Daily Herald

SUNDAY
October 7, 2007

Walruses on Alaska shore alarms scientists, conservationists

By Dan Joling
THE ASSOCIATED PRESS

ANCHORAGE, Alaska -- Scientists and conservationists are expressing alarm at the appearance of thousands of walruses on Alaska's northwest coast, a dramatic demonstration of the effects of diminished Arctic sea ice brought on by global warming.

Alaska's walruses, especially breeding females, in summer and fall are usually found on the Arctic ice pack. But the lowest summer ice cap on record put sea ice far north of the outer continental shelf, the shallow, biomass-rich shelf of ocean bottom in the Bering and Chukchi seas.

Walruses feed on clams, snails and other bottom creatures. Given the choice between an ice platform over water beyond their 630-foot diving range, or haulouts on shore, thousands of walruses picked Alaska's rocky beaches.

"It looks to me like animals are shifting their distribution to find prey," said Tim Ragen, executive director of the federal Marine Mammal Commission. "The big question is whether they will be able to find sufficient prey in areas where they are looking."

According to the National Snow and Ice Data Center at the University of Colorado at Boulder, September sea ice was a whopping 39 percent below the long-term average from 1979 to 2000. Senior scientist Mark Serreze said in response that sea ice cover is in a downward spiral and may have passed the point of no return, with a possible ice-free Arctic Ocean by summer 2030.

Starting in July, several thousand walruses abandoned the ice pack for haulouts between Barrow and Cape Lisburne, a remote stretch of Alaska coastline covering some 300 air miles.

The immediate concern of new, massive walrus groups for the U.S. Fish and Wildlife Service is danger to the animals from stampedes. Panic caused by a low-flying airplane, a boat or an approaching polar bear can send a herd rushing to the sea. Young animals can be crushed by adults weighing 2,000 pounds or more.

Longer term, biologists fear walruses will suffer nutritional stress if they are concentrated on shoreline rather than spread over thousands of miles of sea ice.

Walruses need either ice or land to rest. Unlike seals, walruses cannot swim indefinitely and must pause after foraging.

Historically, Ragen said, walruses have used the edge of the ice pack like a conveyor belt. As the ice edge melts and moves north in spring and summer, sea ice gives calves a platform to rest while females dive to feed. There's no conveyor belt for walruses on shore.

"If they've got to travel farther, it's going to cost more energy. That's less energy that's available for other functions," Ragen said.

Young animals weaning and learning to fend for themselves are most vulnerable, Ragen said, if they must swim with their mothers to forage. They don't have an adult's buffer of stored fat, which acts as an energy reserve and a thermal regulator in the cold sea water. Like small children, they lose heat faster because of a larger surface-to-volume ratio.

"They're small. Their energy needs per kilogram are greater. Their ability to sustain themselves in those environments -- it's more difficult," Ragen said.

Nutritional stress likely would next affect reproductive females. Fetuses might not fully develop. Calves might suffer low birth weight. Reproduction is a tremendous energy drain for females, Ragen said.

Eventually, healthy adults could be affected by nutritional stress, he said.

Deborah Williams, a former Interior Department special assistant for Alaska under President Bill Clinton,

and now president of Alaska Conservation Solutions, a nonprofit devoted to finding solutions for global warming in Alaska, said melting of sea ice and its effects on wildlife were never even discussed during her federal service from 1995 to 2000.

"That's what so breathtaking about this," she said. "This has all happened faster than anyone could have predicted. That's why it's so urgent action must be taken."

Walrus observers on the Russian side of the Chukchi Sea have also reported more walruses at haulouts and alerted Alaska wildlife officials to the problems with the animals being spooked and stampeded.

If lack of sea ice is at the heart of upcoming problems for walrus, Ragen said, there's no solution likely available other than prevention.

"The primary problem of maintaining ice habitat, that's something way, way, way beyond us," he said of the community of scientists, wildlife managers and conservation interests.

"To reverse things will require an effort on virtually everyone's part," he said.

Kassie Siegel, the attorney for the Center for Biological Diversity who wrote the original petition seeking Endangered Species Act protections for polar bears because of global warming and loss of sea ice, was more emphatic.

Her group has turned to formal petitions and the courts because national policy makers have not acted, she said.

"We're trying every way we can to get some action there. There are solutions. We need to adopt them and we need to force the administration to do so. We need to force Congress to act. The people who are blocking progress need to step aside," she said.