

# Lower Mackenzie Waterbird Inventory Project

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## Ducks Unlimited Canada's Western Boreal Forest Program

### INTRODUCTION

The boreal forest is a vital part of the NWT's economy, history, culture and natural environment. It also provides critical summer breeding, molting and staging habitat for many species of waterbirds. The natural processes of the boreal forest are poorly understood, yet it is experiencing a marked increase in human development, especially within the Mackenzie River Valley. With land claims settled or in progress, the Dene, Inuit and Metis are better positioned to supervise operations on their land and assure a more sustainable future.

Ducks Unlimited Canada and its partners started this three year project to document waterbird use of the Lower Mackenzie Region. Vegetation classification and water chemistry data, combined with waterbird inventories, will be used to help us determine where important waterbird areas are within the study area. This poster concentrates on the results from the second year of waterbird surveys in the area.



Mackenzie Delta (Photo by Keith Patton)



Mackenzie River (Photo by Keith Patton)

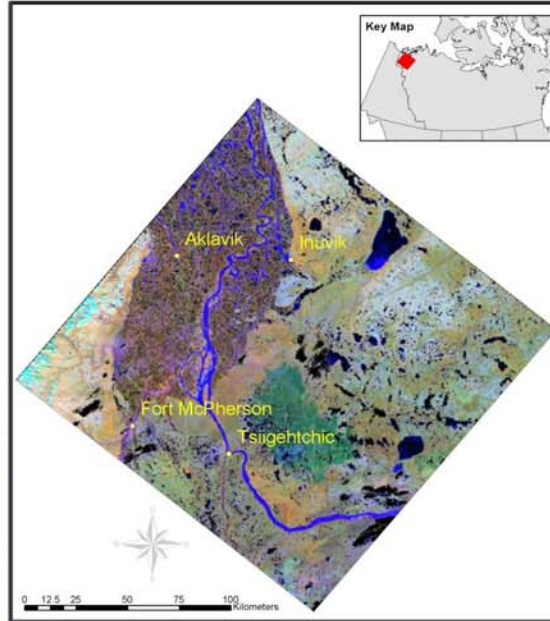


Figure 1 : Lower Mackenzie River Delta Project Area



Swans (Photo by Hal Kobay)



Pacific Loon (Photo by Grasses)

Pacific Loons breed throughout much of the boreal forest and tundra regions of North America. Although it is a species of interest, the status of the Pacific Loon population is unclear. Most population surveys have been conducted in Alaska, very few studies have investigated trends in Canada, where most of its breeding range lies.

There were an estimated 12,862 Pacific Loons in the wetland basin portion of the project area during breeding surveys this year representing over 94% of all loons present. On the delta there were an estimated 2,856 Pacific loons. The two other loons observed in the project area were Common and Red-Throated Loons.

### RESULTS

#### Wetland Basin Surveys

Two helicopter breeding pair surveys were flown (June 6-8 & June 22-24) over approximately 118 basins (Figure 1). We estimated a total of 64,135 duck breeding pairs of 14 different duck species being in the study area.

Two fixed-wing staging surveys (August 20-25 & September 10-15) were flown over approximately 141 basins (Figure 1). We estimated a total of 254,727 and 149,749 ducks respectively on the project area (Figure 1).

#### Mackenzie Delta Surveys

Two fixed wing breeding surveys were flown over the project portion of the delta (same dates as above). We estimated a total of 29,249 breeding pairs of ducks were on the delta during these surveys (Figure 1).

Two fixed wing staging surveys were flown over the project portion of the delta (same dates as above). We estimated the total number of ducks on the delta during staging I and II surveys were 150,795 and 237,764 respectively (Figure 1).

	<b>Scaup</b> (Qaqtuatuk/Nitsihdyin/ Nitsihdin) 27,100 breeding pairs in project area
	<b>American Wigeon</b> (Igiubiq) 8,341 breeding pairs in project area
	<b>Mallard</b> (Kurugaapak/Dehdrik/ /Neet'aii) 7,082 breeding pairs in project area
	<b>White-winged Scoter</b> (Njaa) 4,901 breeding pairs in project area

Top 4 breeding ducks in the project area (Wetland Basin Surveys Only)



### SUMMARY

- Scaup was the most frequently observed duck species and also had the most breeding pairs present.
- Wigeon was the most abundant dabbling duck species in breeding pairs.
- Black ducks (White-winged scoter), a species of concern, had the 4<sup>th</sup> highest estimated breeding pair numbers of all ducks.
- Cardinal Lake and other large basins within the same area contained high numbers of staging ducks.

