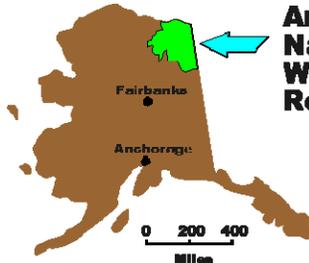


# Introducing the Arctic National Wildlife Refuge

The Arctic National Wildlife Refuge is located in the Northeast corner of Alaska and with a range of nearly twenty million acres is the largest wildlife refuge in our country's public lands system. The term "public lands" encompasses national



Map Courtesy of Fish & Wildlife Service

distinct ecological zones and contains the largest variety of plants and animals of any conservation area in the Arctic.

parks, national forests, wildlife refuges and all other land owned by the federal government to be managed and maintained for everyone's benefit.

Spanning 200 miles from its southern border to the Arctic Ocean, the Arctic National Wildlife Refuge contains six

## By the Numbers

- The Arctic National Wildlife Refuge is **19.6 million acres**. This is approximately the size of South Carolina. **CLASSROOM ACTION:** have your students use other well known areas to compare the size of the Refuge.
- More than **250** animal species rely on the Refuge's diverse habitats. **CLASSROOM ACTION:** once the students have located where the Refuge is, see how many animals they can name that call this area home.
- Members of the Porcupine Caribou herd, which give birth on the Coastal Plain of the Refuge, can travel over **3,000** miles during their annual migration. **CLASSROOM ACTION:** students can plan trips to see how far 3,000 miles will get them.
- The average temperature at the Refuge during July is **41 degrees F** and **-4 degrees F** during February. **CLASSROOM ACTION:** what are the averages temperatures for these months where you live?

## The Arctic Ecosystem

The Arctic is defined as the region of the world north of the Arctic Circle, which is a line of latitude which runs 66 degrees north of the equator. The land contained in the Arctic is located in eight different countries: Russia, Canada, Sweden, Norway, Greenland, Finland, Iceland, and the United States (Alaska). The large remaining portion of the Arctic is an ever changing system of sea ice and open water. The Arctic region supports a wide range of ecosystems from mountain peaks, vast plains, tundra and lagoons and despite the extreme climate is actually one of the most biologically productive regions in the world. Home to some of the worlds harshest conditions, the Arctic often sees temperatures dip below -30 to -40 in the winter when the sun stays below the horizon for months. During the summer, mild temperatures and long periods of daylight make for a fast but productive growing season for the many different plant species native to the Arctic. Another unique feature of the Arctic ecosystems is the presence of permafrost. Permafrost is soil which is below the freezing temperature of water and is extremely difficult to penetrate (jackhammers are frequently used by scientists studying this layer) with a small layer of thawed soil at the surface in which the plant life grows.



## Why the Arctic National Wildlife Refuge is so special

There are over 500 wildlife refuges throughout the country which make up the National Wildlife Refuge System and while they are all important, the Arctic National Wildlife Refuge is one of the systems crowning jewels. The Arctic National Wildlife Refuge is our nation's largest wildlife refuge and contains the greatest variety of plant and animal life of any protected area within the Arctic Circle. The remoteness of the Refuge has also helped to protect its beauty and keeps it one of the most wild and undisturbed areas within the United States. With no roads in or out, the only way people are able to get to the Refuge is by bush plane or rafting on the river.

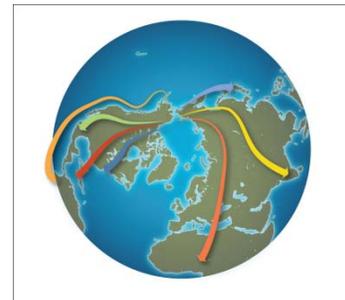
The animals of the Refuge also contribute to the uniqueness of the area. All three species of bear: brown, black and polar can be found within the Refuge.



Images courtesy of U.S. Fish & Wildlife Service

In addition to the bears, many other mammals call the refuge home, including the ancient musk ox. Once extinct from Alaska due to over-hunting, the musk ox was reintroduced to the Arctic Refuge where they now maintain a healthy population. With heavy insulated wool coats, musk oxen are able to brave the frigid winter temperatures and live year long in the Refuge.

While the musk ox stay all year long, the Refuge is also home to thousands of migratory birds and water fowl during the spring and summer months. Birds from every state migrate to the Refuge each spring to breed and raise their young. As fall sets in on the Refuge, these birds head south and can be spotted in backyards and fields, a true illustration of how we are connected to this wild place. The Refuge is also used by migratory birds that travel to and from 6 out of the 7 continents (Europe being the lone exception,) making it an international wildlife destination.



The history of the refuge is about its unique wildlife, wilderness, and recreational values. These features provide many fantastic learning opportunities for you and your class. The supplemental materials to follow will further explore these learning opportunities as well as provide activities you can share with your class.