From: Tag
To: MakahDEIS.nwr@noaa.gov;
Subject: FW: Attn: 2008 Makah DEIS MakahDEIS.nwr@noaa.gov - Whale article population
Date: Thursday, June 12, 2008 10:44:23 AM

To: 'MakahDEIS.nwr@noaa.gov'
Fr: A. Tagland, Kirkland, WA
Subject: Attn: 2008 Makah DEIS MakahDEIS.nwr@noaa.gov - Whale article population

Hello: The article I have included below written several years ago talks about current Whale populations cast doubt over suggestions that existing whale populations have recovered enough to allow whaling to resume. I hope you will not endorse the future Killing of Whales as requested by the Makah Tribe. Whether or not a "Treaty" was signed, the people "back then" had very different ideas & values.

Now we have more information & historical perspective. Present day Universities, Community Colleges & public education in general & the Internet did not exist as does today. With much more insight & knowledge about our natural world, we must use our knowledge & apply it correctly.

I am hopeful "We" can work together as Americans & as part of the Global Community to save our natural resources, including biological diversity such as still exists & in our power to protect or destroy. I am hopeful the Makah Tribe can ceremoniously display their connection to the Whales without killing them.

Thank you.

EUROPEAN CETACEAN BYCATCH CAMPAIGN
"Man is but a strand in the complex web of life"

Research claims staggering drop in number of whales

By Steve Connor, Science Editor
25th July 2003
The Independent

When an English Puritan minister crossed the Atlantic Ocean to the New World in 1635 he marvelled at the sight of "mighty whales spewing up water in the air, like the smoke of a chimney" Richard Mather's journal also records him rejoicing in the "multitude of great whales, which now was grown ordinary and usual to behold".

For years whaling experts have relied on such eyewitness accounts, along with the log books of whaling captains, to assess the size of the whale population before large-scale hunting began in the 19th century. Now it seems reliance on such travellers' tales may have led to a serious misunderstanding of whale populations at the time - possibly underestimating numbers by as much as 10-fold.

The International Whaling Commission (IWC), for example, estimates that the population of humpback whales in the North Atlantic now - about 10,000 - is about half of what it was prior to whaling.

However, two marine biologists have questioned the basis of these estimates after a study of the genetic diversity of three species of baleen whales - humpback, fin and minke - living in the North Atlantic.

According to their findings, the number of humpback whales in the Atlantic prior to 1800 was not 20,000 as the IWC suggests, but a staggering 240,000.

The implications of the research - published today in the journal Science - are that many whale populations hunted by humans are far more precariously balanced than once thought.

Stephen Palumbi, professor of biological sciences at Stanford University, who carried out the study with Joe Roman, a graduate student at Harvard, said that the findings cast doubt over suggestions that existing whale

populations have recovered enough to allow whaling to resume after a 17-year moratorium.

"The IWC is the main organisation that regulates whaling, and its policies allow for the resumption of commercial hunting when populations reach a little more the half of their historic numbers," Professor Palumbi said.

The problem is that the IWC bases its historic estimates on records dating back to the mid-1800s. "Whaling logbooks provide clues, but may be incomplete, intentionally underreported or fail to consider hunting loss," he said.

The two scientists analysed DNA samples taken from 188 humpbacks, 235 fin and 550 minke whales in the North Atlantic to estimate the amount of genetic diversity among these whale populations today.

The two researchers calculated how many breeding females would have been necessary to accumulate such genetic diversity, and extrapolated these figures to estimate historical population sizes.

They found that pre-whaling numbers of fin whales in the North Atlantic alone were probably about 360,000, roughly 10 times higher than the IWC's estimate, and that minke whales once numbered at least 265,000, roughly twice the number recorded as the natural population size by the IWC.

"The genetics we've done of whales in the North Atlantic says that, before whaling, there were a total of 800,000 to 900,000 humpback, fin and minke whales - far greater numbers than anybody ever thought," Professor Palumbi said.

Even though the population of humpbacks today is small because of whaling, the genetic signal measured by the scientists persists for a long time "And that past signal is far higher than it should be if there were only 20,000 whales in the North Atlantic," he said.

A similar conclusion can be made about fin whales. The IWC estimates that there are bout 56,000 fin whales in the North Atlantic, which is about 16,000 whales more than its estimated historic population of 40,000.

"Somehow we have to reconcile those numbers. That's going to require going back and looking at the whaling records. Are they complete? Have there ever been large hunts of whales that weren't recorded? These are things that we have to find out," he said.

The study only looked at North Atlantic whales, but the scientists said the figures can also be used to assess historic global populations. Worldwide, the humpback population was once as high as 1.5 million, more than 10 times bigger than the IWC estimates, they said.

However, the researchers do not know precisely when whale numbers reached such levels and why they plummeted.

Some researchers suggest that it is quite feasible that whale numbers were much greater hundreds of thousands of years ago, but fell to smaller numbers long before the invention of large-scale whaling.

Despite acknowledging this weakness, the two researchers are adamant that commercial whaling should not be allowed to resume. "In the light of our findings, current populations of humpback or fin whales are far from harvestable," the professor said.

Boris Worm, a marine biologist at Kiel University, said: "This new [study] shows us that, despite recent population increases, we are still far away from our goal of allowing whales to recover fully from relentless exploitation."

Species under threat:

HUMPBACK WHALE

Humpback whales feed on krill and small fish. Each whale eats up to 1.5 tons of food a day. It has a series of 270 to 400 fringed overlapping plates hanging from each side of the upper jaw, where teeth might otherwise be found.

FIN WHALE

The fin, or finback whale is second only to the blue whale in size and weight. Among the fastest of the great whales, it is capable of bursts of speed

of up to 23mph, leading to its description as the "greyhound of the sea".

MINKE WHALE

Minke whales eat a wide range of fish and squid, as well as krill and other plankton. The minke whale is the smallest of the rorquals, measuring between 8 and 10m in length and weighing between 8 and 13.5 tons.

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