

# Positive Benefits and Negative Impacts of Canada Geese

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**W**ildlife populations, including Canada geese (*Branta canadensis*), provide a variety of social and economic benefits for New Jersey residents. Among these benefits are recreational opportunities for viewing and harvesting geese. Although Canada geese provide enjoyment to many, they sometimes come into conflict with human land use practices, raise concerns about human health and safety, and negatively impact natural resources. This publication will address positive benefits and negative impacts of Canada geese in New Jersey.

Two distinct populations of Canada geese can be found in New Jersey and throughout the continental United States. 1) **Migratory Canada geese** nest in localized areas throughout Canada, Newfoundland, Labrador, and Alaska and **migrate** annually to winter in the continental United States with some reaching as far south as northern Mexico. 2) **Resident Canada geese** nest and/or reside predominantly within the continental United States and typically **do not migrate** to annual wintering grounds. As the name suggests, they are usually permanent residents of the area in which they are found. In New Jersey, negative impacts are often attributed primarily to the resident Canada goose population. Both migratory and resident Canada geese are legally considered migratory waterfowl and are afforded protection under the Migratory Bird Treaty Act. (For more information consult: Drake, D. and J.B. Paulin. FS 1024. 2002. "A goose is a goose? Differences between migratory and resident Canada geese." Rutgers Cooperative Extension).

## POSITIVE BENEFITS

Canada geese provide many positive benefits for New Jersey residents. Annually, recreational opportunities such as wildlife-watching and sport hunting contribute a significant amount of money to the New Jersey economy. Canada geese also provide ecological benefits that aid in the survival of other plants and animals. Many New Jerseyans take pleasure in knowing that Canada geese are present in the Garden State. Some of the recreational, economic, aesthetic, and ecological benefits of Canada geese include:

### Recreational and Economic:

Canada geese are often enjoyed for the recreational opportunities they provide New Jerseyans. Bird watching and sport hunting are two categories that include Canada geese and are among the most popular recreational opportunities in the Garden State



Bird Watching



and nationally. For example, in 1996, New Jersey birders spent in excess of \$153 million on binoculars, spotting scopes and other associated costs. The number of people participating in birding activities within New Jersey, including watching, photographing, and feeding, exceeded 18 million people in 2001. Total wildlife-watching expenditures for New Jersey in 2001 were greater than \$1.2 billion.

According to 1996 statistics, sport hunters spent \$1.2 billion nationally on migratory bird hunting. It was estimated in 1997 that as these funds flowed through the national economy, they generated \$8.2 billion in economic output and 95,700 jobs. As the number of migratory bird hunters reached nearly 3 million in 2001, national expenditures increased to \$1.4 billion. Total hunting expenditures for New Jersey in 2001 amounted to nearly \$151 million. Based on information from 1991, the New Jersey Division of Fish and Wildlife estimated that migratory bird hunting alone contributed \$12 million annually to the New Jersey economy.

### **Aesthetic:**

Aesthetics is a philosophy that deals with the nature and appreciation of things considered to be beautiful. It is subjective and therefore dependent upon the observer. Many people find Canada geese to be beautiful, enjoy watching them, and take pleasure in knowing that they exist.



A common New Jersey scene.

### **Ecological:**

Canada geese provide several ecological benefits that may aid other plants and animals. They can serve as seed dispersers by eating plants in one area and then depositing seeds in another area when defecating. Goose feces, in moderation, can contribute to soil fertility by adding nutrients. As part of the food chain, adult geese, goslings, and eggs provide food for animals such as fox, snakes, raccoons, and turtles.



Canada geese provide many ecological benefits.

### **NEGATIVE IMPACTS**

Common landscaping practices of maintaining open areas of short grass, often near bodies of water, have contributed to resident Canada goose populations becoming established in many suburban and urban areas around the state. Abundant habitat availability, combined with the loss of natural predators, absence of hunting in many areas, and free hand-outs from people, have led to a significant increase in the resident Canada goose population in New Jersey and elsewhere. Resident geese have been known to negatively impact agricultural crops, raise concerns about human health and safety issues, and damage residential, commercial, and public property.

### **Agricultural Damage:**

Canada geese have benefited from the agricultural products of humans more than any other waterfowl species. Agricultural damage caused by Canada geese includes the grazing and trampling of grain crops, pastures, and spring seedlings. Crops typically affected are alfalfa, barley, corn, soybeans,

wheat, rye, and oats. Grazing can result in reduced crop yields and in some instances the loss of an entire crop. In addition, although no direct links have been made to support the transmission of *pathogens* (micro-organisms that can cause disease or illness) from geese to livestock, the possible affects of goose droppings on water quality in and around livestock ponds, as well as in grazing areas where feces can be ingested by livestock, have raised concerns of livestock producers.

### **Human Health and Safety:**

Many New Jersey residents are concerned that Canada geese pose a potential threat to human health and safety. There has been speculation from public resource managers, citizens, and the media that Canada geese can transmit diseases to humans through direct contact with feces or through water-borne disease transmission. Although scientific studies have shown Canada goose feces to possess human pathogens such as *Cryptosporidium species*, *Giardia species*, *Salmonella species*, and *E. coli*, the potential risk of transmission to humans is not well understood. However, drinking water reservoirs and swimming areas have been temporarily closed due to high levels of *E. coli* attributed to goose feces.



Canada geese can be aggressive.

As a precautionary measure people are encouraged to minimize direct contact with goose feces, remove shoes prior to entering the home following contact, and wash hands thoroughly with an antibacterial soap. Additional examples of safety concerns include goose/aircraft collisions, traffic hazards, slipping on goose droppings, and being attacked by aggressive geese (which often occurs when people get too close to nests or goslings).

### **Residential, Commercial, and Public Property Damage:**

Resident Canada geese are often responsible for grazing damage to turf grass or intolerable levels of defecation at public parks and beaches, airports, water treatment reservoirs, corporate business areas, golf courses, schools, college campuses, private lawns, cemeteries, and community dwellings. Overgrazing and trampling of turf grasses as well as other grassy areas are common complaints from groundskeepers of golf courses and athletic fields. Associated labor and re-seeding costs can be very expensive. Additionally, goose droppings have proven to be a nuisance in recreational sports such as golf and soccer. Parents whose children play on fields littered with goose feces have become concerned about the increased chances of slipping-related injuries. In parks and elsewhere the costs for employees cleaning-up goose droppings have added to the overall expense of managing resident Canada geese.



Canada geese feces along bike and pedestrian path.

### **Natural Resource Damage:**

Frequently cited examples of natural resource damage caused by Canada geese include grazing and trampling damage to restored and native wetlands, degraded water quality from fecal contamination, and erosion that occurs when geese eat and trample vegetation on slopes adjacent to bodies of water. Large amounts of goose feces in water bodies can also lead to algal blooms that cause oxygen depletion. This reduces the amount of oxygen available for, and can result in the exclusion or reduction of, aquatic plants and insects, fish, and wildlife species that would normally be present.

## SUMMARY:

Canada geese in New Jersey and elsewhere provide a range of economic, recreational, aesthetic, and ecological benefits. However, these positive benefits are often overlooked because of negative impacts to agricultural crops and damage to residential, commercial and public property, and natural resources. Concerns raised by citizens, natural resource managers, and the media about possible human health and safety issues have also had an effect on the way Canada geese are now perceived by the general public.

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