# Kawartha Nature Notes

## Introduction

This series of notes was started in 2016 to increase awareness of the natural heritage features of the area traversed by the Kawartha Nordic Ski Club trails. If you have comments, corrections, or would like to contribute content, please send an email to contact@kawarthanordic.ca with the header “Attention: Nature Notes Editor”.

## The Fisher

The Fisher Trail is named after an elusive mammal that is a member of the weasel family. Fishers have been sighted several times along this trail, so the name was chosen for more than symbolic reasons. The Fisher is about the size of a large house cat, but it has powerful jaws and a chocolate brown coat. Fishers prey on birds and smaller mammals, like Red Squirrel, Gray Squirrel, Snowshoe Hare and Porcupine. They do not eat fish. They are agile in moving around in trees, but also spend some time on the ground. Their habitat is typically mature mixed and conifer forest with proximity to water, such as found in the Peterborough Crown Game Preserve. Another arboreal predator, the Pine Martin, is more common in conifer forests further north, for example in Algonquin Park. The lush, dark-brown coat of the Fisher is highly prized by trappers and Fisher population numbers have fluctuated with the market price for its pelt, the availability of forest habitat and other factors. Fishers are primarily active at night but they can sometimes be seen during the day. On your next ski through the Game Preserve, slow down, look around and you may see the trail’s namesake.

Fisher (Photo by the Nature Conservancy of Canada)

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## The Landscape

The Kawartha Nordic trails cross both privately-owned land and Crown land. All of the Crown land is within an area designated as the Peterborough Crown Game Preserve. In such areas, no hunting or fishing is allowed. The Kawartha Nordic Ski Club has access to these public lands in the winter months through a land-use permit. We also have permits for each of the cabins that we maintain on Crown land.

This landscape is underlain by the Canadian Shield, ancient bedrock of volcanic origin dating from the Precambrian Era. The Nordic trails are situated just north of the contact line with the Ordovician limestone bedrock predominant in southern Ontario. The granite, gneiss and related rocks of the Shield are among the oldest rocks in the world, older than 570 million years. Occasionally interspersed with the granite, are examples of marbleized limestone that also date from the Precambrian era.

Peterborough Crown Game Preserve in autumn (Photo by M.J. McMurtry).

The topography is characterized by undulating ridges and troughs, with relatively warm, dry conditions during the growing season on the ridges and wet, cool conditions in the troughs. The uplands are dominated by Red Oak, Sugar Maple, White Spruce, Eastern Hemlock and Balsam Fir with an over-story of White Pine and an under-story of Ironwood. Shrubs such as Chokecherry, Alternate-leaved Dogwood and Leatherwood can be found. Typical plants in the groundcover of the uplands are Marginal Wood Fern, Bracken, Wild Columbine, Rough-leaved Mountain-rice Grass, Poverty Grass, Fringed Polygala and Wild Sarsaparilla. In more open areas, Bur Oak, poplars, White Birch, Common Juniper and raspberries are found. The troughs between the ridges are occupied by fens, bogs, marshes, swamps, rivers or lakes. Even in the winter you can recognize cattails, Red-osier Dogwood, Narrow-leaved Meadowsweet, Speckled Alder, American Elm, Freeman's Maple and Yellow Birch in the wetlands along the trails.

Portions of the land traversed by the trails have been harvested for timber. The wider trails that you are skiing on are actually forestry access roads. You will notice some areas of Crown Land where the trees are sparse after harvesting as well as clearings where logs have been piled up and trucked out. Several severe fires in the early 1900s also contributed to sparse forest and less productive soils. Modern forestry practice in the southern Shield area is to harvest a broad age range of trees. Then the forest can recover with seed from mature trees, shading is preserved and some dead trees and trees with stick nests are retained for wildlife habitat. Can you find areas that that have never been logged? They will have a moderate tree density, numerous old trees and abundant woody debris on the forest floor.

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## Wolves and Coyotes in the Kawartha Region

If you ski regularly on the Kawartha Nordic trails, you may have encountered the remains of a White-tailed Deer that has been preyed upon by wolves or related canids (members of the dog family). It can be an upsetting sight, but it is part of the natural system of predators and prey.

Eastern Wolf (©Queen's Printer for Ontario, 2014)

Ministry of Natural Resources and Trent University scientists have collected samples of hair, blood and scat (feces) of wolf-like canids in the Kawartha Highlands Provincial Park and the Peterborough Crown Game Preserve as part of a study to understand which species are present in the area and their genetic heritage. When the samples were analyzed, it turned out to be a complex situation, with most individuals showing mainly Eastern Wolf or Coyote ancestry, but also some that were hybrids, and some had a genetic contribution from Gray Wolf. It can be difficult to distinguish these species and hybrids by sight alone.

Coyotes are adapted to hunt in open habitat, and usually hunt as individuals. They are one of the few native mammals that have adapted well to areas of human settlement. Their diet is mainly small mammals, carrion (dead animals) and occasionally birds, White-tailed Deer and other items. Eastern and Gray Wolves are found in a variety of habitats in Ontario, including woodlands and rock barrens. They normally hunt in packs so they can take bigger prey such as White-tailed Deer, Moose and Caribou. Ravens, eagles, crows, jays and chickadees also feed on animals killed by wolves. The core of the Eastern Wolf population in Ontario is in Algonquin Park. Gray Wolves are more common further north and west in Ontario. Hybrids of wolves and coyotes could have traits that are well adapted to the conditions of the southern Shield, where there is a mix of open and forested habitats and a strong human presence.

Despite predation by wolf-like canids, White-tailed Deer are abundant in the Peterborough Crown Game Preserve, based on the prevalence of tracks and the number of sightings. Watch for wolf and coyote tracks and scat and evidence of predation along the ski trails.

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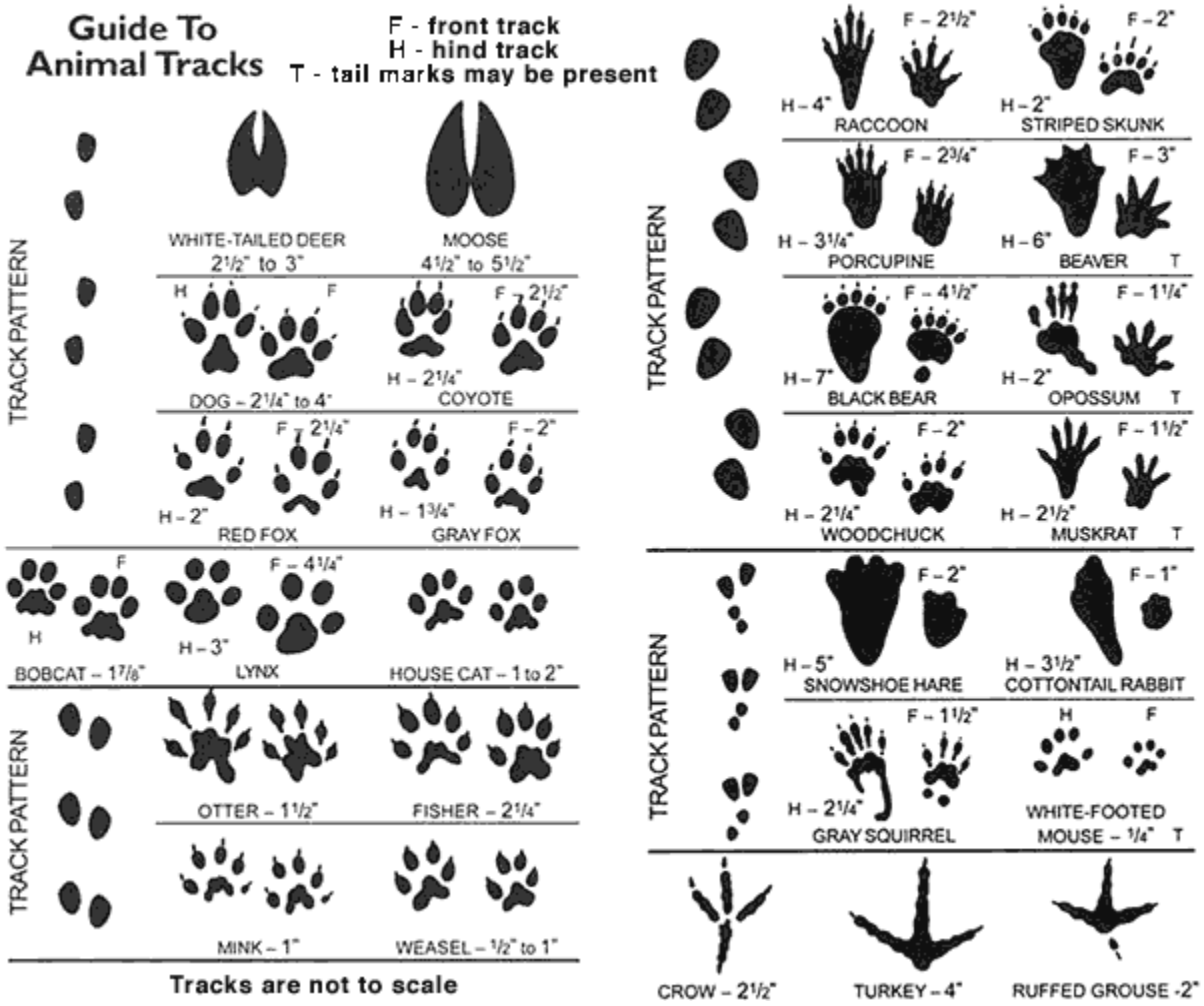
## Tracks in the Snow

If you ski the trails after a snowfall, you will see many different types of tracks of animals that dwell in the forests and wetlands of southern Shield country. One of the most common and easiest to identify is that of the White-tailed Deer, a species that thrives in the forest edges and open fields of southern Ontario. Other tracks that you might see are those of Snowshoe Hare, Red Squirrel, Red-backed Vole, Short-tailed Shrew, Short-tailed Weasel and Porcupine. Sometimes the movements of a Beaver or Otter can be traced next to a wetland or a creek. If you are lucky, you may even see tracks of a Fisher or wolf. Moose tracks have also been seen along the ski trails.

Many animals depend on a thick layer of snow for their survival during the winter. Voles, mice and shrews develop a network of tunnels under the insulating cover of snow where it is warmer than the air temperature due to the warmth coming from the earth's core. You will see the tracks of these animals where they emerge from their tunnels for a short time. Owls have superlative hearing and can sometimes hear the movement of small mammals under the snow. One of the most dramatic signs in the winter is where an owl has plunged into the snow for its prey with wings outspread. The diagrams below may help you identify the tracks that you see.



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## Birds Along the Kawartha Nordic Ski Trails

One of the favourite activities of skiers stopping at cabins along the Kawartha Nordic ski trails is feeding the birds. Some of the more gregarious species such as Black-capped Chickadee, White-breasted Nuthatch, Red-breasted Nuthatch and Blue Jay will pick up sunflower seeds offered from your hand or placed on a log. Gray Jay will occasionally be seen along the more northerly trails, but it has become less common than it used to be. There are many other species of birds that dwell in the forests and wetlands of the ski trail area. You may hear the raucous calls of the Raven and perhaps even see their acrobatic courtship display in late winter. Or you may hear the tapping of Downy, Hairy or Pileated Woodpeckers. The large rectangular excavations in dead or softwood trees are made by the latter species.

Within a week or two of Christmas each year, birders visit the trails to do an annual Christmas Bird Count. In addition to the species noted above, birders have observed Ruffed Grouse, Barred Owl, Brown Creeper, Cedar Waxwing, American Crow, Dark-eyed Junco, American Goldfinch and others. Species such as Ruffed Grouse and Barred Owl rely on the extensive woodlands found in this area. Many different bird species, called Neotropical migrants, dwell in this area in the summer months. These species breed and rear young in the Northern Hemisphere in the summer months and migrate to the tropics of the New World in central and south America for the winter months. Black-and-white Warbler, Black-throated Green Warbler, Scarlet Tanager and Wood Thrush are such species. If you visit this area in June, you will hear these species singing. Other birds such as Red-shouldered Hawk and Turkey Vulture move to areas further south where it is warmer and there is less snow cover, but they do not migrate all the way to the tropics. You are not likely to see familiar birds like Northern Cardinal and House Sparrow along the trails as they are birds that prefer urban and near-urban habitats.

Barred Owl (Photo by Noppadol Paothong, courtesy of Missouri Department of Conservation).

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## Sharpe Bay Fen

Located to the north of PL Road (north of the Tanney Cabin) is the Sharpe Bay Conservation Reserve. It was regulated as a Provincial Conservation Reserve in 2000. It is 636 hectares in size and was created to protect an excellent example of a wetland type not common in southern Ontario, a fen. Fens are characterized by the flow of mineral-rich ground or surface water. Quite often the vegetation is dominated by sedges or grasses, but fens can also be rich in other herbaceous plants, as well as shrubs and trees. They are water-soaked throughout the year, so they favour the development of mosses and the accumulation of peat. Bogs also have a thick layer of peat, but they have limited nutrient inputs and become quite acidic, and so support a lower diversity of plants. The Sharpe Bay fen is situated on extensive marble bedrock deposits, and supports large Black Spruce -White Cedar fen forests as well as Black Ash - Cedar swamps and open shrubby areas. It is the largest example of a fen in the eco-district.

Fen vegetation (Photo by Mike McMurtry).

The wetland portions of the conservation reserve are interspersed with rock barrens. These rock barrens are habitat for the province's only lizard, the Common Five-lined Skink. The southern Shield population of this species that has been designated as of Special Concern under the Endangered Species Act of Ontario.

The trail to and from the Bennet Cabin passes through the Conservation Reserve. Trapping on a registered trapline is permitted in the Nature Reserve but hunting is not. There has been some forest harvesting in the past but the management plan calls for the vegetation of this area is to develop and succeed naturally.

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## Peterborough Crown Game Preserve

While some of the Kawartha Ski Club trails are located on private land owned by the club, most of the trail system is on Crown land within the Peterborough Crown Game Preserve. The Game Preserve has a long history and has not been without controversy. The Preserve was established by Order-in-Council in 1933 (one report says 1927) on approximately 223 square kilometres of forested land near Apsley, Ontario. The Preserve was established to provide wildlife viewing opportunities in a natural environment setting, increase wildlife populations, and protect local wildlife populations in order to ensure an abundance of game for hunters in the adjacent area. It has been reduced in size twice since that time. In 1951, 4,700 hectares were removed from the Preserve, and another 2,200 hectares were removed between 1956 and 1967. It is now approximately 15,268 hectares in size (Crown Land Use Planning Atlas Policy Report G340/CGP6, 2006).

Most of the soils of the Preserve are classified as fine and silty sand and bare and shallow soil. Some small pockets may contain loam, silt, clay or organic soils (Crown Land Use Planning Atlas, 2016).

According to a local historical report, the Game Preserve was impacted by extensive forest fires in 1911, 1913 and 1917. The fires were so hot that much of the mineral soil was burnt off, leaving shallow, less-productive soils behind. Deer likely moved into the area as the forests regenerated after the fire to feed on the new growth.

There have been a number of wildlife management interventions over the years. An unsuccessful attempt was made to introduce Elk into the Preserve in the 1930s. Trapping of Beaver was allowed in 1965 in response to a perception that they were over-abundant. At one time there was a program of trapping wolves as they were perceived to be a threat to wildlife.

Hunting was not allowed in the Game Preserve until 1985 and 1986. After public opposition to the hunt, a governmental Environmental Assessment Advisory Committee found that there had been inadequate consultation prior to the hunt and that a scientific rationale for the hunt was lacking. The Committee observed that the stated goal of the Preserve was not consistent with allowing hunting within its boundaries and that a proper public consultation process would be advisable if the management purpose of the Preserve were to be changed. Hunting in the Game Preserve has been not allowed since that time.

Commercial forest harvesting has been allowed in the Game Preserve since the 1960s, and perhaps earlier. Cutting is generally done in the winter to minimize damage to the forest and make access through wet areas easier. Forest management practices are guided by the Forest Management Plan for the Bancroft-Minden Forest (available online).

Nature appears to be very resilient. Visitors to the Peterborough Crown Game Preserve today will observe that most of the Preserve is in a natural, semi-wild state and is recovering from the interventions of the past.