



GeesePeace – a model program for Communities

Canada geese and other wildlife live within or at the fringe of our landscapes and communities which sometimes places them in conflict with us. Our challenge is to devise means for wildlife to live benignly in the transitional space with minimal harm to the wildlife or disruption of the human community, wildlife habitat or natural areas.

Objectives

- Manage resident Canada geese through population stabilization, habitat modifications and site aversion so that the numbers of geese are in balance with other wildlife and no longer pose a significant problem in parks, public areas and recreational facilities.
- Create a model program for the management of Canada geese that is sustainable, economic, effective and non-controversial and engages the whole community in a coordinated, cooperative effort.
- Educate the public on the history of Resident Canada geese, their unique behavior and why recreational feeding of geese and other wildlife is bad for the wildlife and the community.

Resident Canada Geese Behavior - Overview

The GeesePeace program uses adaptive management; adjusting timing and strategies as the situation warrants, and adjusting to changes in geese behavior during the year.

March to mid May:

During mating and nesting (Late February through mid May) the *Resident geese* are in pairs, not in flocks.

When resident Canada geese begin nesting in late March and early April, the mother goose is on her nest and the male (sentinel) goose is close by. Juvenile geese (under three years of age) do not nest, but may pair up or congregate in flocks.

During the mating and nesting period geese should not be chased or harassed unless the nest is located in an area which is close to human activity (like and entrance to a building). If geese are chased during this period they will just find another nesting site nearby resulting in “walk-in” goslings.

Mid May to late June:

In early May, when nesting is completed the resident Canada geese look for a safe place to molt. Since the plan includes extensive egg oiling, there will be no or only a few goslings allowing the resident geese to leave on a molt migration^{1,2}.

Late June to mid August:

Most geese leave on a molt migration. Only injured geese and those geese that had goslings remain at the site. Most geese are flightless by mid June.

Late August and on:

Geese in other areas will have completed their molt so it is possible that geese from these locations will visit program sites as part of their pond hopping after the molt. In September the numbers of geese may increase with the start of the early hunting season as geese may fly out of the rural areas for sanctuary in the suburbs and cities.

¹ **Molt Migration of Atlantic Flyway Resident Population Canada Geese**, Cornell University et al. 2004

² **Movements and Survival of Molt Migrant Canada Geese from Southern Michigan**, LUUKKONEN, PRINCE, MYKUT; The Journal of Wildlife Management 72(2):449–462; 2008



Program Plan

Resident Canada Geese Population Stabilization (Mandatory)

Canada geese population stabilization is a regional/area wide activity. When done on an area-wide basis the possibility of walk in goslings from other location is greatly reduced, if not totally eliminated.

December-March: Meet with stake holders and Community leaders to plan for a coordinated effort to locate geese nests in the program area with the intent of treating as many of these nests as possible to stabilize the current population of resident Canada geese.

Jan - March: Contact property owners and others in the program area whose properties are likely to have nesting geese. The egg depredation will be conducted by the property owner staff or by teams organized by the community and others who are participating in the coordination effort.

March Conduct training seminars on geese biology, locating geese nests, safe interaction with geese, personal safety, laws and regulations related to Canada geese, humane egg treatment protocols, data collection and team coordination. These seminars will be hosted by the program manager community or other stakeholders in the area. GeesePeace provides leadership and training seminars when requested by the community.

April: Locate nests, treat eggs using GeesePeace protocols which include coating eggs with corn oil, egg replacement and strategic nest destruction. If nests are destroyed the goose must be on the nest for two weeks or she may just rebuild the nest nearby and lay more eggs. The exception is that a goose will not be allowed to nest in an area which places her in direct conflict with people, e.g. at entrances to buildings. In these cases the nest will be taken down as soon as it is found with the understanding that the goose may possibly re-nest. In all cases the eggs will be tested by placing one in water. If the egg floats this means the air sac has developed in the egg and it is too far along in development to treat according to GeesePeace and Humane Society of the United States protocols.

Early May: Take down nests so as to set the stage for a molt migration.

Site Aversion (Optional)

When nesting is over in early May, geese walk (if they have goslings) or fly to be near a water body. The water body gives them sanctuary from predators when the geese become flightless (molted). In the GeesePeace program the geese do not have goslings so they do not need to choose a water body close to where they had nested. They are able to leave their nesting area to find a safe place to molt or go on a molt migration. When the area has had a history of abundant Canada geese it may be necessary to use a Border collie *in* a kayak or gas powered boat to assure that the geese leave the area before they molt.

Border collie: The Border collie is perceived by the geese as a threat on land and in the water because the Border collie continues the flush in a kayak or gas powered boat. Geese normally escape a land predator by going into the water. By bringing the Border collie to the geese in a kayak or boat, the water sanctuary is no longer available to the geese, so they must move on. In the first year this may take more effort than in subsequent years because the geese had always molted in the area. In the second year and beyond, the resident geese leave sooner. They already know where to molt migrate and know they cannot escape the Border collie.

Period of operation: Operations begin approximately the second week in May and continue until mid June or early July depending on how long it takes for the geese to leave the area. For the first

three days it may take about an hour to get the geese to leave the area. They may return several times in the day and each time they are flushed from the area. After three days the geese learn that they cannot defeat the Border collie team (one Border collie, two handlers and a kayak or gas powered boat for large water bodies). The geese may continue to return, however with less frequency and when they do return they leave quickly. The numbers returning continually decrease so that by mid June all geese that can fly are gone from the area and do not return until late September of early Oct.

Some communities may wish to continue the program through the fall and winter as migratory birds fly in from the north or the resident Canada geese begin pond hopping. During this time the geese primarily roost at night near water bodies and spend the day light hours in open fields which make them very vulnerable to the Border collie. Inexpensive (under \$100) red or green lasers used at twilight (or dawn) are effective in getting the geese to move away from roosting areas like beaches and boat docks so they roost elsewhere on water bodies which are less problematic. If the geese are roosting, then the lasers used at twilight or dawn get them to move on.

Border collie operations generally end in late February in areas where nesting will occur to avoid chasing nesting geese and increasing the difficulty of locating nests. Where there are juvenile geese (non-nesters) in an area, these geese may be flushed from the site taking care not to disturb geese preparing to nest.

Safety: All handlers and boat drivers and the Border collies wear personal flotation devices when engaged in water operations. The Border collie wears a yellow life jacket at all times to identify the Border collie as a working dog, increase endurance in the water and make the Border collie more visible to the geese from the air.

Handlers and Border collies: Handlers are hired out of the local community, are community staff or volunteers. The Border collies are housed in the area or stay with the handlers. The Border collie host family generally receive a stipend for the care of the border collies. If a commercial Border collie company is hired for site aversion they should agree to comply with all GeesePeace safety and operational protocols.

Supplementary site version strategies:

- Low powered lasers (green or red). Use these in the early morning or at twilight at low light levels. If geese are on a small water body point the low powered laser on a solid object that the geese can see and zigzag the beam in rapid motion.
- Landscaping: For small ponds, tall grasses or bushes at the edge of the pond make the geese nervous because they cannot see potential predators.

No feeding Program (Mandatory)

Recreational feeding of Canada geese at GeesePeace program sites should not be permitted. Feeding bread, corn or other “treats” to geese increases the problem with the geese because this gives them an incentive to stay in the area and may keep them from going on a molt migration.

It also causes geese to approach people who may be afraid of geese. When there are goslings present feeding the goslings may cause “angel wing” which is a deformity of the wing caused by rapid growth of feathers as result of a high protein diet (bread, corn). Feeding geese also causes the geese to congregate in the feeding area increasing the nuisance level in that area and causes geese to become aggressive as they fight over the food.



Expected Results

Parks and recreation areas in the program area and partner entities will experience a significant reduction in the numbers of geese and related conflict by Memorial Day with most geese gone by mid June. In September there may be an increased number of geese when the early geese hunting season begins in September, driving the resident geese from the rural areas into the cities.

After three years there will be a dramatic reduction in geese numbers in the program area during the nesting period. The juvenile geese (under three years old) who were born in the area before the program began will have found another place to nest because they will have learned that the area where they were born is not a good place to nest or molt. The geese who originally nested in the area will continue to do so, but will leave soon after nesting season ends (early May) and start on a molt migration by early June. After three years the site aversion component of the program can be reduced to cover only the period of early May to the first or second week in June. In some instances where feeding geese has totally stopped, the site aversion program may not be necessary at all or only needed just to remind the geese it's time to get moving. The geese will have learned that the earlier they begin their molt migration the better it is for them since they know they cannot molt in the program area and in previous years they have found an alternative place to molt, possibly a great distance away.

Each year there may still be geese in the area if nests were missed. The presence of these few geese will be a positive addition to the natural areas. In the following year they too will join the molt migrant flocks.

As more and more communities/areas implement an egg oiling program, the resident Canada geese population will be stabilized with a significant reduction in the numbers staying in the area during the spring, summer and fall as more and more of the resident geese will go on a molt migration because they do not have goslings keeping them in the program area.

Resident Canada geese — Why they are here – Helping them leave

The resident Canada geese nesting and molting in the program area are the descendents of captured migratory Canada geese.

During the first half of the 20th century, migratory geese were captured for use as live decoys. The resident Canada geese in are the descendents of these captive migratory geese. The captured geese, flight feathers clipped, sometimes with light weights on their legs, lured other migratory Canada geese into lakes, wetlands and rivers during the great Canada geese migrations in the spring and fall. These captive geese were also bred in captivity. As a consequence, their descendents do not have biological need to migrate to Canada since geese nest in the area where they were born.

The near extinction of Canada geese populations - Creating the current conflict

By the early 1960's, because of the increased hunting efficiency resulting from the use of these live decoys, the migratory Canada geese population was threatened with extinction and the resident flocks were mostly gone. To counter this near extinction, the US Fish and Wildlife Service and many State wildlife agencies began a program of re-population of wild Canada geese. They did this by taking the eggs from the nests of the surviving resident Canada geese and artificially incubated these eggs while the geese laid another clutch (double clutch). Nesting enhancement technologies, such as nesting tubs which raised nests above ground, further increased the recovery by reducing predation of nests by other wildlife. By the early 1990's this repopulation effort was halted because it resulted in large resident geese populations in cities and suburban areas.

The resident Canada geese population

Unfortunately, the geese born as a result of the Canada geese repopulation effort do not have the imperative to nest in Canada since they are born here. Resident geese nest here, where their ancestors were forced to nest. And since the climate is temperate in our area and the water bodies do not freeze for long periods of time, the resident Canada geese have no need to fly south to find open water and grass in the winter. Although in harsh weather they will fly south for the short periods of time needed to find open water. Migratory geese nest in Canada because that is where they were born.

Even when it is 10 degrees Fahrenheit, as long as the geese can find open water, they stay warm. The water is 32 degrees and the geese have down on their bellies and chest which insulates them from the cold water.

Resident Canada geese nest in the early spring and have their goslings in May. They must stay in the area to protect and raise their goslings. The goslings cannot fly until mid to late August well after their parent geese molt which begins in June. Therefore, the geese with goslings and the goslings are biologically “trapped” in the area where they had nested and then subsequently molted.

Canada geese under three years of age (juveniles) do not nest, although they will pair up. These juvenile geese and adult geese with and without goslings leave their nesting areas to a safe location to molt (naturally lose flight feathers). This generally is an area which has a water body for sanctuary and nearby grass for food. Canada geese and goslings are very vulnerable to land predators during the molt and need a water body for sanctuary. Compounding the situation other geese that may have nested in nearby areas walk their goslings to sensitive areas like parks and

school grounds and molt there. Also, some juvenile geese (non-nesters) from other places in the neighboring counties who are looking for a good place to nest and molt may pick a water body in the program area.

The geese that do not “molt migrate” and goslings cannot leave until early to mid August when they are again able to fly. Until then, they are trapped because they are flightless. This is a cause of frustration with Canada geese because it seems no matter what one does they do not leave. In fact, they cannot. Unfortunately, this period coincides with the start of the spring active outdoor activities and continues into summer vacation times when people are out in parks.

Molt Migration

Fortunately, resident Canada geese without goslings (juveniles and adult geese with failed nesting) have an option to find a distant place to molt, *before* they are biologically trapped in the area. When geese without goslings leave their nesting area it is called a “molt migration”. Sometimes this molt migration, which begins in early June, can take the geese hundreds of miles away. This has been confirmed by studies on molt migration conducted by Cornell University and the Michigan DNR. They placed satellite tracking devices on geese without goslings. These geese left their local nesting areas in early June and did not return until late September. They molted in James Bay, in Canada.

Also, during the months of September through February, resident Canada geese fly from pond to pond so they are aware of many possible good areas to molt, many of which do not cause problems for communities.

Why do resident geese go on a molt migration?

Geese have a built in mechanism to fly north in the spring (iron in the beak helps them navigate – a built in compass). Canada is a much better place to molt because of the longer daylight hours in the spring and summer and abundant water and grasslands.