

# **Waterfowl Shooting Hours Legislative Report**

Minnesota Session Laws 2004 (Chapter 215, Section 32) require the Commissioner of Natural Resources to report by 15 January 2006 to the chairs of the Senate and House committees having jurisdiction over natural resources policy on the impacts of the change in shooting hours on opening day of duck season from 12 noon to 9 AM that took effect in the fall of 2004. This report addresses that requirement by comparing duck harvest estimates on opening day of the 2004 season with opening day of the 2003 season.

## **Background:**

From 1947-2003, shooting hours on opening day of duck season in Minnesota began at 12 noon, except in 1978 when the season opened on a Sunday and shooting hours started at 9 AM. Beginning in 2004, shooting hours began at 9 AM on opening day of the duck season. Since 1973, shooting hours have ended at 4 PM each day during the early portion of the duck season.

Opening date for duck season was Saturday 27 September in 2003 and Saturday 25 September in 2004. Daily bag limits and overall season length were identical each year (6 ducks/day; 60 day season). Species restrictions within the daily bag limit (e.g. no more than 2 wood ducks, 2 hen mallards, etc.) were identical both years. Youth Waterfowl Day occurred 1 week before the regular duck opener both years.

## **Methods:**

To assess the impact of changes in shooting hours, waterfowl harvest data were obtained from the U.S. Fish and Wildlife Service (Service). The Service annually estimates waterfowl harvest in each state using mail questionnaire surveys of selected waterfowl hunters. Hunters are selected using a stratified random design based on answers they provide through the Harvest Information Program (HIP) screening questions at the time of license purchase. Species-specific harvest estimates are obtained from a Parts Collection Survey where selected hunters submit wings from each harvested duck throughout the season. Each part (wing) is weighted by the amount of the total duck harvest it represents. These data were then summarized to provide duck harvest estimates by day, species, and time of day for the 2003 and 2004 duck seasons in Minnesota.

Data on waterfowl stamp sales were obtained from the Minnesota DNR license center and used as a measure of hunter participation on opening weekend each year. State waterfowl stamps are not required for resident hunters under age 18 or age 65 and older or residents who are hunting on their own property.

## **Results:**

In 2003, 94,544 state waterfowl stamps were sold through opening weekend of duck season compared to 91,319 through the same period in 2004.

Species composition and total duck harvest on opening day was similar each year (Table 1) with mallards, blue-winged teal and wood ducks the most abundant in the bag. In

2003, opening day harvest accounted for 15% of the annual harvest; in 2004, opening day harvest accounted for 16% of the annual harvest.

The 5 most harvested species on opening day each year (blue-winged teal, mallard, wood duck, green-winged teal, ring-necked duck) accounted for 91% of the total opening day harvest in both 2003 and 2004 (Table 1).

In 2003, 54% of the total harvest on opening weekend occurred on opening day and 77% of the opening day harvest occurred in the first 3 hours. In 2004, 57% of the total harvest on opening weekend occurred on opening day and 83% of the opening day harvest occurred in the first 3 hours. Total duck harvest by hour on opening day is summarized in Table 2.

Total duck breeding population estimates during 2003-2005 in the surveyed portion of Minnesota were 722,000, 1,008,000, and 632,000, respectively (Minnesota Dept. of Natural Resources, 2005 Breeding Waterfowl Population Survey, unpublished report).

### **Field reports:**

Wetland habitat conditions were much drier across the state on opening weekend in 2003 compared to 2004. Weather conditions on opening day were generally much more favorable for duck hunting in 2003 (temperatures in the 50s, strong winds, overcast) than 2004 (temperatures in the 70s, light winds, clear skies). Many reports indicated that the cold front prior to the opener in 2003 forced many blue-winged teal to migrate out of the state. Most managers reported hunter success on opening weekend was average to above average in 2003 and poor to fair in 2004. Bag checks on opening day in 2004 by wildlife managers and Conservation Officers indicated that most hunters encountered were satisfied with the change to 9 AM shooting hours.

### **Conclusions:**

The results suggest that changing shooting hours on opening day likely did not have a large effect on waterfowl harvest in 2004 compared to 2003. The pattern of harvest was similar both years, but shifted three hours earlier in 2004. Caution should be used when interpreting these results and drawing any inferences because only 1 year of harvest data was available to evaluate the change. This change is not likely to have had a significant impact on the size of the local breeding population in 2005. Other factors, including the size of the local and continental breeding duck populations, annual production of young, habitat conditions, hunting pressure, migration chronology, weather, and other variables contribute to and influence duck harvest on opening day.

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Table 1. Opening day duck harvest in Minnesota, by species, during 2003 and 2004.

Species	2004	2003
Blue-winged teal	43,563	28,317
Wood duck	25,132	29,567
Mallard	20,664	42,476
Green-winged teal	4,189	11,244
Ring-necked duck	3,909	5,830
Northern shoveler	2,234	2,082
Gadwall	1,675	4,164
American wigeon	1,396	1,666
Hooded merganser	1,117	416
Northern pintail	1,117	2,499
Ruddy duck	558	416
Mallard hybrid	279	0
Black duck	279	0
Redhead	279	416
Common goldeneye	279	0
Totals	106,673	129,094

Table 2. Opening day total duck harvest in Minnesota, by hour, during 2003 and 2004.

Hour	2004	2003
< 9 AM	*	*
9-10 AM	47,751	*
10-11 AM	28,483	*
11AM -12 PM	12,566	*
12-1 PM	4,468	46,640
1-2 PM	3,351	33,731
2-3 PM	1,675	18,739
3-4 PM	3,351	12,909
Unknown time	858	5,414
Before legal shooting hours*	4,189*	11,659*
Totals	106,673	129,094

\*Although some harvest was reported earlier than 12 PM in 2003 and 9 AM in 2004, this does not necessarily mean harvest occurred prior to legal hours. Hunters may have recorded an incorrect hour or day when filling out their hunter survey cards.