teeth.

Most killer whales show up in northern Canada in August and leave again in September, said Ferguson, but scientists don't yet know where they go in winter.