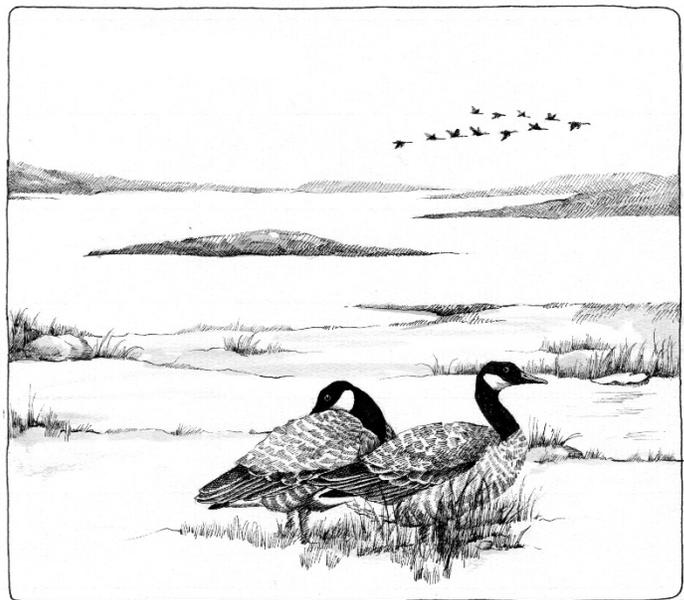


The Outside Story

The Canada Goose Migration: a Grand Spectacle of Nature

By Susan Shea

The musical honking of Canada geese and their V-shaped flocks streaming overhead are classic signs of autumn. I hear the clamor of geese as they fly low over my house, preparing to land in the hayfield in our valley. Sometimes I spot the large, black-necked birds before they take off to continue their journey. Where are they coming from, I wonder, and where are they going?



The majority of Canada geese breed in Canada and Alaska, although they now nest in all of the lower 48 states. Geese that breed in the northernmost parts of their range migrate long distances to winter in the central and southern United States and as far south as Mexico. Those nesting in southern Canada and the northern U.S. migrate shorter distances. In places where the water does not freeze and humans have created ideal goose habitat in the form of parks, golf courses, and agricultural fields, Canada geese find abundant food year-round and may not migrate at all.

Some of the Canada geese that migrate through the Northeast during the fall are part of the so-called Atlantic Population, comprised of a smaller-bodied subspecies of Canada goose. These birds nest in northern Quebec and fly over Vermont and New York State west of the Connecticut River en route to their wintering grounds on the Atlantic Coast between New Jersey and North Carolina. Chesapeake Bay and the Delmarva Peninsula in Delaware and the eastern shores of Maryland and Virginia host large concentrations of these geese. Other Canada geese migrating over our region are from the North Atlantic Population, breeding in eastern Labrador and Newfoundland. They generally follow the coastline, or Atlantic Flyway, on their journey to wintering grounds only as far south as the coast of New England.

Decreasing daylength in late August and September cues the geese to begin congregating at staging areas along the shores of Labrador and Newfoundland and in the Ungava, Hudson, and James bays. Family groups of parents and young stay together for a year and migrate together. As geese begin to call louder and louder and point their beaks towards the sky, suddenly a flock takes off, a loose group of families and individuals, headed south.

Flocks usually arrange themselves in a V-formation to reduce wind resistance and conserve energy. The lead goose must contend with more drag forces, so experienced individuals take turns leading. Each goose flies

behind and to the side, or above, the bird in front of it, taking advantage of the updraft produced when the preceding bird flaps its wings. According to the *Audubon Encyclopedia of North American Birds*, geese flying in a V-formation can fly as much as 71 percent farther than they could individually.

Migrating Canada geese fly at relatively low altitudes, usually between 980 and 3,300 feet. They often travel at speeds of more than 30 miles per hour. Studies have shown that geese from the Atlantic Population complete the trip to their wintering range in less than a week, and some flocks make the journey in a single day. In fall, flocks often use the winds of incoming high pressure weather systems to assist their flight. Researchers believe Canada geese use landmarks such as rivers, coastlines, and mountains to navigate, as well as the sun, stars, and the earth's magnetic field. Juvenile geese learn migration routes by following their parents.

Most Canada geese are very vocal while flying, using their calls to coordinate movements of the flock. Flocks stop to rest and feed along the way at traditional stopover sites. Bad weather may cause them to reverse direction and temporarily retreat north. The timing of migration can vary, but geese that breed in northern Canada and migrate over our region usually have reached their wintering grounds by late October. Those moving around in November and December are likely Northeastern residents travelling shorter distances.

Migratory geese generally winter in coastal areas with slow-moving rivers, bays, marshes, and tidal flats and near agricultural fields where they feed on grasses and waste grains. Some Canada geese do not winter as far south as they used to due to climate change, farming practices that leave more grain in the fields, and changes in hunting pressure.

I've always been impressed with the arduous migration Canada geese undertake, their navigational skills, and ability to fly as a unit. Observing the flocks passing overhead is an annual autumn ritual for me – and a sure sign of winter's coming.

Susan Shea is a naturalist, writer, and conservationist based in Vermont. Illustration by Adelaide Murphy Tyrol. The Outside Story is assigned and edited by Northern Woodlands magazine and sponsored by the Wellborn Ecology Fund of the New Hampshire Charitable Foundation: www.nhcf.org.

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