

## Is cannibalism in polar bears on the rise?

December 9 2011, by Lin Edwards



(PhysOrg.com) -- A series of photographs of cannibalism in polar bears have been released, and the researchers who witnessed the act think the rate of cannibalism may be increasing. They observed three instances of adult male polar bears killing and eating young cubs during summer and autumn in the Svalbard archipelago in Norway and made a series of photographs of one episode.

At the <u>American Geophysical Union</u> (AGU) Fall Meeting, Jenny Ross, an environmental photojournalist, presented a series of photographs of an adult male polar bear (Ursus maritimus) carrying the carcass of a young cub. Ross said the bear's behavior suggested it considered the cub to be food, and it carried the corpse in its jaws to another floe to get away from the researchers. When it was some distance away it then devoured the cub.



Dr Ian Stirling of Environment Canada, who co-wrote the paper published in the journal *Arctic*, said <u>cannibalism</u> among <u>polar bears</u> has been witnessed before, but he said the rate of cannibalism may be increasing as the <u>sea ice</u> now melts earlier in the year. The primary <u>food</u> <u>source</u> for polar bears is seals, which they normally hunt from ice floes. The ice floes melt during summer and in some places the ice disappears altogether, making hunting for <u>seals</u> more difficult. Ross said the bears are forced to seek out other foods such as <u>sea birds</u> and their eggs, and human foods and waste, but these are not enough to sustain them.

Ross said cannibalism has always occurred "to some extent" and bear cubs were probably easy prey, particularly for a large male bear. She said the cannibalistic behavior may rise as hunting becomes more difficult with the climate continuing to warm in the Arctic. She also said there were increasing numbers of observations of cannibalism, especially on land among bears that had no food for extended periods.

The observation of cannibalism in polar bears is not new. A <u>1985 paper</u> in *Arctic* listed incidents of cannibalism dating back to 1896, while a <u>1999 paper</u> by Derocher and Wiig in *Arctic* concluded that cannibalism in polar bears "may be more common in Svalbard… because the population is close to carrying capacity or because geographic features reduce patial segregation of age and sex classes." Hunting of polar bears in the Svalbard-Barents sea area ceased in 1956 in Russia and 1973 in Norway, which Derocher and Wiig said allowed the population to increase and reach carrying capacity.

Cannibalism has also been observed among captive polar bear populations in zoos, such as an incident in 2008 in Nuremburg zoo, in which a mother bear killed and ate her two cubs, despite being well fed. According to the president of the Kivalliq Inuit Association, Jose Kusugak, the behavior is "quite normal."



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