Beluga whales in danger of extinction: NOAA

April 20, 2007

Courtesy of Far North Science
By Doug O'Harra

The isolated and ever dwindling beluga whales of Cook Inlet - one of the smallest distinct populations of marine mammals on the planet - should be listed as endangered under the federal Endangered Species Act, NOAA Fisheries announced Thursday (April 19).

Tagging a beluga in Cook Inlet near Anchorage
Credit: NMML

Only about 300 of the intelligent fish-eating whales roam the silt-saturated tidal arms of upper Cook Inlet near Alaska's urban center - a 75 percent drop from 1,300 animals estimated only three decades ago. Biologists concluded the whales have a one in four chance of going extinct within 100 years, according to an official status review released in December.

The proposal, to be published April 20 in the Federal Register, will undergo a year-long review with public comment before written into law, modified or rejected by the agency.

Expect battle lines. Previous attempts to list the whales have landed in the Alaska Supreme Court. This time, the issue will trigger emotional arguments about whether human activity near Anchorage, Alaska's largest city, has damaged a unique whale population isolated from its species since the end of the ice age.

The plight of the whales will also raise troubling questions about federal priorities. While more than $120 million has been spent investigating the biology of Steller sea lions in Alaska, the National Marine Fisheries Service has barely enough money to pay for a spring count of Cook Inlet belugas. No one knows enough about their ecology, family groups, winter diet, critical habitat and response to humans.

"Funding is minimal," one federal biologist said.

Among other actions, such a listing would force federal agencies to make sure belugas and their habitat would not be harmed by construction of a $600 million crossing over Knik Arm, one of the Alaska projects lampooned as a "bridge to nowhere." (The Knik Arm Bridge and Toll Authority sponsored a detailed study of belugas that concluded the whales don't use the crossing site much but pass it when traveling up Knik Arm.)

Other questions might focus on Cook Inlet's industry and waste management. Should federal agencies, for instance, continue to allow oil platforms to discharge untreated drilling waste into the ocean where belugas swim? Should Anchorage continue to receive EPA wavier to release sewage without secondary treatment? Answers, when they come, might be difficult.

Belugas swimming in
Knik Arm by Anchorage
Credit: Janice Waite, NMML

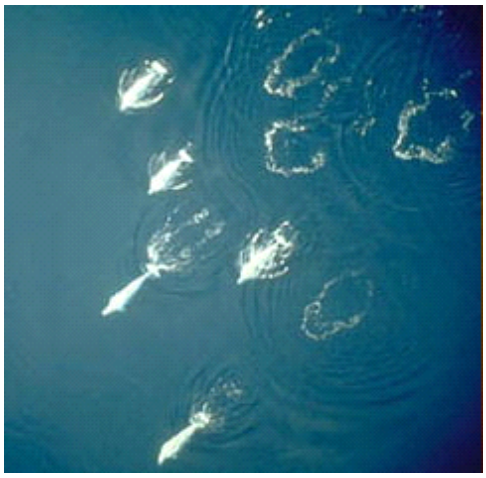
For thousands of years, white adults and gray adolescent beluga whales roamed Cook Inlet in pursuit of salmon and hooligan, from the treacherous tidal flats near Anchorage to the broad oceanic bays near Homer and the Katmai coast. The Inlet's first residents left signs of beluga in their ancient middens. The Denaina Indians took whales for food long before Europeans settled. Modern residents delight in the twinkling sparkle of white belugas rising to breathe in the tidal rips of Turnagain Arm.

Then the population - which never intermingles with other Alaska belugas in Bristol Bay and the Bering Sea - crashed by more than 50 percent during the 1990s in a drop biologists blamed on almost entirely on unregulated overhunting by Alaska Natives.

By 1998, the whales had slipped to about 350 animals. The agency began restricting the hunt under a special provision written into the Marine Mammal Protection Act, and a proposal to list the whales as threatened or endangered was rejected as unnecessary.

Since hunting caused the whales to crash, the argument went, controlling the hunt would allow them to recover.

But in lawsuits and public forums, conservationists and certain Native groups argued that blaming Native hunting was unfair and ignored other factors. No one ever studied the impact of shipping, industrial noise, commercial fishing, pollution from oil production platforms, sewage discharges from Anchorage and other Cook Inlet communities, changes in fish abundance. ESA protection would require scrutiny of these elements and give the whales their best chance.



Belugas swimming / NOAA

In the early 2000s, scientists did get funding to investigate where they spent the winter. Federal biologists caught and put satellite tracking tags on several belugas. To their surprise, the belugas remained in the upper Cook Inlet waters all

winter, even venturing into areas that become clogged with ice.

Why the whales had contracted into fraction of their former range - the shallow and harsh tidal flats close to Anchorage - became one more mystery surrounding their decline.

With harvest limited to one or two animals per year (only five whales have been harvested since 1999), and other strict guidelines in place, biologists expected the whales to produce 13 to 20 gray babies per year while losing maybe a dozen whales to strandings and other deaths. Each year, the whales were supposed to slowly increase in number. But the rebound never came.

Since 2004, only 25 belugas have been confirmed dead from all causes - less than the dozen whales expected to die per year from natural causes, said beluga management biologist Barbara Mahoney. But no one knows for sure how many whales were born.

Beluga calf and mother
Credit: Janice Waite/NMML

Gray beluga calves are almost impossible to see in the Inlet's roiling silty waters. They take about five or six years to mature and turn white. Mahoney said she hoped that a surge in numbers would appear when the grays matured and became easier to spot.

"I was expecting (to see) all the grays born after 1999," she said earlier this week. "I was expecting that in 2005, we would start seeing more whites, and the population would jump. But the trend is down."

Based on aerial surveys in June, 2006, the agency estimated that only about 302 belugas remained in the upper Inlet last year. The results suggest the population has slipped 5.6 percent per year since 1994 and a 4.1 percent per year since hunting became regulated in 1999.

As a result, the whales face a 26 percent chance of becoming extinct within 100 years, according to a status review released last winter. "It is likely that the Cook Inlet beluga population will continue to decline or go extinct over the next 300 years unless factors determining its growth and survival are altered in its favor," the agency wrote.

Even with such calculations, it won't be simple. Sorting out whether Alaska's most urban whales deserve the strictest level of protection offered by federal law will throw the state's commercial hub and its residents into a classic ESA scrap over values, the likes of which was previously seen in the Pacific Northwest over the spotted owl. What's it worth? Who should pay? Is it necessary?

And there's a wrinkle to saving these particular whales. Hundreds of thousands of belugas roam the Arctic, including four other healthy beluga populations near Alaska. The Cook Inlet group may legally qualify for protection as a unique group that never mingles or mates with other whales. But such ecological nuances have never convinced industrial groups,

bridge builders and chambers of commerce.

A story in the Anchorage Daily News by Don Hunter offers a glimpse of what's to come. Two environmentalists praised the proposal as common sense and the right thing to do.

Captive Beluga looks around
Robyn Angliss / NMML

“The government’s decision allows Cook Inlet beluga recovery to be governed by science, where it belongs,” said Randy Virgin, executive director of the Alaska Center for the Environment.

“Applying the tools of the ESA to beluga recovery is the best hope for this highly imperiled whale,” added Brendan Cummings, with the Center for Biological Diversity.

Not so, said Henry Springer, executive director of the Knik Arm bridge project. Existing law already protects the whales enough. And how the agencies identify and protect beluga habitat could raise the cost or change the construction of the bridge.

“I don’t think the resource agencies have an inkling of an idea how to address the habitat question,” Springer told Hunter.