

Sahtu Waterbird Inventory Project – 2001 Survey Results

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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 initiated a 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 develop a predictive model of habitat selection by waterbirds. This poster concentrates on the results from the second year of waterbird surveys in the area.



Photo by Bruce MacDonald

Figure 1: Sahtu Study Area (showing surveyed basins)

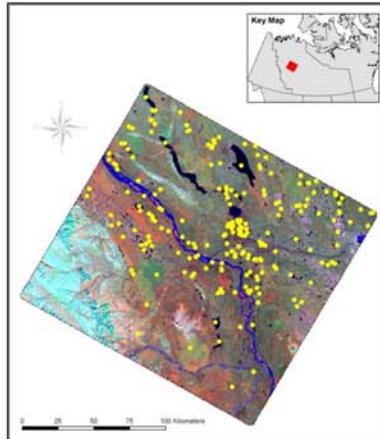


Table 1: Comparison of Sahtu Breeding Pair Results between 2000 and 2001

SPECIES	2000	2001
Green-winged Teal*(chutsele)	61	16
Wigeon*(whistling duck)	94	47
Barrow's Goldeneye	1	0
Bufflehead	36	24
Blue-winged Teal*	7	3
Canvasback	1	10
Common Goldeneye	8	18
Common Merganser*(kwole)	0	1
Long-tailed Duck (ajléa)	2	0
Mallard (chuho)	329	116
Northern Pintail (ajléa)	50	31
Northern Shoveler*(dachare/dayéchare)	39	14
Ring-Necked duck*	29	25
Scaup*(dajlgare)	60	128
Surf Scoter	43	84
White-winged Scoter (tenakeo)	0	1
Total	760	518

* Incomplete data set



Photo by Dave Havelka

Pacific Loons breed throughout much of the boreal forest and tundra regions of North America. Although it is a federally protected species, 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.

Pacific Loon abundance peaked in the Sahtu study area during the Brood I survey. During this survey 112 individuals were observed compared to last year's peak abundance of 64 Pacific Loons. A total of 15 different Pacific loon broods were recorded during the brood surveys, of which 6 (40%) were located in the Willow Lake complex. Pacific Loons were observed on 90 (45%) basins surveyed during the 2001 waterbird inventory of the Sahtu region.

RESULTS

Two helicopter breeding pair surveys (May 22-25 & June 12-14) and two brood surveys (July 9-13 & August 5-8) were carried out in the Sahtu region over 148 basins (Figure 1). A total of 516.5 breeding pairs of 14 different species were recorded, down from 759.5 breeding pairs in 2000 (Table 1). An increase in broods was noted, as 133 broods of 9 different species were observed versus 68 broods in 2000 (Table 2).

Two fixed-wing staging surveys (August 25-27 & September 24-26) were flown over 154 basins (Figure 1). A total of 9341 and 8252 ducks respectively were recorded during both surveys, (Figure 2). Again, 2500 Tundra Swans were recorded on Willow Lake during the late September survey.

Duck density for Willow Lake during the Brood II and Staging I transect surveys was estimated to be 67 ducks/km² and 169 ducks/km² respectively.

Table 2: Comparison of Sahtu Brood Survey Results between 2000 and 2001

Species	2000	2001
Green-winged Teal	5	6
Wigeon	18	16
Bufflehead	5	6
Blue-winged Teal	1	0
Mallard	9	18
Northern Pintail	0	4
Northern Shoveler	1	6
Ring-necked duck/Scaup	2	5
Ring-necked duck	3	20
Scaup	17	45
Surf Scoter	7	7
Total	68	133



Photo by Hal Kober

Figure 2: Comparison of Sahtu Staging Survey Results between 2000 and 2001

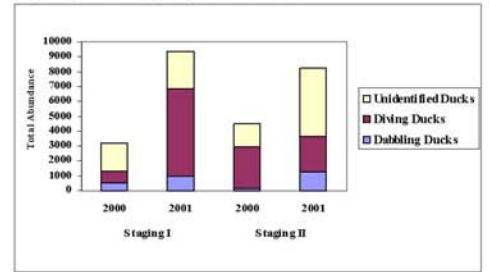


Photo by Bruce MacDonald

SUMMARY

♣ Scaup was the most frequently observed duck species and also had the most breeding pairs present.

♣ Mallard was the most abundant dabbling duck species both in numbers and in breeding pairs.

♣ Almost 60% of all observed broods were of diving ducks, mainly Scaup and Ring-necked duck.

♣ Surf Scoter, a species of concern, had few broods relative to the number of breeding pairs observed.

♣ Willow lake and other large basins within its complex contained high numbers of staging ducks.



Photo by Bruce MacDonald