

**A SUMMARY OF THE PRELIMINARY RESULTS FROM THE
2003 WATERBIRD INVENTORY PROGRAM IN
FORT NELSON, BRITISH COLUMBIA**



by

**DUCKS UNLIMITED CANADA
WESTERN BOREAL PROGRAM**

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Ducks Unlimited Canada
CANADA'S CONSERVATION COMPANY



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UNIVERSITY OF ALBERTA
1907



North American Waterfowl
Management Plan
Plan nord-américain de
gestion de la sauvagine
Plan de Manejo de Aves
Acuáticas de Norteamérica



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BACKGROUND

The western boreal forest (WBF) covers over 3 million square kilometers of western Canada, stretching over portions of five provinces and three territories (Figure 1). The WBF has been recognized as one of the most important waterfowl habitat areas in North America (Ducks Unlimited 2001); therefore, Ducks Unlimited Canada (DUC) implemented the Western Boreal Program (WBP) in 1997 to identify critical wetland systems, and to develop sustainable-use practices and conservation strategies for areas throughout this vast region.



Figure 1. Ecoregions of Canada's western boreal forest.

In 2001, DUC initiated the Fort Nelson, British Columbia Project to help determine the importance of this portion of the western boreal forest to waterbirds. This 32,000-km² area is located in the southern portion of the Taiga Plains ecoregion

(Ecological Stratification Working Group 1996) in northeastern British Columbia. During 2001, we obtained earth cover and water chemistry information, which provided information about habitat types and wetland productivity, respectively. In 2003, we conducted aerial waterbird inventories to gain information about what species and how many were using this area. This document focuses on a summary of the preliminary results from the 2003 waterbird inventory program. A more comprehensive report will be available in the spring of 2004, and results from the earthcover and water chemistry work are provided elsewhere (Bell et al. 2002, Ducks Unlimited Inc. 2003).

FIELD METHODS

We conducted two breeding pair surveys (May 19-21 and June 9-11) and two brood surveys (July 8-10 and July 29-31) for early and late nesting waterfowl species on randomly selected wetlands using a Bell 206 Jet Ranger helicopter. We recorded species, gender and social status (e.g., lone male, pair, groups) for all waterbirds seen during breeding pair surveys, and species, duckling age, brood size and presence of a female during brood surveys.

We conducted three fall staging surveys (August 26-28, September 17-19, and September 30- October 2), using a Cessna 185, to evaluate relative waterbird abundance during migration. We recorded species and sex of waterbirds, and number of waterbirds seen. Refer to Ducks Unlimited Canada (2002) for a detailed description of aerial survey methods.

RESULTS

We observed 743 indicated breeding pairs (IBP) of ducks on 154 randomly selected wetlands. Indicated breeding pairs were recorded for 14 waterfowl species. Bufflehead (n = 219), mallard (n = 160), and scaup spp. (n = 93) were the 3 most abundant species observed. We observed 332 duck broods during brood surveys. Broods were recorded for 11 waterfowl species with mallard broods (n = 84) being the most abundant followed by bufflehead (n = 80), ring-necked duck (n = 56), and green-

winged teal (n = 26). Collectively, these species accounted for 69% of all broods observed.

A variety of ducks, geese, swans, shorebirds, loons, grebes, gulls, and cranes used the area during fall migration. The number of waterbirds observed (about 15,000) was the highest during the first staging survey. During our second and third staging surveys, the observed number of waterbirds using this area dropped to about 11,700 and 12,000 individuals, respectively. Kotcho Lake was identified as an important staging area since > 13,000 waterbirds were seen here.

FUTURE PLANS

We believe that breeding pair and brood surveys were conducted during the optimal census periods to accurately reflect the relative abundance of pairs and broods. However, based on the timing of migration in other areas, staging waterbird numbers may have been underestimated because surveys may have been conducted too late. Therefore, in 2004, we will adjust the timing of surveys accordingly.

Breeding pair, and staging waterbird surveys will be conducted in 2004. However, we are currently not planning to conduct brood surveys due to budget constraints, but a final decision will not be made until late February.

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