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AN ANALYSIS OF THE 1990 EXPERIMENTAL EARLY SEPTEMBER HUNT TO MANAGE GIANT CANADA GEESE IN SOUTHEAST WISCONSIN

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Wisconsin's resident Canada goose populations have increased substantially in recent years. The geese have been so successful in urban areas of southeastern Wisconsin and Green Bay that they are becoming a nuisance on lawns and golf courses and in parks. Reduced hunter pressure in the southeast has contributed to the population's fast growth. Wheeler and Cole's 1988 survey (1990) estimated the population of resident Canada geese in the area at 5,000. We believe it may now number more than 7,000.

To better manage these birds the Department began a 3-year experimental early season hunt in 1990. This report documents the first year of that hunt.

Special Rules

Most of the state's resident, breeding goose population is described as the giant Canada goose (*Branta canadensis maxima*). The transient population is *B. c. interior*, called Interiors. The U.S. Fish and Wildlife Service (USFWS) permitted the experimental hunt, requiring that no more than 10% of the harvest could be geese from the Mississippi Valley Population (MVP) of interior Canada geese. The state also agreed to report on the sex, age, and racial composition of the harvest.

Methods

Neck collar observations were collected from the years 1988-1990 for the periods before, during, and after the hunt to determine whether interior Canada geese were present in significant numbers.

Free permits were issued to any licensed hunter submitting a valid application by August 3, 1990. Hunters were required to return the permit after the season, reporting whether and when they hunted and how many geese they killed each day. They were also asked to submit voluntarily the heads, wings, legs, and tail fans from their geese. We summarized the reports using SAS, a standard computerized statistics package. Unsolicited written comments were read and grouped by content. Body parts were analyzed to determine the races of birds harvested.

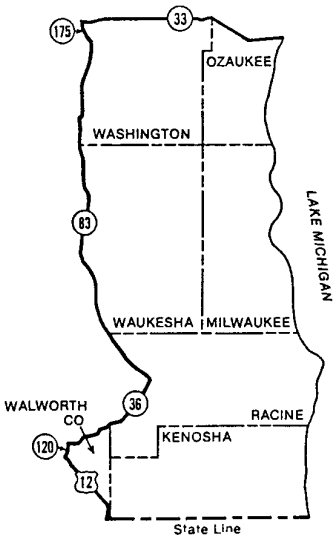

Figure 1. Southeast subzone experimental Canada goose hunt boundaries.

Hunt Structure

The hunt subzone included all or portions of Ozaukee, Washington, Waukesha, Milwaukee, Racine, Kenosha, and Walworth counties (Fig. 1). The season ran September 4-10. Participants were required to have their special early season hunt permits in hand. They could harvest 5 Canada geese daily and have 10 in possession. Otherwise, normal waterfowl hunting rules applied.

Neckband Observations

Only 6 geese with orange collars (Interiors) were observed before the hunt period and 2 during the hunt period (Table 1). This finding indicates that there is no substantial influx of migrant geese before or during this time. Observations at Horicon indicate that the first migrants generally arrive in mid-September.

Participation

There were 19,561 permits issued for the hunt. Ninety-eight percent of these permits (19,307) were issued to Wisconsin residents and 1% to Illinois residents (219 permits). Thirty-five hunters from 11 other states also received permits. Unfortunately, only a third of the hunters (6,614) complied with the reporting requirement and there was no follow-up contact of non-respondents. This low response rate presents difficulties in estimating participation and harvest.

Of the permittees who returned reports, 2,778 or 42% reported hunting at least one day. If this sample is representative of all permittees, the southeast subzone experimental hunt provided hunting opportunity to over 8,000 individuals. However, there is reason to assume that participation was much lower than 42%. In general, successful hunters are more likely to report their hunt. Furthermore, for other goose seasons over the past 3 years, Wisconsin has required harvest reports only from successful hunters.

Table 1. Goose neck collar observations in the experimental early season hunting subzone, 1988-90.

Item	Aug. 15-31	Sep. 1-10	Sep. 11-20
Geese Observed	11,748	7,727	25,508
Collared Giants	901	590	842
Collared Interiors	6	2	33

Table 2. Estimated participant days assuming 3,000 active hunters.

Days Hunted	Percent of Hunters	Participant Days
1	31	930
2	30	1,800
3	16	1,440
4	9	1,080
5	6	900
6	3	540
7	5	1,050
Total	100	7,740

As a result, participation estimates range from 2,778 to approximately 8,000. However, we feel that no more than 3,000 hunters actually participated in this hunt. Table 2 breaks down participation by active hunters and estimates hunter days provided by the season.

Hunter Comments

The unsolicited comments from hunters expressed three major concerns: timing, difficulty in finding places to hunt, and subzone boundaries.

Timing: Some hunters felt the hunt should have been held earlier, while others preferred a later hunt. However,

USFWS guidelines stipulated that the hunt be held during the first 10 days of September. An earlier hunt would have allowed hunters to shoot flightless birds, and a later hunt would have coincided with the period that MVP geese begin arriving in the state.

Hunting Sites: Because the area is primarily urban and suburban, some hunters had difficulty finding places to hunt. Press releases before the hunt reported this problem, and a letter to participants alerted hunters to this issue and suggested they check local regulations before hunting. Some municipalities relaxed regulations prohibiting the discharge of firearms, but it was not possible for the Department to provide information on local rules or rule changes.

Subzone: Some hunters felt the subzone boundaries should be changed. This hunt was designed to focus harvest on birds which were creating problems and to test an early season hunt as a way to reduce this problem. Currently only south-eastern Wisconsin and the Green Bay area have significant problems. The Green Bay flock receives harvest pressure during the regular season and during December under a special Brown County subzone hunt. In contrast, hunter pressure has been low in the southeast subzone in recent years.

Parts Collection

Hunters submitted 156 usable bird parts which were analyzed by Department employees using a formula developed by Moser and Rolley (1990). Using this method 153 (98%) of the birds were classified as giant Canada geese.

Harvest

During the one-week season, 711 geese were reported harvested. This success rate is low compared to the regular season statewide goose hunt. The average bag per active hunter, using reported numbers, was 0.25 birds and harvest was 0-10 birds per hunter for the experimental hunt. Only 12% of active hunters harvested any birds (Table 3). Over 50% of the harvest occurred on the first 2 days of the hunt, with the opening day (Tuesday) providing about one-third of the harvest (Table 4).

The reported harvest might account for most of the geese actually harvested. However, we feel it is appropriate to use compliance rates from the statewide harvest to adjust the reported harvest estimate, even though the methodology and hunter populations differ. We cannot assess precisely how compliance during the special hunt may differ from the statewide compliance rates.

Compliance rates for reporting the harvest statewide in 1988 and 1989 were about 88%. In 1990, the compliance rate

Table 3. Distribution of reported season harvest by active hunters.

Season Harvest	Percent of Hunters
0	88
1	6
2	3
3	1
4	1
5-10	1

Table 4. Distribution of reported harvest by weekday.

Weekday	Reported Harvest	Percent Harvest
Tuesday	242	34
Wednesday	135	19
Thursday	50	7
Friday	64	9
Saturday	92	13
Sunday	85	12
Monday	43	6

was 72%. Compliance was assessed by comparing a Department survey of geese harvested with filed reports. Using this technique, we estimate the early season harvest was between 800 and 1,000 birds. For the purpose of this report, we estimate the harvest to be 1,000 birds.

We have not yet received from the USFWS either the band recovery data for the experimental hunt or the results of the 1990 USFWS tail fan survey. Therefore, a harvest estimate based on USFWS information is not possible.

Conclusions

This year's one week hunt removed an estimated 1,000 birds from the southeastern Wisconsin flock of about 7,000. While this harvest probably did not significantly reduce the population, it helped slow its growth. In addition, the hunt provided several thousand days of recreation and may have alleviated some local problems with nuisance geese.

A better method is needed to ensure mandatory hunt questionnaires are returned. This would help us evaluate the experimental hunt in its remaining 2 years and assess biases in the data. One option is repeated contacts with non-respondents. Another is to deny future permits to non-respondents in an attempt to increase response rate.

References

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