

CANADA GOOSE NUMBERS AND GOOSE DAMAGE IN NORTHEASTERN INDIANA

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Any wild animal can be both hero and villain, and Canada geese are no exception. They can and do cause damage. Goose numbers are increasing and present data indicate a positive relationship between goose numbers and goose damage. In Northeastern Indiana, Canada geese (*Branta canadensis maxima* and *B. c. interior*) damage agricultural crops and cause esthetic damage to lawns, boats, docks and beaches. Indiana is not the only midwestern state with a goose damage problem. During the last year, Wisconsin registered 235 goose damage complaints, Ohio 160, Michigan over 100, Minnesota 46 and Illinois 31 (personal communications with state officials).

Prompted by increasing damage complaints, extensive goose surveys covering 9 northeastern Indiana counties were initiated in the spring of 1981. This section of the state has the best goose nesting habitat in Indiana, containing thousands of natural lakes and marshes which provide excellent goose nesting habitat. State-wide nesting surveys indicate the highest nesting density to be in this section of the state. Because this area has the highest goose population, it also has the greatest potential for goose damage.

Ground nesting surveys are conducted each spring by Indiana Department of Natural Resources (IDNR) personnel. Nesting pairs, observed nests, and brood counts are recorded. In northeastern Indiana, a total of 181 nesting pairs were seen in 1981, 248 in 1982, and 314 in 1983.

Aerial surveys of northeastern Indiana are flown each spring, fall and winter to provide data for evaluating production, pre-hunting season population levels, seasonal distribution changes, and winter build-ups.

The spring 1981 aerial survey indicated 1,459 geese. The fall 1981 survey indicated 1,863 geese. The spring and fall 1982 surveys indicated 1,491 and 4,566 geese, respectively. On the 1983 spring survey, 2,528 geese were reported.

On a statewide basis, the December Goose Survey has shown a continuing increase in Giant Canada goose numbers from 1,300 in 1976, to 7,300 in 1982 (Gamble 1983).

The majority of goose damage probably goes unreported. Either the land owner does not see the damage or it is accepted as part of the cost of doing business.

About the only time a formal damage complaint is filed is when the damage has reached epidemic proportions.

When a complaint is received by either Indiana DNR or the U.S. Fish and Wildlife Service, a field investigation is conducted and a damage report filed. Generally, the field investigations are a joint project involving both the IDNR District Biologist and the US FWS Wildlife Assistance Wildlife Biologist. The major objective of the field investigation is to determine the primary cause of the problem, and practical, viable solutions. The complainant is provided oral and written recommendations on how to correct the situation. When artificial feeding is the cause of the problem, no action will be taken by IDNR or US FWS personnel until all artificial feeding is stopped.

Under the Indiana nuisance waterfowl management policy, increased hunting is always given primary consideration, followed by repellents, biological control and, lastly, relocation. Where relocation is the only viable option, 51 per cent of the land owners involved must agree before the state will initiate any action. In cases involving 25 or more birds, IDNR will trap and relocate problem flocks at state expense. Flocks of less than 25 birds will be trapped at land owner expense and turned over to IDNR or US FWS for relocation.

The primary crops damaged by geese are soybeans, corn and winter wheat. Soybeans and corn are most vulnerable when the plant is in the early development stage. Winter wheat is vulnerable in the fall and spring, with some winter damage when snow cover is lacking.

In 1979, 2 complaints were received, representing an estimated loss of \$5,000. In 1980, 5 goose damage complaints were filed, representing an estimated loss of \$3,400. In 1981, only 2 complaints were received. (1981 was an extremely late, wet spring and as a result, many farmers did not get any crops planted.) In 1982, 8 complaints were filed representing an estimated loss of \$5,700. Thus far in 1983, 7 complaints involving an estimated loss of \$3,800 have been received.

The total economic impact of damage caused by geese is difficult to assess. On a state-wide basis, the loss to agriculture is minimal. However, on a case-by-case basis, the loss to an individual farmer can be significant. For example, one soybean farmer in 1982 suffered over \$4,000 worth of goose damage to a 21-acre field.

Esthetic damage occurs at all times of the year. Most affected landowners bring this type of damage on themselves, and this usually involves a rather strange

behavior pattern that, for lack of a better name, we call the "Goose-Pet-Pest Syndrome." By way of illustration: One landowner attracted a pair of geese to his newly constructed ornamental pond by putting up a nest platform and providing food. To him, that first pair of geese were HIS geese. The first few broods were HIS geese, and Heaven help anyone who wanted to hunt them! But, by the time the pair had turned into or attracted 40 or 50 geese, they were no longer his geese. They were now state or federal birds, and he wanted us to get OUR birds off his land, and he wanted US to pay for the damage OUR birds did to his land.

It is doubtful that any real economic losses result from this type of damage. However, esthetic damage is important if for no other reason than its effect on public relations between landowners and state and federal wildlife management agencies.

As I briefly mentioned before, there are 4 basic goose damage control strategies: Hunting, Repelling, Biological Control and Relocation. But, because of economic, demographic and geopolitical realities, no 1 method is viable in every situation. I am sure that all of you are familiar with these methods, and therefore I will not spend any time on them. I do want to make a few comments about a chemical repellent and the current goose relocation program in Indiana.

At this time, there are no chemical repellents specifically registered for the control of goose damage to agricultural crops. However, under FIFRA section 2e.e, Mesurol (R) 50 WP seed treatment was tried in informal field trials as a goose repellent in corn. Mesurol did stop sprout pulling, but it did not stop grazing. More research needs to be done with this material.

In some cases, trapping and relocating of nuisance geese may not be a last resort measure to eliminate a problem flock.

At this time, IDNR is actively engaged in relocating geese in an effort to establish additional flocks at suitable locations throughout the state. In 1981 and 1982, IDNR relocated 350 nuisance geese from the northeastern to southwestern parts of the state. In 1983, 320 nuisance geese from the northeast were relocated to Willow Slough State Fish and Wildlife Area in the northwest part of the state. This area is scheduled for additional shipments in 1984 and 1985.

All geese relocated in 1982 and 1983 were marked with large blue plastic leg bands. Thus far, none of them has returned to the point of capture.

At the present time, goose habitat in the midwest in general, and in northeastern Indiana in particular, is not at carrying capacity and goose numbers are increasing. Resident Giant Canada geese appear to be making up a larger percentage of the total Mississippi Flyway population. In 1976, Giant Canada geese made up 6.4 per cent of the total. By 1982, this had risen to 18.7 per cent of the total (Gamble 1983).

The US FWS Region 3 population objective for Tennessee Valley Population Canada Geese is to reach and maintain an average, post-hunting season population of 150,000 birds. They want still more geese!

The objective of the Indiana DNR Division of Fish and Wildlife is to increase both resident and migratory Canada goose numbers within the state. They want more geese, too!

Both resident and migratory geese respond to management practices implemented to benefit either. Both resident and migratory geese cause damage. Data indicate that more geese will result in more damage. Somehow, a balance must be struck between the desired number of geese and an acceptable level of damage caused by geese.

REFERENCE

Gamble, K. 1982. December, 1982 Goose Survey Mississippi Flyway.