The Wetlands of Charlotte Are Home for Wildlife

Wetlands are critical habitats for many species of wildlife. Although wetlands occupy only about 5% of Vermont’s landscape, they host roughly 10% of its vertebrate species (mammals, birds, reptiles, amphibians, and fish). Because wetlands cover such a small portion of the state, they also host many animals that are rare in Vermont, such as bald eagles, osprey, blue-spotted salamanders, and spiny softshell turtles. In the town of Charlotte, there are more than 1,100 wetlands, making up 10% of our landscape.

**Mammals**

**BLACK BEAR** — Many people do not realize that the black bear is an animal that uses wetlands. Black bears primarily eat berries, nuts, grass, and plants. Acorns and beech nuts are important fall foods called mast, and their abundance regulates bear populations. In good mast years, female bears will fatten up enough in the fall to give birth during their winter dormancy. In poor mast years when mother gain little weight, fawns will drop, due to a physiological mechanism that “recovers” the mother bear to support her cubs through her long winter sleep. When bears emerge in April, they have not eaten for four to five months. They must find a nutritious food source right away. Wetland plants, because they are often the first plants to emerge in spring, are an important early food item for bears, providing much-needed nutrition when most plant life is still dormant.

**BEAVER** — Beavers do not depend on wetlands so much as they require them to modify them. Beavers dam small streams to provide pools in which to take refuge from danger. These large rodents are very damage on land, but they are excellent swimmers, and can stay underwater for up to 15 minutes without coming up for air. The above-water room inside a beaver lodge can only be entered through one or two underwater tunnels. Beavers eat the bark of saplings and trees in and around their ponds, supplementing their diet in the summer with aquatic plants. These warm-blooded mammals are active all winter and mate in January and February — but are usually seen then since they cannot leave their co-covered lodges. To eat in the water, beavers swim out of their lodge and under the ice to forage on the pile of sticks they stored underwater in the fall.

**MOOSE** — Moose are well known to frequent wetlands in the summer. Moose are the largest members of the deer family, capable of reaching cars of 1,400 pounds, and need an abundant food supply to stay healthy. Moose eat a variety of ground plants, as well as the buds, mats, and bark of trees. It requires a diet so rich in iron that it is challenging, a need four stomachs to digest its food. In the summer, moose spend lots of time in wetlands foraging on aquatic plants. Compared to buck, these tender and succulent plants make a delicious treat for the moose as fresh new plants are for us. By immersing themselves in wetlands in summer months, moose find a refuge from deer flies, mosquitoes, and the black fly — an insect that feels like it must be just for deer.

**REVERE OTTER** — This member of the weasel family is one of the most playful and energetic animals one can encounter in the wild. Track them in the woods through winter snow and you will see that their dials on their bellies every chance they get, even on slight inclines that are only a few feet long. Otters spend much of their time in water, preying on just about anything that moves, fish, frogs, salamanders, snakes, and crayfish. Otters often use wetlands, as well as rivers, streams, and lakes.

**Birds**

Wetlands in Charlotte and all of the Champlain Valley are important habitat not just for resident species, but for birds that migrate through Vermont as well. The Champlain Valley is one of the few areas in New England with large marshes, and this, in combination with being home to a large lake, makes the valley a primary stopover area for migrating waterfowl. The thousands of snow geese that stop at Dead Creek at the fall are testimony to this fact. Other migratory waterfowl, such as American wigeon, gadwall, northern pintail, and blue winged teal, can be seen in Charlotte’s marshes during spring and fall. Several wading bird species breed in the town’s wetlands in the late spring and summer, including wood duck, green-winged teal, and mallard. Besides waterfowl, Charlotte’s marshes host many species of wading birds and shore birds. They also host some birds that are rare or uncommon in Vermont. American bittern, least bittern, common moorhen, pied-billed grebe, black tern, scoter, and Virginia rail.

**Fishes**

Many fish species, despite spending most of their time in rivers or lakes, benefit from wetlands by using them for breeding and/or cover. Examples include pumpkinseed, bluegill, bowfin, and gar. Some sport fish species such as northern pike use wetlands along the shores of Lake Champlain.

**Reptiles and Amphibians**

Most amphibians, and some reptiles, depend on wetland habitat. Many common animals such as bullfrogs and painted turtles live in permanent or semi-permanent water such as lakes, ponds, and marshes. Rare species such as the blue-spotted salamander and the wood turtle are found in the wetlands of Charlotte.

A group of very mysterious animals known as the mole salamanders — because they spend most of their lives underground — depend on temporary wetlands called vernal pools. These are small pools in forests, ranging in size from big puddles to a half acre. They fill during the spring and dry up quickly during the fall. A few snowy seasons and dry out after a few weeks to months. Several mole salamander species rely on vernal pools for breeding. These include spotted salamanders, marbled salamanders, and Jefferson salamanders. These creatures emerge from underground for a few weeks in early spring, mate, and lay jelly-like egg masses in vernal pools. Because the pools eventually dry out, they contain no fish species, which are voracious predators of salamander eggs. Thus, by breeding in vernal pools, salamanders maximize the survival chances of their offspring.

Vernal pools and other wetlands in Charlotte are protected by local, state, and federal rules. Most cases, they cannot be disturbed without special permission. Nevertheless, we have lost many of the past to people filling them in, and changing drainage patterns. Often, these are negative impacts on wetlands from activities in upland areas around them, especially from land use changes for roads, houses, and other development. This makes our remaining wetlands especially valuable to us — people, wild plants, and wildlife.

Wetlands are fascinating natural communities, well worth taking the time to explore. By protecting our marshes, swamps, bogs, and wet meadows, we help to preserve an essential part of our natural heritage and the wetland ecosystems which support so much life.