

# AN EVALUATION OF TUNDRA SWAN HUNTING IN THE CENTRAL FLYWAY AND CONCERNS ABOUT TRUMPETER SWAN POPULATION RESTORATION

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## ABSTRACT

**Tundra Swan (*Cygnus columbianus*) harvest data are examined for North Dakota, South Dakota, and the Central Flyway portion of Montana. Central Flyway concerns about Trumpeter Swan (*C. buccinator*) population restoration are reviewed.**

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## INTRODUCTION

Federal frameworks governing migratory bird hunting allowed the Central Flyway states of North Dakota, South Dakota, and Montana (Central Flyway portion) the opportunity to hold Tundra Swan (*Cygnus columbianus*) hunting seasons starting in 1983. At that time, the U. S. Fish and Wildlife Service (USFWS) offered North Dakota 1000 permits and 500 each for South Dakota and Montana. Montana selected its first season in 1983, whereas North Dakota and South Dakota held inaugural seasons in 1988 and 1990, respectively.

The number of Tundra Swan hunting permits has varied by state and over time. Montana has had 500 permits allocated annually since 1983 but generally has issued less than half that each year due to the small number of waterfowl hunters in the state. The average number of permits issued annually in Montana for the period 1983-95 was 175. In North Dakota and in South Dakota, hunter interest in the permits is high, and all allocated permits have been issued to hunters every year, up through the 1995 season.

In 1991, the USFWS approved experimental Tundra Swan seasons for North Dakota and South Dakota, which allowed additional Tundra Swan hunting permits for each state. There were 400 permits allocated to North Dakota in 1988, 1000 in 1989 and in 1990, and 2000 each year from 1991 to the present. In South Dakota, 500 permits were allocated during its first season in 1990, 1000 in 1991, and 1500 each year from 1992 to the present. Reports summarizing the experimental seasons (Johnson and Kohn 1995, Vaa 1995) have been submitted to the USFWS by both states, and the seasons are now considered operational.

## METHODS

Post-hunt harvest surveys were used in each state to obtain harvest data, including whether or not a swan was harvested, unretrieved harvest, date and location of kill, number of days hunted, and age of the harvested bird. All hunters who possessed a Tundra Swan permit were queried by a harvest survey questionnaire.

## RESULTS

Response rate by hunters to the questionnaire was approximately 90%. Harvest in Montana, retrieved and unretrieved, during 1983-95 averaged 40 birds per season. In North Dakota, the average annual retrieved and unretrieved harvest during 1988-95 was 705 birds. In South Dakota, the average annual retrieved and unretrieved harvest during 1990-95 was 559 birds. The average annual harvest for the three states combined during the most recent 6-year period (1990-95) was 1414 Tundra Swans (Table 1).

Unretrieved harvest averaged 14.5% in North Dakota and 20.2% in South Dakota during 1990-95. Age ratios in the harvest were 0.13 immatures per adult in North Dakota and 0.17 immatures per adult in South Dakota from 1990-95. Peak harvest periods were mid-October in North Dakota and the last week of October in South Dakota and Montana.

In Montana, the area open to Tundra Swan hunting is the entire Central Flyway portion of the state. The highest harvest occurs in Phillips and Sheridan Counties. In North Dakota, Tundra Swan hunting occurs north and east of the Missouri River. Kidder, Stutsman, and Ramsey Counties have the highest harvest. In South Dakota, the northeastern quarter of the state is open to Tundra Swan hunting, and Day and Marshall Counties have the highest harvest.

Table 1. Tundra Swan harvest summary for North Dakota (ND), South Dakota (SD), and Montana (MT), 1990-95.

		1990	1991	1992	1993	1994	1995	Average
Permits Issued	ND	1000	2000	2000	2000	2000	2000	1833
	SD	500	1000	1500	1500	1500	1500	1250
	MT	173	204	217	212	232	291	221
	Total	1673	3204	3717	3712	3732	3791	3304
Total Kill (Retrieved and Unretrieved)	ND	575	813	979	787	775	900	805
	SD	407	515	955	689	589	198	559
	MT	62	53	37	22	64	60	50
	Total	1044	1381	1971	1498	1428	1158	1414

## DISCUSSION

Tundra Swan hunting is closely tied to wetlands containing beds of sago pondweed (*Potamogeton pectinatus*). A study in North Dakota during the autumn migrations in 1988 and 1989 (Earnst 1994) found that the number of foraging Tundra Swans per wetland was over four times higher on wetlands with sago pondweed than wetlands without it. Hunters commonly position themselves on “passes” between such wetlands in an attempt to bag a swan. Also, a growing number of hunters are using swan decoys in an attempt to take the birds over water.

Tundra Swan hunting has become a popular waterfowling activity in Montana, North Dakota, and South Dakota. For example, during 1994 in South Dakota, hunters from 28 states applied for available permits.

There have been no reported cases of conflict between Tundra Swan hunting and Trumpeter Swan (*C. buccinator*) restoration. The seasons have been well received by the general public and hunters. The Central Flyway states of Montana, North Dakota, and South Dakota look forward to future seasons in compliance with the *Eastern Population Tundra Swan Sport Hunt Plan* (Ad Hoc Tundra Swan Committee 1997).

### Concerns about Trumpeter restoration

The main concern of the Central Flyway to Trumpeter restoration centers on possible conflicts with hunting programs, especially Tundra Swan hunting seasons in North Dakota, South Dakota, and Montana and Snow Goose (*Chen caerulescens*) seasons in mid-latitude and southern states. As Trumpeter populations expand in number and range, it is likely that a small number will be taken during these seasons. The position of the Central Flyway is such incidental take shall not be grounds for any changes in existing hunting programs.

The Flyway believes the long-term probability of success for Trumpeter restoration will not be stymied due to the incidental take of small numbers of Trumpeters. It also believes hunting programs can be maintained while Trumpeter restoration proceeds. Possible conflicts with hunting programs and the management strategies to deal with these concerns are detailed in the management plan for the Interior Population of Trumpeter Swans (Subcommittee on the Interior Population of Trumpeter Swans 1997).

## LITERATURE CITED

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