Kid's Korner

Canada's ski trails rest on ancient foundation

STE.-JOVITE, Quebec — From the air, Canada's Laurentian Mountains spread toward the horizon like a vast, crumpled blanket.

Bare knobs of granite push through the green canopy of trees. Lakes polished silver by the sun glitter in every direction. During the snowy winters, the forests stand out as though etched in charcoal.

Standing above it all is Mount Tremblant, which dominates the surrounding landscape, and each winter serves as a kind of beacon for thousands of skiers. Just an hour or two north of Montreal, the Laurentians offer a choice of 30 major ski centers with vertical drops of as much as 2,300 feet.

Continent's First Tow

Special attractions for skiers are a tradition in the Laurentians, where the first rope tow in North America began hauling the hardy as early as 1932. Set up in the small town of Shawbridge, the tow operated through a system of pulleys put in motion by one of the wheels of a four-cylinder Chrysler perched on blocks.

It cost 25 cents a tow, but a public clamor eventually forced the entrepreneur to offer unlimited rides for two dollars a day. When the spring thaw set in, the car was taken off the blocks to double as the town's taxi.

"Nowadays, it's mainly the variety of the terrain that attracts people to the region," says Real Charette, who directed the snow Eagle Ski School near Ste.-Jovite for 35 years. "The intermediate slopes are ideal for family skiing and for teaching beginners, but there's enough height in the mountains to create difficult runs for advanced downhillers."

Like Charette, many of the instructors impart a certain Gallic elan with their lessons. French is heard as often as English on the slopes, and it's easy to imagine that one is skiing in the French Alps or Switzerland rather than North America. This illusion is heightened on a snowy evening in the region's small skiing communities, with their log chains, chalets, and brightly painted wood-frame houses.

The thousands of skiers attracted to the Laurentians each year may not realize it, but they're schussing over some of the oldest rocks in the world.

"Some of the rocks may be 2.5 billion years old, but they were reworked in a new mountain-building process about 1.1 billion years ago, which makes them appear younger," says Dr. Jacques G. Martignole, a University of Montreal geologist. "Two subcontinents may have collided around that time. The result may have been a towering mountain range just north of the St. Lawrence River. The mountains have eroded through the eons."

Lava Worked Upward

Probably as a result of this collision, molten rock from as deep as 100 miles below the earth's surface rose and worked itself into the crust, where it solidified to form large bodies of rock called plutons.

"Plutons of anorthosite rock are commonly referred to as black granite," says Martignole. "Banks up here use it a lot in their interiors and exteriors. It gives them a dignified look."

About 70 percent of the anorthosite plutons in the world are found in Canada, and roughly 30 percent are clustered in eastern Quebec, he estimates.

The largest anorthosite pluton in Laurentian ski country is around Ste.-Agathe-des-Monts. Roughly circular, it covers about 1,600 square miles. Another pluton in the Lac Ste.-Jean region covers about 8,000 square miles, says Martignole.

Concentrations of plutons and much older rocks appear north of the Laurentians, which form the southeastern edge of the immense Canadian Shield.

Sometimes called the Laurentian Highlands, the shield covers 2 million square miles of Canada and the Upper Midwest of the United States. Its ancient core of Precambrian rock — called a shield because of its shape and long stability — forms the heart and foundation of the North American continent.

The shield is so complex that a century of careful study has revealed only a broad outline of its structure. In the heart of other mountain ranges, pioneering geologists saw rocks like those exposed on the shield. These rocks suggested to them that shields may be the worn-down cores of old mountains.

Reduced By Weather

Rain and snow, freezes and thaws, torrents and glaciers reduced the mountaintops. As a result, rocks that had been subjected to heat and high pressure deep within mountain ranges became exposed. These are dismembered parts of the shield.

"Rocks more than 3.5 billion years old have been found in the northeastern part of the shield on the Labrador coast," says Anthony Davidson, a research scientist with the Geological Survey of Canada.

The shield has a lot more to offer than old rocks. Besides being the source of valubable minerals, its surface supports vast areas of commercial timber. And most Canadians can escape into this region of forests, lakes, and ski slopes by traveling less than 100 miles.

SNOW NAME GAME

Lots of animals have the word *snow* as part of their names. Using the clues in the poems, can you guess who they are?

I'm from a land that's so far north
In summer there's no night,
My eyes are round and golden
And my feathers are all white
You'll see the lemmings leaping
When they know I'm on the prowl
But few escape the talons of
A great big snow _ _ _ _ _

My spotted coat is thick and warm
My nickname is the ounce
I'm very quick and graceful
As from rock to rock I pounce
I live in Asian mountains
And though I may scare a shepherd
I feast on wild sheep and goats
Did you guess me?
Snow _ _ _ _ _ _ _ _ _

You've often seen me pictured
In a pool all steamy-hot
'Cause when the water's freezing
That warm water hits the spot!
So though the other animals
Might think I'm somewhat funky
It's the best way to survive
If you're a Japanese snow _ _ _ _ _ _ _

My flocks fly overhead in Vs
My voice is like a horn
I stop to rest in marshes
Or in stubble fields of corn
I fly north in the springtime
But when autumn winds cut loose
I head back south quite quickly
Where there's food for a snow

My name comes from my great big feet
That help me cross the snow
(And I need help for bobcats chase
Me everywhere I go!)
I'm often called a rabbit
And while some folks wouldn't care
I'd rather that you call me
By my real name snow

Now I'm a mystery creature
That I know you're sure to get
I'm said to haunt the mountains
And the valleys of Tibet
My footprints show up all around
Come find me if you can
Oh wouldn't it be neat to see
The _ _ _ _ _ _ _ _ _
Snow _ _ _

Answers Abominable Snowman, snowshoe hare, snow goose, snow monkey, snow leopard, snow leopard, snowman

COLOR THIS!

1.	BLACK	6.	ORANGE
2.	PEACH	7.	GREEN
3.	YELLOW	8.	LT. BROWN
4.	BLUE	9.	LT. BLUE
5.	BROWN	10.	LT. GREEN

THE YELLOW SHAFTED FLICKER IS THE GREATEST ENEMY OF THE WOOD-BORING INSECTS WHICH ATTACK OUR TREES. ITS ROLLING TATOO DRUMMING ON A HOLLOW LIMB AND ITS RAPID CUH-CUH-CUH REPEATED IN RAPID SUCCESSION ARE HEARD IN THE SPRING. THE FLICKER'S NESTING HOLE IS FOUND IN TREES.