

Hiding in plain sight

Life is not easy on the Canadian Shield. Many species have adapted to the ever-changing environment by using their ability to blend into their surroundings, a process known as camouflage. Play this modified game of hide and seek to show the importance to wildlife of blending into the environment.

You will need some small pieces of paper of different colours (paint chips work well), a friend and a natural area such as a forest, field or park.

- Cut the paint chips or paper into small squares; two-by-two-centimetre squares work well. Use vibrant colours — purples, blues and oranges — as well as “natural” colours such as greens and browns. You and your partner will each need at least one sample of each colour, but having two or three of each will make the game even more fun!
- One player is the “hider” and the other is the “seeker”. The hider begins by trying to match the colour samples to things in the natural surroundings. Perhaps there are some bright blue wildflowers on which you can place your blue paint chip.

- Be sure to remember where you put all of your pieces! Your partner, the seeker, must now be a sleuth and try to find all of your camouflaged pieces of paper.
- When the seeker has found all the pieces or has given up, trade places. The seeker is now the hider.
- Which pieces were the hardest to find? Which were the easiest? Why would it be an advantage for an animal to be able to camouflage itself in its habitat?
- If it is a rainy day, you can still play the camouflage game inside. Try hiding your colour samples in the kitchen (no fair hiding them in the cupboards), living room or bedroom.



For more information about the Canadian Shield, check out these websites:

- <http://www.britannica.com/eb/topic-91992/Canadian-Shield>
- http://encarta.msn.com/encyclopedia_761578439/Canadian_Shield.html
- http://en.wikipedia.org/wiki/Canadian_Shield

Your local library will also have books and articles about the Canadian Shield.



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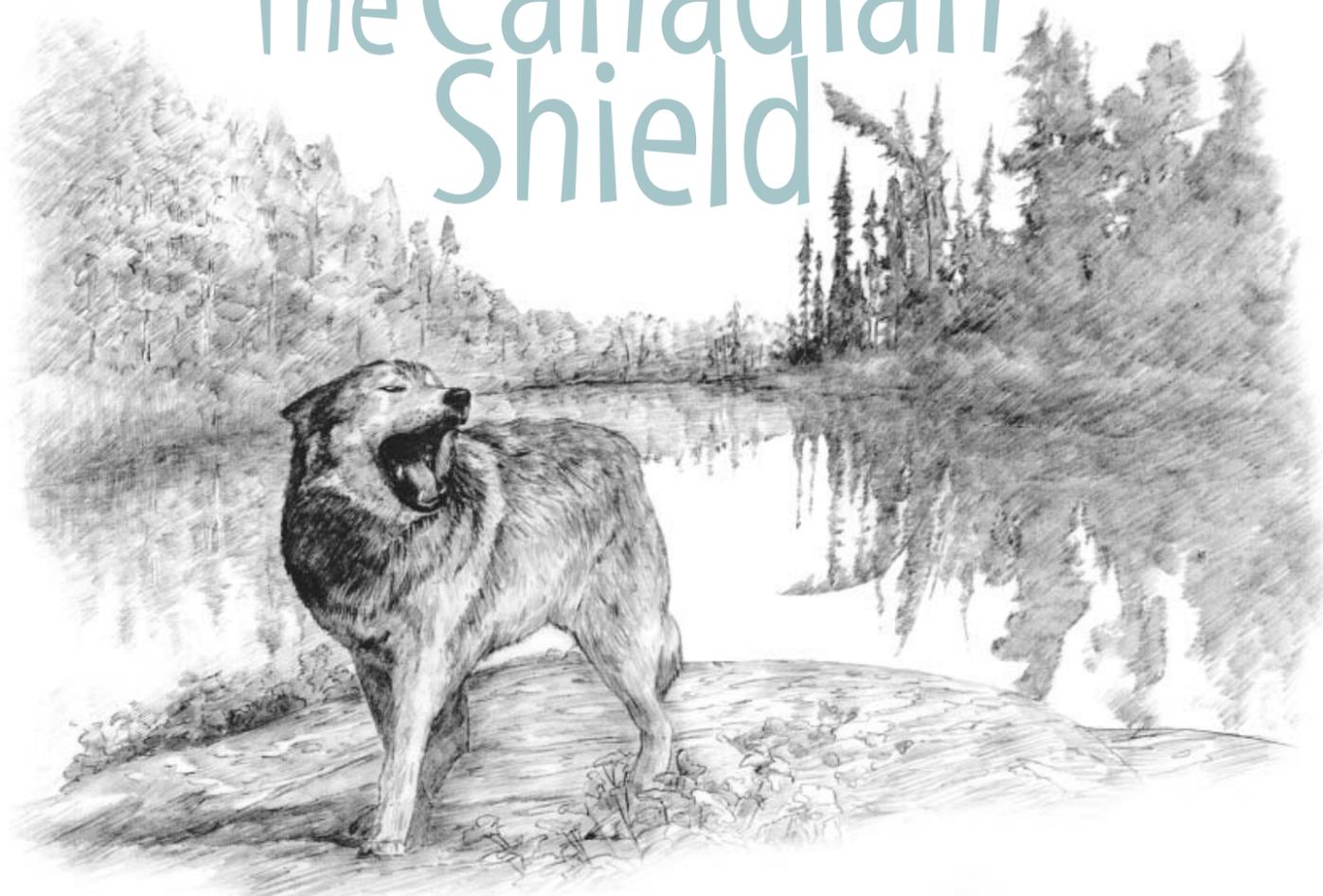
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For generations the rocky outcrops, sparkling blue lakes and dense wilderness forests of the Canadian Shield have shaped our identity as Canadians.

The Canadian Shield



Whether you call it the Canadian Shield, the Precambrian Shield or the Laurentian Plateau, this land mass covers nearly half of Canada, parts of the northern United States and nearly all of Greenland.

The Canadian Shield is part of the remains of an ancient and very large volcanic mountain range. Many people believe that it once resembled the present-day Himalayan mountain range in both size and structure. Over millions of years, water, wind and glaciers shaped the land into the rolling hills and rocky outcrops that we see today.

Only a very thin layer of soil covers most of the shield's bedrock. During the last ice age, about 15,000 years ago, advancing glaciers scraped the land. Acting like a giant bulldozer, topsoil and rocks were pushed hundreds or even thousands of kilometres from their original location, leaving

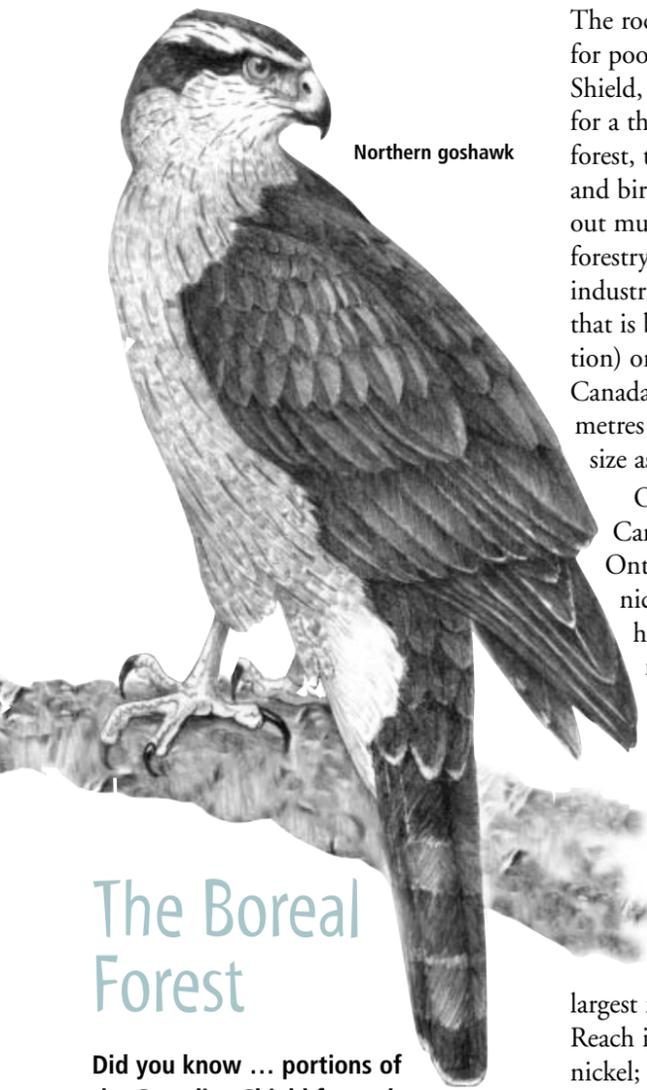


exposed rock, large depressions in the surface and very little soil. When temperatures began to rise and the massive glaciers melted, water filled these depressions, creating the lakes that we can still see today.

The Canadian Shield is rich in minerals such as iron, nickel, zinc, copper, uranium, silver, gold and platinum. As a

result, many thriving mining communities dot the landscape within this region.

Because the shield stretches a vast distance from north to south, its climate varies depending on location. In the north the temperatures are cold and the limited amount of soil is frozen for long periods. This soil is known as permafrost. The more southern Hudson Bay region has soggy soil and many wetlands, such as marshes and bogs.



Northern goshawk

The Boreal Forest

Did you know ... portions of the Canadian Shield formed nearly 4 billion years ago, which means that it contains some of the world's oldest rocks.

The rocky ground and thin soil make for poor agriculture on the Canadian Shield, but provide the ideal conditions for a thick coniferous and mixed-wood forest, the boreal forest. Spruce, pine, fir and birch trees can be found throughout much of the shield. As a result, forestry is one of the largest primary industries (a primary industry is one that is based on natural resource extraction) on the shield. The boreal forest of Canada is nearly six million square kilometres in size, approximately the same size as the Amazon rain forest!

One of the largest cities on the Canadian Shield is Sudbury, Ontario, home of the big nickel — a nine-metre high replica Canadian nickel. This area is believed to be the site where an asteroid that crashed to earth nearly two billion years ago. Nickel, copper and platinum are the main minerals found in asteroids, and this chance collision has made Sudbury one of the largest nickel producers in the world. Reach into your pocket and pull out a nickel; you are holding “alien” money!

Nature abounds on the shield and attracts both adventurers and tourists. Its rolling landscape and picturesque lakes and forests have inspired poets,

painters, such as the famous Group of Seven, and writers for centuries. Vacationers are attracted to the many secluded lakes and rivers — the perfect spot for cottages and resorts.

The shield's unique and varied landscape provides ideal habitat for many different plants and animals. The glacial lakes and wetlands are home to fish such as largemouth bass, muskellunge, (better known as muskie), sturgeon, rock bass and northern pike. Loons, turtles, salamanders, newts, otters, muskrats, herons, beavers and moose are also attracted to the watery habitats found on the shield. The boreal forest provides habitat for wolves, caribou, bears, deer and numerous other mammal species, as well as birds.



Unlike many lakes in southern Ontario, those found on the Canadian Shield are often crystal clear. The surrounding granite rock is very hard and does not dissolve easily in water. As a result, bacteria, algae and plankton cannot thrive because of a lack of nutrients, making the lakes sparkling clear.

Did you know ... fossils of bacteria and algae that are over two billion years old have been found on the Canadian Shield.

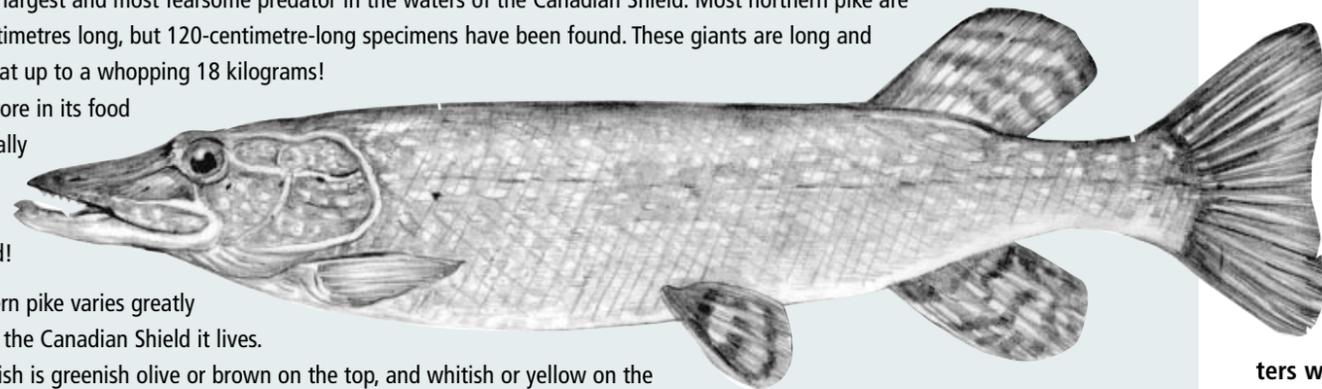
Northern Pike

The northern pike is the largest and most fearsome predator in the waters of the Canadian Shield. Most northern pike are between 45 and 75 centimetres long, but 120-centimetre-long specimens have been found. These giants are long and hefty, and can weigh in at up to a whopping 18 kilograms!

Since it is the top carnivore in its food chain, this predator usually lives about 12 years, but some have been found to be 26 years old!

The colour of the northern pike varies greatly depending on where on the Canadian Shield it lives.

Generally, though, this fish is greenish olive or brown on the top, and whitish or yellow on the underbelly, and has gold-tipped scales. Its body is sleek and streamlined, and its eyes are bright yellow. The pike's strong jaw and sharp, inward-facing teeth make it a formidable creature. This vicious predator feeds on frogs, ducklings, mice, muskrats and many species of fish.



Winter on the Shield

The winters on the Canadian Shield are long, cold and harsh. Many species have adapted to the changing seasons in unique ways.

Snowshoe hares and ermine use camouflage — changing colours to blend into their surroundings — to hide from predators. During the warmer months, these creatures are brown and so are difficult to see against a background of grasses and vegetation. In the winter, any brown creature would stand out against the snow, but then these species are ghostly white.

To escape the cold, many birds migrate to warmer climates during the winter. Many boreal mammals, amphibians, reptiles and insects hibernate, or sleep through the cold winter months.

Over the winter, these creatures live in burrows, dens, under tree bark or in other sheltered places. The snow that falls in the winter acts like a blanket, keeping the sleeping creatures warm and snug and out of the cold, bitter wind.

Did you know ... species such as hares and shrews have a higher survival rate in the winters when snow is abundant! It not only functions like a blanket, keeping them warm, but also hides their burrows from predators such as foxes and wolves.

Aboriginal People

The Athapaskan or Dene people, such as the Chipewyan, and Algonquians, such as the Ojibwe, Cree, Naskapi, Ottawa, Algonquin, Innu and Montagnais were the original inhabitants of the Canadian Shield.

Like the birds and mammals of the forest, many of these people moved to the more southern reaches during the most inhospitable months and travelled in search of caribou, moose or other sources of food.

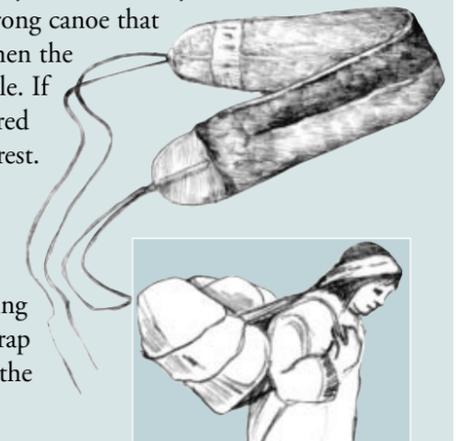
Although food was not always abundant for the Aboriginal people, with a little ingenuity they made do with a variety of food from different sources. They hunted and speared large mammals such as deer and caribou, and snared smaller mammals such as hares. The Ojibwe built fences of sticks and brush and placed them across a stream. These traps allowed water but not large fish to pass through. The women would dry and pound the fish meat and mix it with oil. This nutritious mixture, which stayed fresh for several months, was a winter staple when food was scarce.

The Iroquois and the Algonquin planted corn and pumpkins, and harvested wild rice, blueberries, choke cherries, sumac and wintergreen in some of the southern areas of the Canadian Shield, where small pockets of soil occur.

You probably only eat blueberries in your pancakes or muffins, but young Ojibwe and Cree children also used blueberries for medicinal purposes. The leaves were made into a tea to help cure headaches, and crushed leaves could be applied to wounds to help speed healing.

For travelling in the shield region, which had countless rivers, the Aboriginal people made canoes made from birch trees. They created a wooden frame from the lightweight wood and then stretched birchbark, which is pliable yet strong, over the frame. To waterproof the seams between pieces of bark, these people used either a “glue” they obtained from the bladder of the sturgeon, heated spruce gum or grease from one of the many mammals they hunted for food. The result was a lightweight but strong canoe that could be hoisted overhead and carried when the rivers were blocked or became unnavigable. If damaged, the canoe could easily be repaired using materials readily available in the forest.

Canoeists and adventurers today have the Aboriginal people to thank not only for the canoe, but also for introducing them to the tumpline. A tumpline is a sling for carrying a load on the back, with a strap that passes around the forehead, making the load more stable and therefore easier to carry.



By the 1700s, the abundance of furs, minerals and forests in Canada attracted the attention of many Europeans. Three hundred years later, the plentiful natural resources of Canada's largest landform still drive the economy of the area. Wild landscapes characterize the Canadian Shield, and it is home to intriguing mammals, birds, plants and insects. We must make sure that this wildness area remains a part of our protected natural heritage.