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National Wildlife Research Centre
Carleton University
1125 Colonel By Drive (Raven Road)
Ottawa, ON K1A 0H3

NWB Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0

March 24, 2014

Dear Manager:

Please find attached an application for water use without a license, as well as project descriptions in both English and Inuktitut for research conducted on East Bay Island, Nunavut. This work was previously covered under Nunavut Water Board License 3BC-EAS1214 TYPE "B". However this license will expire on May 31, 2014 and we would like to apply for permission to use water without a license beginning June 1, 2014.

Please note the approval can be made out to Dr. Grant Gilchrist, however, because Dr. Gilchrist will be away from email until the end of June, any questions you have regarding this application can be directed to myself, Michael Janssen, Michael.Janssen@ec.gc.ca 613-991-9973.

Thank you very much for your consideration of this application, and please do not hesitate to contact us with any questions or concerns you may have.

Sincerely,

Michael Janssen
Wildlife Technician
Environment Canada

Population dynamics, parasites and contaminant studies of marine birds breeding at East Bay Island, Nunavut

Project Description

Studies of the Breeding Ecology of Common Eiders and King Eiders

East Bay Island is the largest known colony of common eiders in the Eastern Arctic. Our studies at East Bay were initiated in 1996 in response to concerns that northern common eider ducks were being overharvested on their wintering grounds in west Greenland. We collaborated with Danish researchers, and the recommendations of our study resulted in new regulations in 2002 limiting the harvest quotas in Greenland. Following the implementation of the new regulations, the population at East Bay started to rebound with increased female survival rates and an increase in the overall colony size. In 2005 avian cholera was detected at the colony, and has been present every year since then. This virulent disease is often fatal, and resulted in a 44% decline in the number of nesting females over a 3-year period (2006-2008). Since 2009 the number of females dying from avian cholera has steadily declined. Polar bear predation of nests on eider colonies is an emerging concern throughout Hudson Strait and we have documented rapid increases in bear activity on multiple colonies and subsequent complete reproductive failure of eiders in some years. Our work suggests that bear prevalence on seabird colonies may be related to ice conditions over the previous winter. In future years the work at East Bay Island will continue to investigate the impacts of increasing polar bear predation, industrial development, emerging disease and harvest on northern eiders and other seabirds.

Camp

The island camp consists of 2 Inuit guides plus 3-9 others, housed in 2 sleeping cabins and 3 canvas tents for storage and kitchen facilities. There is also a lab cabin on the island to house a freezer and scientific equipment. The camp is only in use from late May to early August each year. In May and June, a snowmachine and Komatik are used to move around on the nearby sea ice, and transport in and out of the camp is provided by chartered helicopter or Twin Otter plane.

Water is used for drinking and washing purposes only and is obtained by melting sea ice in blue barrels. Once melted, the water is stored in the barrels until it is used by camp members. Human waste is disposed of using a composting toilet. All other waste is flown to Iqaluit and disposed of properly.