

## The Canada Goose in Florida<sup>1</sup>

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### Identification and Biology

The shape, sound, color, and size of the Canada goose make it difficult to confuse with most North American birds (Figure 1). The largest subspecies of Canada goose, the giant Canada goose, is the biggest goose in the world and can attain a 45" length, 60" wingspan, and weigh 20 pounds. Their long necks and head are black with a distinguishing white "chin-strap," but some individuals may have a completely black head or white forehead. They have a pale gray-brown breast, brown-gray upperparts, black tail, and white undertail. Although they have 13 types of vocalizations, most people recognize Canada geese by their loud trademark "ka-ronk" made when flying in a "V" formation.

In the past, scientists recognized 11 Canada goose subspecies (physically distinct populations or races within a species) that were in 2 broad categories: the large-bodied and small-bodied. Recent studies have shown that the 2 categories have been separated genetically for the last 1 million years, and are 2 distinct species, the smaller cackling goose and the larger Canada goose. The cackling goose has 4 subspecies and is generally found in western and northwestern North America, breeding in the tundra



**Figure 1.** The Canada goose. Credits: U.S. Fish and Wildlife Service/R. Hagerty (2001).

of the Northwest Territories, Yukon, Nunavut, and Alaska. The Canada goose has 7 subspecies and is found throughout midwestern, northern, and eastern North America. Although it is sometimes difficult to distinguish between cackling and Canada geese, this should not be a problem in Florida as only the Canada goose is found here.

Canada geese are fairly long-lived with some individuals reaching 30 years of age in the wild. They are monogamous and form life-partnerships in their second or third year. However, they usually do not successfully breed until the fourth year. Canada

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geese normally lay only one clutch each year that averages 4-5.6 eggs. In the breeding season, the pairs become very territorial and split from the flock to find suitable nesting habitat. Typically, females incubate the eggs for 25-28 days while males patrol and defend the territory around the nest. Once hatched, both the mother and father defend the family unit.

Young goslings are covered with fine down feathers and able to leave the nest within one day of hatching. At this time, they are fully capable of walking, swimming, diving, and feeding (Figure 2). This is very important as the goslings are not fed by their mother; rather they must graze on the land and forage underwater for aquatic plants. Depending on the subspecies, the goslings gain the ability to fly at 6-9 weeks. After fledging (growing feathers capable of flight) the family group leaves the breeding area to join the larger flock. Once back in the flock, family groups will eventually break up as the goslings begin trial pairings with members of the opposite sex.



**Figure 2.** A Canada goose with a brood of goslings. Credits: U.S. Fish and Wildlife Service/D. Dewhurst (2005).

## Food and Nesting Habitat

Unlike most birds, the Canada goose is primarily a grazer, relying mainly on grasses and sedges (grass-like plants with triangular stems) for food. Their bills are adapted to grazing; long and flat with a sharp, serrated interior. In addition, they are able to strip seeds from grains and grass seed heads, tear submerged plants from riverbeds, lakes, and ponds, pick berries, rip bulbs from the ground, and even remove dried corn from the cob.

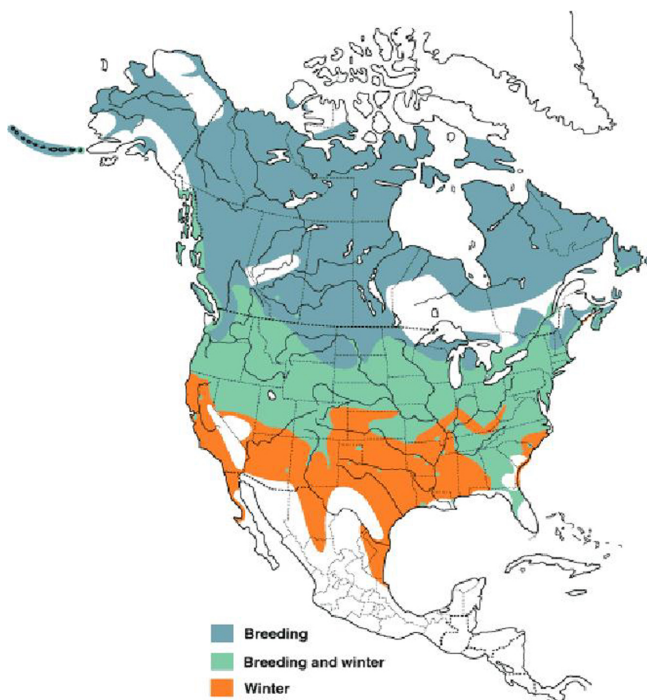
In the northern breeding areas, Canada geese will nest in a variety of locations. They select areas near permanent water sources with a clear view in all directions. Some of the best nesting habitat is found on small islands (Figure 3). With a good view, they can easily detect predators and because they are adept swimmers, dash for cover in the open water if necessary. Harvested agricultural fields containing bodies of water often prove to be good breeding habitat. Geese permanently residing in urban/suburban areas also prefer open water and small islands with a view. With plentiful ponds and mown grass, prime Canada goose habitat is commonly found on golf courses and in parks.



**Figure 3.** Canada geese select nest sites near open water with a clear view of the surroundings. Prime locations are frequently found on small islands. Credits: U.S. Fish and Wildlife Service/T. Kelley (1985).

## Distribution, Migration, and Permanent Residents

Nearly all Canada goose populations migrate (Figure 4). The fall migration is usually stimulated by the onset of winter as the grasses and sedges become dormant. Spring migratory flocks traditionally follow the receding winter snowline north. As the snow and frozen ground thaw each year, they expose ample space for breeding pairs as they split from flocks to form territories, an abundance of prime nesting habitat in wetlands, and succulent new plant shoots for food. Populations breeding in the northern reaches of Canada and Alaska tend to migrate the furthest, wintering in the southern United States and Mexico. Many populations breeding in the United States lower 48 states migrate over shorter distances.



**Figure 4.** Canada goose distribution in North America. Northern *breeding* populations typically migrate long distances to the southern *winter* areas. Birds in the joint *breeding and winter* area migrate over shorter distances to southern *winter* areas or not at all. Credits: Cornell Lab of Ornithology and American Ornithologists' Union (2002).

In more recent times, agriculture and urbanization have changed migratory behaviors, timing, and patterns. With mechanized large-scale agriculture, crop residue, especially corn, now remains on the ground. This new found, nutritious,

and energy-rich supply has caused southerly migrating geese to extend their stopovers at resting points further north, as harvested grains have artificially supplemented their diets and the need to fly further south is reduced or totally stopped. This has drastically reduced some migration distances and some populations have ceased to migrate. Additionally, urban/suburban golf courses, parks, and other areas have provided habitat where Canada geese can take up permanent residence as they have continuous food supplies and ample nesting habitat. This is further compounded by artificial feeding of waterfowl by urbanites.

Historically, the migratory population of Florida Canada geese numbered approximately 47,000 birds and wintered in the Panhandle. This population bred mainly along the south coast of Baffin Island and the Ungava Peninsula in Canada. In the mid-1970s, wildlife biologists discovered that the Canada goose populations wintering in Florida had declined to only 1,000-2,000 birds. Although nationally, populations had declined drastically by the 1950s due to habitat transformation, agricultural chemicals, and over-harvesting, the Florida reduction was mainly caused by the short-stopping of birds as they migrated south through the Tennessee Valley. As agricultural fields expanded in this area, the crop residue left after harvest gave the migrating geese a new food source that was historically not available in winter months. This enabled many birds that would normally winter in Florida to winter in the Tennessee Valley. Currently, the Florida Fish and Wildlife Conservation Commission (FWC) estimates that Florida has a stable population of about 1,000 migratory Canada geese.

In the 1960s and 1970s, the FWC released populations of the giant Canada goose subspecies in Lake, Jackson, Leon, Wakulla, Jefferson, Alachua, and Duval Counties. These non-migratory birds established resident breeding populations in Duval, Leon, Alachua, Marion, Volusia, Santa Rosa, Manatee, Seminole, and Dade Counties. The FWC believes these birds are continuing to expand their range southward and will establish new breeding populations.



## Conservation

The Canada goose is a conservation success story on par with that of white-tailed deer and wild turkey. Until the 1950s, Canada goose populations were drastically reduced due to habitat transformation, the expanded use of dangerous agricultural pesticides, and over-harvesting. Some wildlife management programs such as the National Wildlife Refuge System and a more regulated harvest assisted with their recovery. In addition to these management steps, much of the Canada goose recovery was inadvertent as agriculture became more productive and more crop residue was left behind. With this increased food supply, although it continues to cause some migration problems, Canada goose populations grew.

Although populations of most Canada goose subspecies started to recover in the 1960s, the giant Canada goose subspecies was thought to have gone extinct. In an exciting find, a population was rediscovered in 1962 in Rochester, Minnesota. Since then, this subspecies has been captively bred and reintroduced into the wild. The reintroduced birds have thrived in most areas, including the resident Florida populations.

## Conflict and Control

The Canada goose success story is starting to outgrow some peoples' tolerance for them and their by-products, mainly feces. Canada geese have started to become an annoyance to motorists as they cross busy streets at any time of the day, including rush-hour. Unfortunately for Canada geese, they thrive in areas frequently used for human recreational activities. Golf courses, public parks, reservoirs, ponds, lakes, and athletic fields can provide excellent habitat for resident geese. These large birds, especially the giant Canada goose subspecies, produce large amounts of feces. This is an unpleasant sight to many people, can divert balls on the putting surface, is seen as a possible disease risk by the public, and can pollute water sources. In more rural areas, growing Canada goose populations lead to increased crop losses, as they sometimes feed on standing or ripening grains or nip recently planted crops as they grow. Finally, Canada geese are an

airport safety concern as they can cause airplane accidents if sucked into the engines.

If Canada geese start to become a nuisance, people must think and plan very carefully before starting any control measures. All Canada geese, including the permanent resident geese, are protected under the Federal Migratory Bird Treaty Act. This makes any direct control, such as killing, touching, or disturbing live geese, nests, or eggs by a person or his/her property (including pets), of problem geese difficult. Any direct control measures must be done with the permission of the U.S. Fish and Wildlife Service and the Florida Fish and Wildlife Conservation Commission. People can take some indirect measures that have proven successful in some areas:

- Stop feeding geese
- Fence areas to exclude geese
- Grid ponds with wire so geese will not land
- Allow grass to grow tall, especially along lakeshores and riverbanks, because geese prefer short grass to eat, easy sighting of predators, and quick and easy access to escape cover on the open water

## Further Information on Canada Geese

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