

October 19, 2020

Ms. Shirley Tagalik  
Aqqiumavvik Society  
Box 444  
Arviat, NU, X0C 0E0  
inukpaujaq@gmail.com



Dear Ms. Tagalik,

On behalf of Environment and Climate Change Canada- Canadian Wildlife Service (ECCC-CWS), please accept this letter in support of the Aqqiumavvik Society's proposal to initiate a community-led research and monitoring program on the effects of climate change on Arctic nesting geese in Arviat, Nunavut.

Geese and their eggs have traditionally been, and continue to be an important food source for Arviarmiut, and their observations and research contributions have been important in describing long-term changes in abundance and the effects of over-abundant populations on surrounding habitat. Arctic ecosystems are particularly sensitive to the effects of global climate change, and geese represent an important study species because they are sensitive to phenological changes driven by climate change, have a strong influence on many aspects of the ecosystem, and are culturally important. ECCC-CWS has a long history of collaborating with Arviarmiut on goose research and monitoring beginning as early as the 1970s and extending through until recently. The proposed research will contribute significantly to the ECCC-CWS mandate of conserving and protecting migratory birds, engaging Indigenous Peoples in conservation and stewardship activities, and collaborating with partners to advance the conservation of biodiversity and sustainable development.

We are excited at the prospect of a renewed partnership, which will contribute important information on areas of mutual interest, which may include: 1) contemporary estimates of abundance and distribution of lesser snow and Ross's geese in the Kuugaayuk (McConnell River) Migratory Bird Sanctuary, 2) improved banding sample sizes of geese in the eastern arctic, for monitoring harvest and survival rates, 3) assessment of changes in pre-breeding nutritional state during spring migration, and 4) assessing relationship between egg size and genomics to evaluate hybridization in Canada and Cackling geese. We propose to accomplish these objectives through a variety of training workshops and field programs, which will have the dual benefit of providing high-quality data collected mainly by Arviarmiut, with relatively low field expenses and a very low carbon footprint. In addition, this project will provide important local training opportunities, employment, and will build capacity to support future environmental monitoring or research in other disciplines. Building capacity for community-led research and monitoring is especially important during times of restricted travel, which has prevented many southern-led programs from operating, including most ECCC-led initiatives in the arctic.

Through this partnership, Canadian Wildlife Service (CWS) will provide in-kind support, training, and expertise on several aspects of the project. Specifically, CWS will 1) provide remote training workshops on goose banding, 2) assist with a variety of permitting requirements, 3) provide laboratory assistance and expertise, 4) provide all required field equipment for banding, and cover the costs of ATV rental and fuel to facilitate approx. 8 days of goose banding per year. Throughout the duration of five-years of funding requested (2021-2026), ECCC-CWS will contribute approximately 20 weeks of staff time (around \$40,000). ECCC-CWS will also support field costs associated with banding each year (up to \$20,000 per year), as well as laboratory costs related to genetic analysis (around \$3000). Support from ECCC-CWS over the duration of the proposed study will total approximately \$143,000.



In closing, we are grateful for the opportunity to be involved in this novel approach to population monitoring and research, and are confident this initiative will serve as a model for accomplishing similar conservation objectives elsewhere in Nunavut.

Sincerely,

Jim Leafloor  
Head- Aquatic Unit  
Prairie Region  
Canadian Wildlife Service  
Environment and Climate Change Canada