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# Trumpeter Swans in the Kenora District of Ontario

by

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## Introduction

Efforts to restore Trumpeter Swans to their former range in the mid-west and Great Lakes Region started in 1962 at the Lacreek National Wildlife Refuge in South Dakota. In 1966, Hennepin Parks in Minnesota started their program followed by the state of Missouri and Ontario in 1982. The Departments of Natural Resources in Michigan and Wisconsin began their projects in 1987, Iowa in 1994, and Ohio in 1996.

Pioneering swans from the Lacreek NWR have colonized the Porcupine Forest in Saskatchewan, and Minnesota birds have started to breed in the Kenora area of northwestern Ontario.

Released Trumpeters are usually colour marked so movements can be traced. Minnesota uses orange wing tags with three black digits. Wisconsin uses yellow neck collars. Michigan birds are marked with green wing tags and Ontario stocks carry yellow wing tags. There has been substantial wild reproduction from released birds over the years and many offspring carry no markers. Marked Minnesota and Michigan swans have been recorded in southern Ontario and unmarked Trumpeters have also been recorded by reliable observers.

## Trumpeter Swans in the Kenora area of Ontario

David Schneider, a local baitfisherman, found swans nesting in the English River system in four consecutive years. In 1993, he brought these sightings with confirming photographs to the attention of Bruce Ranta and Lil Anderson of the Ontario Ministry of Natural Resources

staff in Kenora. He had seen a single pair of swans with cygnets each year from 1989 to 1992. During this period they had used two different lakes.

In 1993, Lil Anderson and Bruce Ranta visited the small lake where the swans were seen nesting in 1992. The nest site was found, scattered with eggshell debris, but there was no sign of the swans. The nest, located in a small lake influenced by the English River system, had its edges flooded during abnormally high water levels the previous fall. It seemed in good repair and it was not clear whether the nest had been used in 1993, or if it had just survived the flood waters well the year before.

Although the area was flown by helicopter extensively that year, there was no sign of the swans. There was, however, a report in June of a pair of swans with 4 mallard-sized cygnets on a creek 30 km west of Kenora. Bruce Ranta and Mike Dawe were able to photograph one adult but were unable to locate the other birds. They saw a silver coloured leg band on the left leg of the bird but were unable to read the identifying numbers.

In 1994, while on compliance monitoring, Lil Anderson and Joan Sauve found a pair of Trumpeters with 7 cygnets swimming near, and preening on, a well defined nest easily visible from a logging road. This location was some 3.5 km northwest of the 1992 nest site.

It was observed that one adult had an orange patagial tag. Later that year, Lil Anderson was able to determine the number on the tag to be #125. This proved to be a female, hatched in 1988 in the Brookfield Zoo in Chicago. It had been released at Field Lake in Minnesota in 1990 (S. Kittleson, pers. comm.). This indicated that these were indeed a different pair from those nesting in 1989, or at least the female was different.

When these birds were videotaped in October 1994 by the owner of Regional Logging, Doug Anderson, it was apparent she had lost her wing tag. This marked female, according to Steve Kittleson (Minnesota DNR) had been recorded on her wintering grounds at a reservoir on the Ottertail River southeast of Fargo, Minn. In 1991, she was accompanied by four cygnets, in 1992 by five, and in 1993, when she had not been recorded on her breeding area in Ontario, by six. By the fall of 1994, she had lost her wing tag and it is not known if her 7 cygnets survived after they were last seen in October.

In the fall of 1994, shortly after videotaping the swans and cygnets preening on a small beaver pond connected to the nesting lake, Doug Anderson continued up the road to a nearby cutover near the lake where the 1992 nest was found. He reported that he went to investigate a loud trumpeting sound on the little lake and saw 4 or 5 adults and many cygnets, most of which were in the tall grass along the shore. The strong winds of the day made an accurate count impossible, but the loud trumpeting sounds could be heard at a distance despite the winds.

On the same lake that Lil Anderson had reported the 1994 nest and brood of 7 cygnets, Doug Anderson reported in June of 1995 that the swans were back and had 5 cygnets.

### The 1995 Aerial Survey

To determine the breeding status, distribution and habitats occupied by Trumpeters north of Kenora and to

complete the continent-wide inventory of Trumpeter Swans which is carried out every five years, Harry Lumsden, Bruce Ranta and Lil Anderson planned and completed a survey in the Kenora area in July of 1995.

Due to constraints on funds, an aerial survey could not be carried out using Ontario Ministry of Natural Resources Kenora District funds. The Endangered Species Recovery Fund cosponsored by the Canadian Wildlife Service of Environment Canada and World Wild-life Fund (Canada) provided a grant of $800 toward the hire of an aircraft for an aerial survey. The remainder of the cost ($865.58) was paid by Scott Paper Ltd. through the Wye Marsh Wildlife Centre.

A 320 km$^2$ study area was selected on an area with relatively deep soils for the region and containing most of the water bodies on which Trumpeter Swans had been reported in previous years. Flight lines were spaced 1 km apart and flown at 120 m in a Bell "A" star 350 B2 Helicopter at 150 kph on 19 July 1995. The machine was rented from MNR and crewed by Ted Hill (pilot), with Lil Anderson, Bruce Ranta and Harry Lumsden as observers.

A brood of five cygnets was found and photographed, believed to be the brood Doug Anderson had seen in June. The nest from which they had hatched was located on an abandoned beaver house situated on the shore of a small island. The cygnets were well grown and no wing tags were visible on the adult pair.

Six kilometres from the western boundary of the search area, a pair of Trumpeters was seen by Doug Anderson in October. He knew these to be a different pair from those with the five cygnets, as the original pair and brood had been seen feeding on grass in a cutover east of the nesting lake.

There were, therefore, at least 9 Trumpeter Swans in the summer of 1995 in the English River drainage north of Kenora.

## Habitat

### i) soils

The breeding distribution of herbivorous waterfowl such as swans and geese seems to be governed by the availability of calcium (Lumsden 1984). The area in the Kenora District occupied by Trumpeters lies in the bed of glacial Lake Agassiz, a granitic area with lakes in which Ryder (1964) found high calcium carbonate levels.

In the English River drainage system, the nesting Trumpeter Swans are using an area with a relatively deep overburden within which the boundaries of the study area are located.

Soil samples were collected on the north shore of the known 1995 nesting lake. This area had been mapped as a shallow ground moraine over granite bedrock which is terraced, sloping and dry (Neilson 1979).

Table 1 summarizes the analysis of these soil samples carried out by the Department of Land Resource Science, University of Guelph. Although the soils are acidic, sandy and gravelly with a very low agricultural capability (Ministry of Natural Resources 1981), the calcium levels are comparable to those found in agricultural soils in Southern Ontario.

### ii) nest sites

#### a) 1989 nest site

The 1989 nest site was never visited on the ground, but was identified during an

aerial survey. It appeared to be situated on an old beaver house surrounded by water in a small pond directly connected to the English River system. It had retained its shape and integrity as late as 1995.

The waters were quite dark and tannic with floating vegetation visible from the air.

**b) 1992 nest site**

The 1992 nest site was composed of a large mound of silt and rotting vegetation piled up, likely on an old beaver house. This mound was separated from land by a silty mud flat that had been underwater during major flooding that took place on the English River system the previous fall.

The wide creek that connects this small lake with the English River system has dense areas of emergent, submergent and floating vegetation.

The lake itself has small bands of emergent vegetation and grasses, with small areas of submergent vegetation seen along the shore.

**c) 1994 and 1995 nest site**

The nest site used in 1994 and 1995 was on the northwest side of a small island which is separated from land by a narrow channel. It too is a large mound of mud, rotting vegetation and sticks on top of an old beaver house set out slightly from shore.

This is the largest of the three lakes where swans are known to have nested. The first two were approximately 20 and 40 ha respectively, compared to over 200 ha for the latter. They are all relatively shallow and have muddy, silty shores and lake bottoms.

The lake has not been surveyed and depths are unknown but presumed to be relatively shallow. A weed bed is visible from the air in the northwest bay in which the swans were feeding when discovered. Average depth is likely less than 3 meters. Efforts to gain more information on this lake have been curtailed in order not to disturb the nesting birds. The channel between the shore and the island is shallow with an extensive mat of submergent, aquatic

TABLE 1: Nest location soil data.

| Collection Site | pH | P mg/L | N mg/L | Mg mg/L | Ca mg/L |
|---|---|---|---|---|---|
| 1 | 5.4 | 8 | 92 | 191 | 1961 |
| 2 | 5.4 | 8 | 175 | 457 | 2137 |
| 3 | 6.5 | 4 | 217 | 1310 | 4033 |
| 4 | 5.0 | 5 | 93 | 245 | 750 |
| 5 | 5.5 | 3 | 120 | 710 | 2369 |

vegetation. The shorelines have dense sedge growth.

### iii) forests

The forests around the 1989 nest site had been harvested in the 1950s and regenerated in a mixed coniferous/ deciduous forest dominated by Black Spruce and Balsam Fir. These soils are classed as relatively deep and productive (Forest Resource Inventory Site Class 1).

The forest around the 1992 nest site was in the process of being harvested at the time of nest discovery. Much of the original timber consisted of dense, mature to overmature deciduous/conifer mixed woods with Trembling Aspen dominant. Areas recently harvested have been planted with conifer and some natural regeneration has likely started. Herbs and forbs have established themselves throughout the cutover.

The forest around the 1994-1995 nest site is currently being harvested. The original stands were Black Spruce dominant with Balsam Fir and Trembling Aspen. Ridges separating these stands were shallow soiled Jack Pine dominant with Black and White Spruce. The eastern and northeastern sides of the lake tended to be more Aspen dominated with Balsam Fir and Black Spruce and bedrock ridges of pine. Some recently harvested areas are planted with spruce and many are establishing a natural ground cover of herbs, grasses and forbs.

## Predators

A variety of predators which have been recorded preying on Trumpeter Swans, their cygnets or eggs, occur in the area. We have no evidence, however, that the Snapping Turtles (*Chelydra serpentina*), Bald Eagles (*Haliaeetus leucocephalus*), Common Ravens (*Corvus corvax*), Great Horned Owls (*Bubo virginianus*), Timber Wolves (*Canis lupus*), Black Bears (*Ursus americanus*), Lynx (*Lynx canadensis*), Red Foxes (*Vulpes fulva*), Mink (*Mustela vison*) and Otters (*Lutra canadensis*), which all occur in the Kenora area, have preyed upon swans.

There is an Osprey's (*Pandion haliaetus*) nest near one Trumpeter nest-site. This predator has not been recorded as a predator of swans.

## Disturbances to habitat

Most of the timber around the 1992 nest site has been harvested using clearcut logging, with the exception of a reserve of undisturbed vegetation of 30 to 120 m left to protect fish habitat and water quality.

The 1995 nesting lake has a secondary timber resource road within 10 m of the shoreline and in full view of the nest. Depending on the snow cover and frost conditions, this road is often not maintained in April and May due to deep clays and silts which make travel difficult. This may change as access to proposed harvest blocks to the north is required.

Approximately 50% of the surrounding stands, particularly to the north and west of this lake, were to be harvested in the 1995-1996 harvesting season. Once again, with the exception of where the road runs beside the lake, a 30 to 120 m reserve of undisturbed vegetation, with the width depending upon the steepness of the shoreline slope, will be left to protect water quality and fish habitat.

Continued timber harvesting in itself may not be a concern to the nesting birds, particularly when the operations take place during the winter months. Disruption may occur, however, when resource access roads are eventually opened for recreational use. Boat traffic, deposition of lead shot and accidental harassment of birds are potential concerns. The forest management practice of applying herbicides to harvested areas may affect the amount or suitability of forage available for the growing cygnets.

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# Nashville X Tennessee Warbler Hybrids

by

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## Introduction

A wood warbler specimen identified as a hybrid between the Nashville Warbler (*Vermivora ruficapilla*) and the Tennessee Warbler (*V. peregrina*) has been mentioned by Bledsoe (1988, cited by Morse 1989), Williams (1996), and Dick and James (1996), in each instance based on information I supplied. The detailed analysis of this specimen has not been published, however.

Dr. Ross James of the Royal Ontario Museum called my attention to a second specimen tentatively identified as a similar hybrid, and was kind enough to send it to me for analysis. It seems appropriate to discuss both specimens in a single paper, and the Ontario provenience of the second specimen makes this journal an appropriate publication outlet.