



YUKON TINTINA TRENCH MIGRATORY FLYWAY PROJECT – SPRING HABITAT FOR WATERFOWL

Report to Yukon Fish And Wildlife Enhancement Trust

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PROJECT ACTIVITIES

What activities did you complete during your project?

In 2019 we conducted 4 aerial surveys for water birds and waterfowl at 17 lakes in the Ross River Dena Council (RRDC) Traditional Territory, including at 7 lakes first surveyed in 2018 and 10 new lakes (Figure 1). Waterfowl surveys were conducted by helicopter by 2 observers counting all individuals within the defined survey area. Counts are made for each taxonomic group: swans, geese, ducks, loons, and grebes. Individuals were identified to species when possible and lists of species observed were compiled for each lake from across the 4 surveys in a given year. Surveys were conducted 10 days apart between April 15th and May 15th, 2019. The total count of swans, geese, ducks, grebes, and loons across all lakes and all surveys was 4,438 (Table 1) across 23 species (Table 2). High counts included 2 lakes with approximately 500 individuals each over 4 surveys and 2 lakes with around 1,000 individuals. In addition to aerial surveys, remote cameras were used to monitor daily ice conditions and hourly occupancy by waterbirds and waterfowl at 11 lakes. Cameras were deployed during the 1st survey. Those at remote lakes were retrieved during the 4th survey. Lakes accessible by road remained deployed until summer to capture a longer period.

How did your activities contribute to your goals and objectives?

The overall goal of this project is to identify and protect critical habitat for migratory waterfowl in Yukon. Our objectives are 1) to identify lakes that are of high-value as stopover sites for waterfowl during their spring migration through southeast Yukon and 2) secure an update of Yukon Environment's Wildlife Key Areas (WKA) database based on the results of our study.

We successfully completed our objectives for 2019, specifically surveying 7 lakes for a 2nd year and 10 new lakes, plus monitoring ice condition and completing data entry and summary. The 2019 field season was the 4th year of this study and thus contributed to our large database of waterfowl surveys during spring migration across southeast Yukon. After completion of data collection in 2019, our database includes 10 lakes surveyed in 1 year, 21 in 2 years, and 14 in 3 years.

We will collect 1 more year of data on this project. Following the 2020 field season we will analyse survey data to identify the lakes of highest value as stopover sites for waterbirds and waterfowl based on consistent use within a spring migration period and across 2 or 3 years. The results will then be made available to Yukon Environment for the purpose of updating the Wildlife Key Areas (WKA) database.

Note any variances to your goals, objectives or work plan and explain why they occurred?

There were no significant variances to our goals, objectives, or work plan. There were minor modifications to the lakes included in the study. This is common as each year of this study we select in advance potential study lakes, but after the 1st survey we may drop and/or add lakes based on suitability for the study and logistics (e.g. flight path and cost).

Explain how the results of your work contributed to the protection, enhancement or restoration of fish, wildlife or their habitat?

The WKA database provides information to government, industry, and other stakeholders for consideration in habitat management, resource and land use planning, and environmental assessment reviews. However, many lakes in the WKA database have not been well studied, and the basis for their notation derives from one or few surveys, often during a single season (i.e. during spring or fall migration or the breeding period), or expert opinion and anecdotal information. In addition, the WKA database is incomplete because there are notable spatial gaps: many parts of the Yukon have not had systematic and comprehensive assessments, including the Kaska Territories in southeast Yukon. Following completion of the final field season and data analysis, the results of this project will fill a significant gap in the WKA database and ensure lakes of high value to waterbirds and waterfowl during spring migration are protected from development or activities that would disrupt or diminish their value.

If you were to do the project again what would you do differently?

The 2019 field season was the 4th year of a multi-year study. Therefore, our project methods are well established and did not change from previous years.

COMMUNICATIONS

What did you do to ensure your results were shared with the appropriate groups, people or governments?

The following communications and outreach activities were conducted in 2019:

- Prepared 2019 Project Activities Report, 'Identifying important sites & habitats for birds migrating through Yukon's Tintina Trench' for Ross River Dena Council.
- Presentation of 'The Migratory Spectacle of Yukon's Tintina Trench: A Study of Spring Migration of Waterfowl and Sandhill Cranes' at Yukon Biodiversity Forum in March 2019.
- Notes and images from the field were shared to WCS Canada social media followers (approximately 5,000) during the 2019 spring field season.
- Information and/or images related to this project were provided to Liard First Nation and Ross River Dena Council for use in 2019 Nature Fund Indigenous Protected and Conserved Areas proposals and in various communications (presentations, newsletter).

Note how you recognized the Enhancement Trust and/or its mandate?

- The Yukon Fish & Wildlife Enhancement Trust was acknowledged in the 2019 Report of Project Activities, 2019 funding reports to The W. Garfield Weston Foundation and the Wilburforce Foundation, and will be recognized in the WCS Canada annual report (pending) and any future presentations or reports.

Identify any communication materials, strategies or techniques that you used to promote your project and its objectives?

- Since 2016, this project has been featured annually as ‘Notes from the field’, with images, to WCS Canada social media followers.
- This project has been featured in 2 blogs.
 - o “Birds, birds, and more birds: A migration moment like no other” – Hilary Cooke, May 2018 (<https://www.wcscanada.org/Muddy-Boots/ID/11952/Birds-birds-and-more-birds-A-migration-moment-like-no-other.aspx>)
 - o A northern spring: hope for the birds, and for me” – Hilary Cooke, May 2018 (<https://www.wcscanada.org/Muddy-Boots/ID/11951/A-northern-spring-hope-for-the-birds-and-for-me.aspx>)
- As noted previously, the project was shared with the public at the Yukon Biodiversity Forum in March 2018.

Include photos of the project in action or the finished product?

See Photos at end of report.

Figure 1. 2019 study sites for the Tintina Trench Migratory Bird Project – includes 17 lakes surveyed for spring use by waterfowl and 7 lakes monitored for stopover by sandhill cranes (4 lakes monitored for both). Note, several study lakes are unnamed on topographic maps so were given names (in quotations) for reference in field activities.

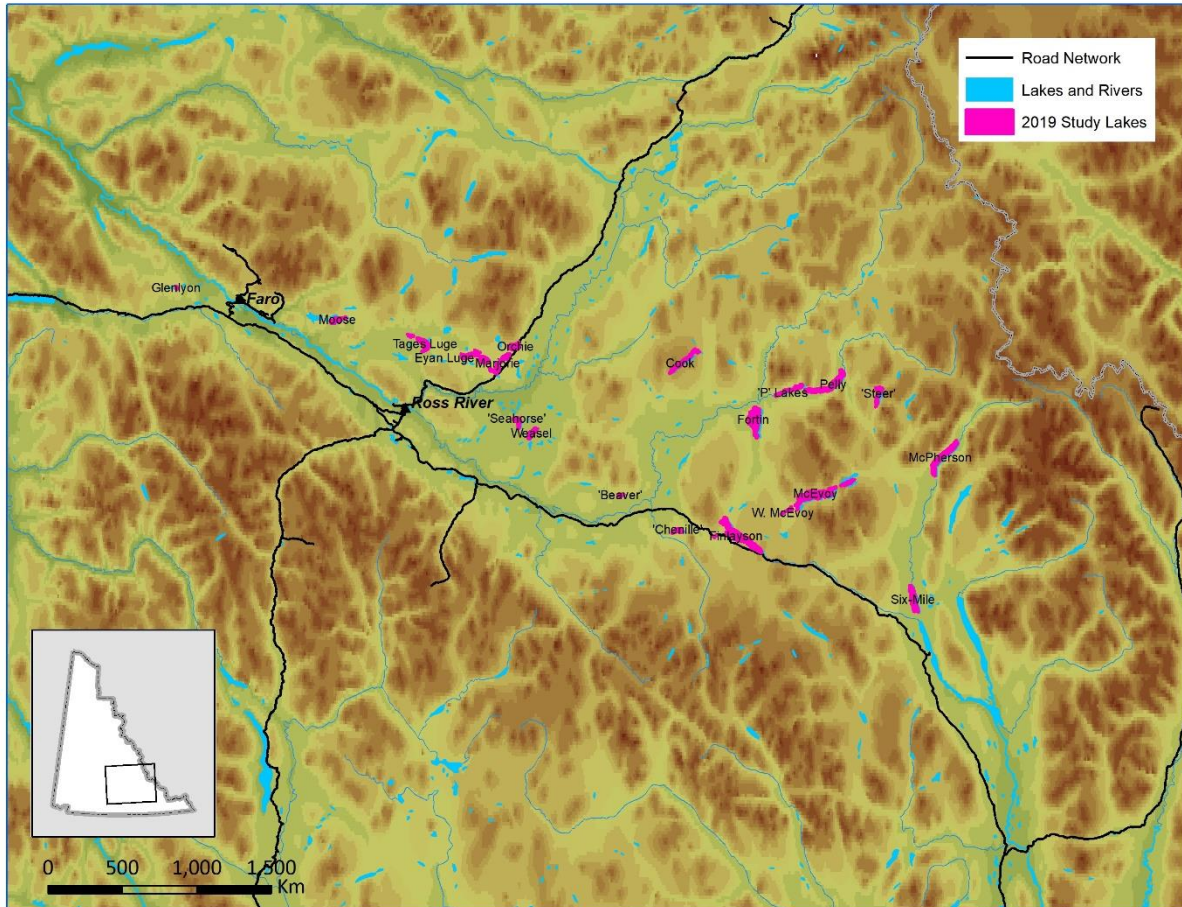


Table 1. Waterbird and waterfowl counts by lake across 4 surveys in spring 2019. See Figure 1 for map and information on study lake names.

Lake	All Species	Swan	Geese	Ducks	Waterbird	Gulls
Cook	114	6	2	104	1	1
Eyan Luge	-	-	-	-	-	-
Finlayson	56	-	-	56	-	-
Fortin	1,186	54	397	686	2	47
'Chenille'	9	-	-	5	2	2
'Seahorse'	329	-	2	220	1	106
'Steer'	41	4	-	35	-	2
Marjorie	15	-	-	14	-	1
McEvoy	-	-	-	-	-	-
W. McEvoy	986	34	31	842	9	70
McPherson	184	18	48	116	-	2
Orchie	-	-	-	-	-	-
'P' Lakes	135	7	10	102	-	16
Pelly	514	48	44	418	4	-
Six Mile	328	8	24	284	4	8
Tages Luge	427	38	4	348	4	33
Weasel	114	-	-	110	3	1
ALL	4,438	217	562	3,340	30	289

Table 2. Waterbirds and waterfowl species observed on aerial surveys in April & May 2019.

Species	Scientific Name
Bonaparte's Gull	<i>Chroicocephalus philadelphia</i>
Common Loon	<i>Gavia immer</i>
Herring Gull	<i>Larus argentatus</i>
Mew Gull	<i>Larus canus</i>
Red-necked Grebe	<i>Podiceps grisegena</i>
American Wigeon	<i>Mareca americana</i>
Barrow's Goldeneye	<i>Bucephala islandica</i>
Bufflehead	<i>Bucephala albeola</i>
Canada Goose	<i>Branta canadensis</i>
Canvasback	<i>Aythya valisineria</i>
Common Goldeneye	<i>Bucephala clangula</i>
Common Merganser	<i>Mergus merganser</i>
Greater White-fronted Goose	<i>Anser albifrons</i>
Green-winged Teal	<i>Anas crecca</i>
Mallard	<i>Anas platyrhynchos</i>
Northern Pintail	<i>Anas acuta</i>
Northern Shoveler	<i>Spatula clypeata</i>
Red-breasted Merganser	<i>Mergus serrator</i>
Ring-necked Duck	<i>Aythya collaris</i>
Scaup sp.	<i>Aythya marila/affinis</i>
Surf Scoter	<i>Melanitta perspicillata</i>
Trumpeter Swan	<i>Cygnus buccinator</i>
White-winged Scoter	<i>Melanitta fusca</i>

Photo 1. Swans, geese, and ducks on Fortin Lake, April 24, 2019. Total survey count was 48 swans, 48 geese, and 152 ducks. Photo credit: Hilary Cooke/WCS Canada



Photo 2. Open water on Fortin Lake, May 14, 2019. Total survey count was 83 geese, 348 ducks, and 2 grebes. Photo credit: Hilary Cooke/WCS Canada

