

Expedition 60: The Subarctic

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Expedition 60: The Subarctic



Written by Celeste Fraser

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Glossary

aurora borealis (<i>n.</i>)	the northern lights, caused by charged particles being pulled into Earth's atmosphere by Earth's magnetic field (p. 14)
canals (<i>n.</i>)	waterways dug across land that are used for transportation or irrigation (p. 11)
hemisphere (<i>n.</i>)	half of the Earth, divided north and south by the equator or east and west through the poles (p. 4)
inlet (<i>n.</i>)	a narrow strip of water that leads from a body of water into land (p. 7)
latitude (<i>n.</i>)	distance in degrees north or south of the equator (p. 4)
solstice (<i>n.</i>)	either of the two times of the year when the Sun is farthest from the equator (p. 6)

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Front cover: The northern lights dance in the sky over a cabin near Fairbanks, Alaska.

Back cover: A young Sami girl leads a group of sled reindeer in northern Norway.

Title page: A cow moose stands in Wonder Lake in Denali National Park and Preserve in Alaska.

Teacher's note: This book is part of the Trip on a Latitude Line series of books on geography and exploration.

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Native people and visitors enjoy a blanket toss in Kotzebue, Alaska.

Summing Up Your Trip

I hope you enjoyed our summer trip to 60 degrees north latitude. The temperatures were warm, and the days were long. That's because the Northern Hemisphere is tilted toward the Sun during summer, which extends the time between sunrise and sunset.

The four countries you visited on this trip have very different cultures. But in each location, people celebrate the summer solstice, the day of the year with the most sunlight.

One nice thing about visiting the subarctic region during the winter months is that you can sometimes see the *aurora borealis*, or northern lights. These natural displays of light in the evening skies are caused by powerful electrical discharges high in the atmosphere. In southern latitudes, this display is known as the *aurora australis*.



The northern lights brighten the night sky.



Girls try out new winter boots at a boot factory near St. Petersburg, Russia.

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At 60 degrees north latitude, the summers are short, and the winters are cold. Can you find where the labeled locations are mentioned in this book?

Introducing 60 Degrees North

Welcome aboard for a flight around the world at 60 degrees north **latitude**. We'll be traveling over the subarctic region, the area south of the Arctic Circle. The subarctic is known for its long, cold winters and its short, cool summers. Unlike our previous trips, this trip won't include a visit to the same latitude line in the Southern **Hemisphere**. That's because at 60 degrees south latitude, there are no airports—because there is no land!

Because they are all near large bodies of water, the four cities you visited are still much warmer in winter than towns located farther inland. Away from the coasts, winter high temperatures average only about 5 degrees Fahrenheit at this latitude. Winters are so long and cold that, in some places, the ground never completely thaws during the short summers, resulting in permafrost. Permafrost makes construction of roads and buildings very difficult.



These telephone poles are tilting because the permafrost beneath them is melting.



Traveling by dogsled in Anchorage, Alaska

The Same Trip in Winter

If you were to travel to these same cities on the winter solstice (December 21 in the Northern Hemisphere), you would experience very different conditions. The winter solstice is the shortest day of the year. At that time of year, places along this latitude get only about five hours of daylight per day, and it's dark and cold. High temperatures in coastal cities are in the 20s (Fahrenheit).

Subarctic Safari

Mountains in the subarctic sometimes contain glaciers—giant sheets of ice that have built up over hundreds or thousands of years. The subarctic is home to animals such as bears, wolves, caribou, and moose. The inland areas of continents at 60 degrees north are often covered with huge evergreen forests known as taiga (TIE-guh). The trees in these forests must withstand temperatures as low as -40°F (-40°C) in the winter. But our trip will take place in June—summertime in the Northern Hemisphere—when temperatures are warm, and daylight is plentiful.



Mendenhall Glacier is one of southeast Alaska's most popular tourist attractions.



Anchorage is the northernmost major city in the United States.

Anchorage, Alaska

We start in Anchorage, Alaska (61 degrees north latitude), just in time for the Summer **Solstice** Festival on June 21. The summer solstice is the longest day of the year. On that day each year, Anchorage gets about nineteen hours of daylight.

Do You Know?

The Arctic Circle is an imaginary circle around Earth at about 67 degrees north latitude. The Arctic Circle marks the southernmost boundary of the area where the Sun doesn't set at all on the summer solstice.



St. Petersburg is sometimes called the "Venice of the North" because of its many beautiful canals.

St. Petersburg, Russia

We fly east to St. Petersburg, a city of natural and human-made **canals**. It was founded by Peter the Great, a Russian czar, or ruler, in the 1700s. The land that spans the banks of the Neva River and Finsky Bay was originally swampy, but Peter the Great changed all that. He had canals built and the swampy areas filled in with soil. In June, people celebrate White Nights by taking all-night walks along the city's canals and many drawbridges.

Helsinki, Finland

You arrive in Helsinki at 60 degrees north latitude just in time for Nightless Night, when bonfires are set to mark the summer solstice. Since the Sun doesn't set until almost 11:00 PM, you have plenty of time to tour the sea fortress called Suomenlinna before it gets dark. The fortress was built by Sweden in the 1700s to guard access to the Baltic Sea. It was later conquered by Russia, Finland's neighbor. Today, the fortress is again part of Finland. As you tour its grounds, you can see old cannons and learn about its history.



Afterward, you visit several outdoor cafes to enjoy the mild summer weather.



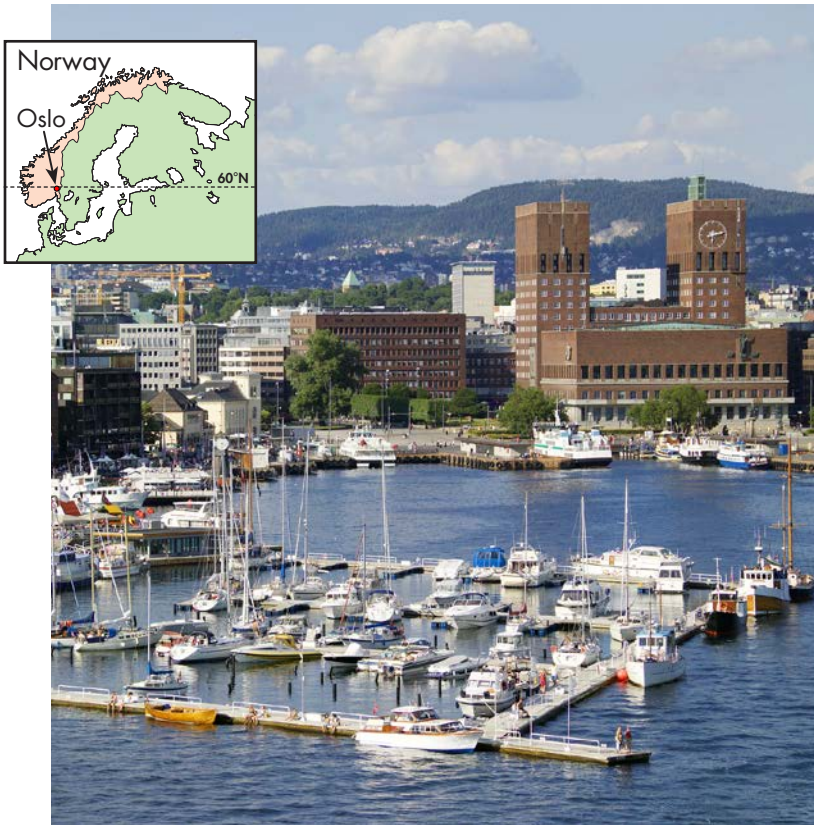
The sea fortress of Suomenlinna is built across six islands.



Artificial lights are never used at this annual baseball game, even though play starts at 10:30 PM and often lasts until 2:00 AM.

Anchorage is located on Cook **Inlet**, a narrow channel on the Gulf of Alaska. Because it's near water, Anchorage has a milder climate than other places farther inland. Large bodies of water keep places warmer in winter and cooler in summer. High temperatures in Anchorage average 65 degrees Fahrenheit in summer and 20 degrees in winter.

Friends advise you not to miss the Goldpanners' baseball game in Fairbanks, a city 360 miles to the north. The game is played late at night without artificial lights at the Midnight Sun Festival!



Boats and ships lie at anchor at the harbor in Oslo, Norway.

Oslo, Norway

Flying east to northern Europe, we land in Oslo, Norway, on an inlet on the North Sea. A warm ocean current, the North Atlantic Drift, keeps temperatures in the city fairly mild for its latitude at 60 degrees north. Temperatures can reach 70 degrees Fahrenheit in summer and the mid-20s in winter.

A visit to Oslo wouldn't be complete without a visit to the Viking Ship Museum. Vikings were seafaring people who lived in this region about 1,000 years ago. With sturdy ships and good sailing skills, they traveled throughout coastal Europe, Iceland, and Greenland, even reaching North America.



This Viking ship was found in a large burial mound in Norway.



Children in Oslo, Norway, celebrate Constitution Day by wearing traditional clothing and carrying flags.