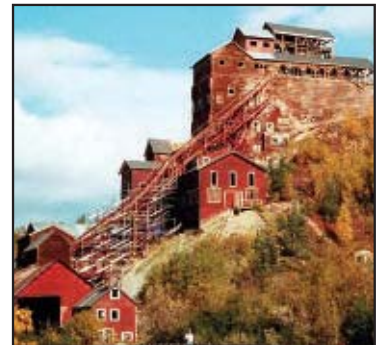


# K'elt'aeni

VISITOR GUIDE



Visitor Centers.....4



Kennecott.....9



Wildlife.....17



## K'ELT'AENI

The name *K'elt'aeni* (pronounced keltawny) is the Ahtna Athabaskan word for Mount Wrangell, the only active volcano in the Wrangell Mountains. *K'elt'aeni* does not translate well into English, but Ahtna speakers tell us that it means “The One That Controls”—the one that controls the weather.

## CONTENTS

### PLACES TO GO

Park Visitor Centers.....	4
Something for Everyone.....	5
Road Travel.....	6
McCarthy.....	8
Kennecott.....	9

### ACTIVITIES

Hiking.....	11
Backcountry Travel.....	14
Cabins.....	15
Watching Wildlife.....	17

### INFORMATION

Park Map.....	12
Bear Safety.....	16
Gateway Communities.....	22
Planning Your Trip.....	23

### FEATURES

Forces of Change.....	18
Climate and Landscape.....	19
Native Connections.....	20
Park Research.....	21

## K'ELT'AENI

Park Coordinator Tom Vandenberg

Designed and Produced by



Alaska  
Natural History  
ASSOCIATION

### Contributors

Geoff Bleakley, Megan Brokaw, Smitty Parratt, Vicki Penwell, Devi Sharp, Vicki Snitzler, and Tom Vandenberg.

All photos and maps courtesy of NPS unless otherwise noted. Special thanks to the Rasmuson Library at UAF for the photograph on page 20 from the Francis Pope Collection. Other photo credits: J. Connolly pages 11, 19, cover; A. Koltiska back cover; J. Parker p. 3; L. Penwell p. 6; M. Quinton pages 16, 17.

Printed on recycled paper using soy-based inks.

The *K'elt'aeni* is published by the Alaska Natural History Association in cooperation with Wrangell-St. Elias National Park and Preserve. It is funded by revenue from Association outlets.

©Alaska Natural History Association

# WELCOME



Welcome to Wrangell-St. Elias National Park and Preserve. We are pleased that you have chosen to visit one of America's greatest treasures. At over 13 million acres, Wrangell-St. Elias is the largest unit in the National Park System.

Here, you have an opportunity to experience wilderness on a scale above and beyond anything you may be used to. Mountains loom larger than life, massive glaciers redefine your sense of scale, ice-fed rivers rage to the sea, and entire, intact ecosystems function as they have for millennia.

Far from the hustle and bustle of other Alaska destinations, the magnificent scenery and untamed nature of this park allow you to experience genuine "Wild Alaska" on its own terms. Your possibilities here are endless. Whether immersing yourself in the colorful history of Kennecott, floating a raging river, crossing a glacier, driving one of the park's primitive roads, overwhelming your senses on a scenic flight, or charting your own backcountry trek, the park is ready for those willing and prepared to enter it.

Access and services here may seem very limited when compared to traditional national parks you may have visited in the Lower 48. What the area may lack in services, it more than makes up for in friendly people and uncrowded wilderness. The *K'elt'aeni* Visitor Guide was created by park staff to help you plan a visit and navigate around your park. With some effort and careful planning, you will find that your first visit here may mark the beginning of a lifetime of exploration.

Please travel safely in this "Great Land." I know that you will find your visit to Wrangell-St. Elias National Park and Preserve to be the experience of a lifetime.

Jed Davis  
Superintendent

## WORLD HERITAGE SITE

Wrangell-St. Elias National Park and Preserve has been recognized by the United Nations as a World Heritage Site. It shares this designation with three contiguous areas including Glacier Bay National Park and Preserve in Alaska, Tatshenshini-Alsek Provincial Park in British Columbia, and Kluane National Park in the Yukon Territory. Together these four units include 24.3 million acres, one of the largest internationally protected terrestrial ecosystems on the planet.





## PARK VISITOR CENTERS

Wrangell-St. Elias National Park and Preserve has various visitor contact points. Each of these facilities is staffed by professional interpretive park rangers who can assist you with a variety of services. In many cases, these rangers are longtime residents of the area. Their first-hand knowledge of the park is a great asset to you as you plan activities and learn about the special, unique features of the area.



## JUNIOR RANGERS

Hey kids! If you are between the ages of four and twelve, you can become a Wrangell-St. Elias Junior Park Ranger! Stop by one of the visitor centers in the park or ask any ranger for the Junior Ranger Activity. Complete the activity and earn your own badge. If you cannot visit the park in person and you have internet access, you can become a Web Ranger. Visit [www.nps.gov/wrst/JrRanger.htm](http://www.nps.gov/wrst/JrRanger.htm)

### Wrangell-St. Elias National Park and Preserve Visitor Centers

Name	Wrangell-St. Elias National Park and Preserve Visitor Center 907-822-7440	McCarthy Kiosk	Kennecott Visitor Center 907-554-2417	Slana Ranger Station	Yakutat Visitor Center
Location	Mile 106.8 Richardson Highway (between Glennallen and Copper Center)	Half-mile before the end of the McCarthy Road.	Historic Kennecott Train Depot Building	Mile .2 Nabesna Road	Yakutat
Activities	Exhibits, films, ranger programs, bookstore, and one-mile interpretive trail	Maps and information	Exhibits, films, and ranger programs	Exhibits, information, and ranger programs	Exhibits, information, and trip planning
Details	Summer: Daily Winter: Mon-Fri	Summer Only	Summer Only	Summer: Daily Winter: call for hours	Summer Only

Call 907-822-7440 for visitor center hours and information



## SOMETHING FOR EVERYONE



### THINGS TO DO

There really is something for everyone in Wrangell-St. Elias National Park and Preserve. For the history buff, there is the Kennecott Mines National Historic Landmark or the Chisana-Gold Hill Historic Mining Landscape. Hiking and backpacking opportunities cover a wide range of terrain and difficulty. Raft trips down the many rivers are an exciting way to see the park. Mountaineers find some of the tallest peaks and most challenging conditions in North America. There are places to take your camper or tent and enjoy a few days away from it all. Bird watching, flightseeing, and photography are all popular park activities.

Many visitors choose to hire guides for river rafting, hiking, glacier trekking, hunting, and fishing. Some backcountry travelers use air taxis to access remote areas and to avoid dangerous river crossings and wet terrain.

The National Park Service and the State of Alaska manage the wildlife resources of the park and preserve cooperatively. A fishing and hunting license is required for all hunters and anglers age 16 or older. Sport hunting is allowed in the preserve only. Subsistence hunting and fishing by local, rural residents is allowed in the park and preserve.

Motorboats, airplanes, and snowmobiles may be used in the park without permits. All-terrain vehicles are allowed on established trails with a permit. There is no charge for the permit and they are available at the visitor center in Copper Center or at the Slana Ranger Station.

### HOW TO GET THERE

There are two roads into the park: the McCarthy Road (58 miles) and the Nabesna Road (42 miles). Visitors can drive the McCarthy Road or take a shuttle bus from Glenallen, Copper Center, or Chitina. A flightseeing trip from Chitina to McCarthy is another excellent way to access the park.

Yakutat is served by commercial air service and the Alaska Marine Highway, and is a takeoff point for many visitors to the southern, coastal area of the park. Air taxis, a small boat harbor, and guide services are all available. Ocean kayaking and whale watching are just two of the opportunities park visitors can take advantage of while in Yakutat.





## NABESNA ROAD

A drive on the 42-mile long Nabesna Road is much the same today as it was when it was built by the Alaska Road Commission in 1934 to connect Nabesna Mine to the port in Valdez. Today, Nabesna Road provides access to the northern part of the park offering the chance to experience true Alaska wilderness.

Before beginning your trip, stop at the Slana Ranger Station to check on current road conditions and to pick up a *Nabesna Road Guide*. Generally, the road is passable by any two-wheel drive vehicle, even most RVs. At times, high clearance and four-wheel drive are recommended beyond Mile 29, where you encounter the first of three creek crossings. Following spring runoff or a heavy rain, these intermittent stream crossings can have high water and deep channels.

On the road, you will find primitive campsites, lakes and streams for fishing, hiking routes, and opportunities for wildlife and bird watching. But you won't find many people, so if you like taking the road less traveled, Nabesna Road may be right for you.

## MCCARTHY ROAD

The McCarthy Road begins at Chitina and follows the abandoned railroad bed of the Copper River and Northwestern Railway. Your adventure begins as you cross the Copper River at its confluence with the Chitina River and continues for 58 miles.

McCarthy Road is gravel and narrow in places. Some of the twists and turns of the road along with one-lane bridges make maneuvering long vehicles difficult. RVs or vehicles pulling long trailers are not recommended beyond Mile 17. Rain can make the road muddy and slippery, and sharp rocks and 90-year-old railroad spikes puncture the occasional tire. There are shuttles and air taxis that provide transportation to McCarthy and the end of the road.

The road ends at the Kennicott River, a half-mile short of McCarthy and five miles short of the Kennecott Mines National Historic Landmark. Public parking is limited but additional parking is available from private vendors. Cross the foot bridge over the Kennicott River, then continue on foot, by bicycle, or shuttle bus.

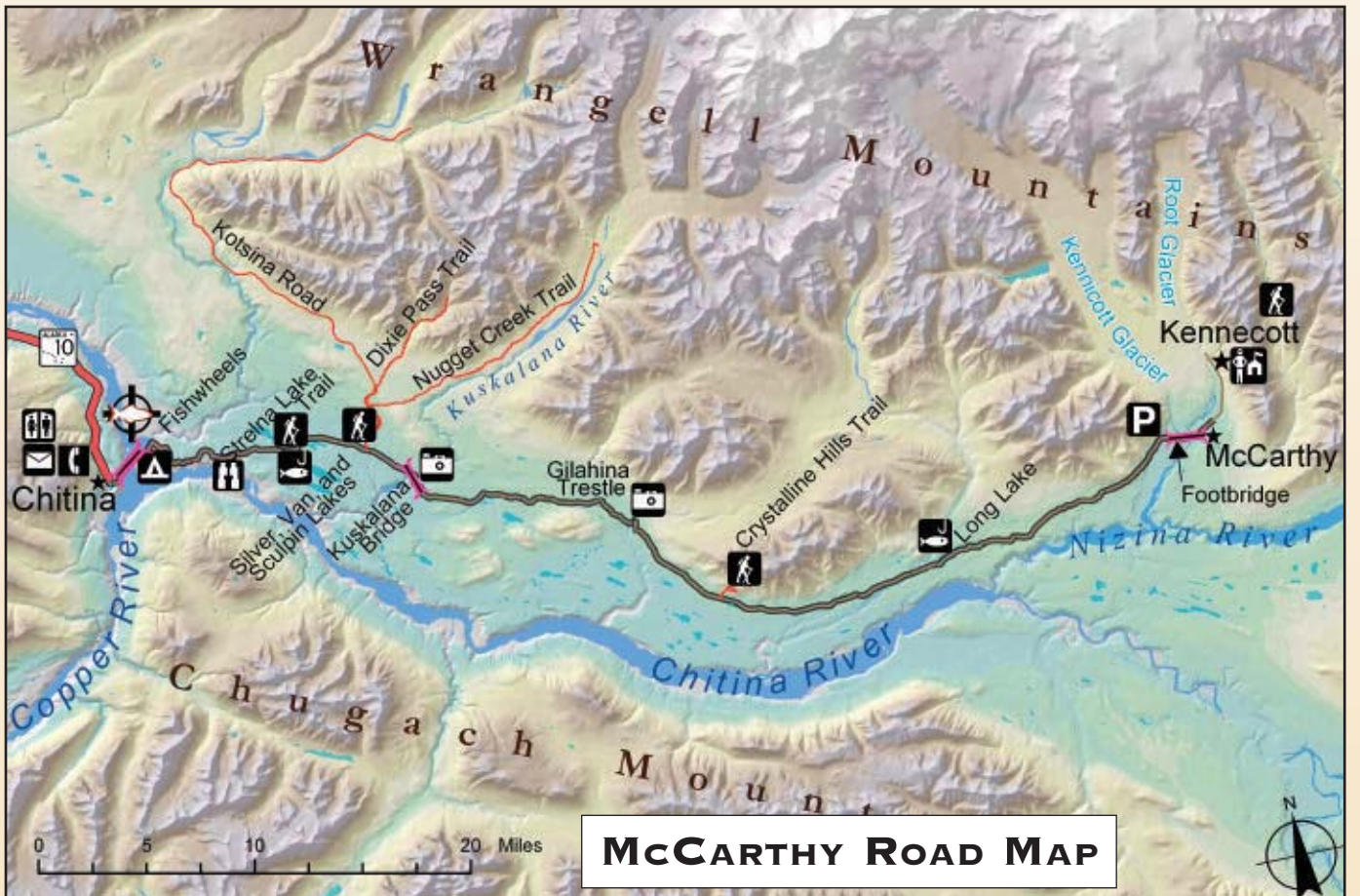
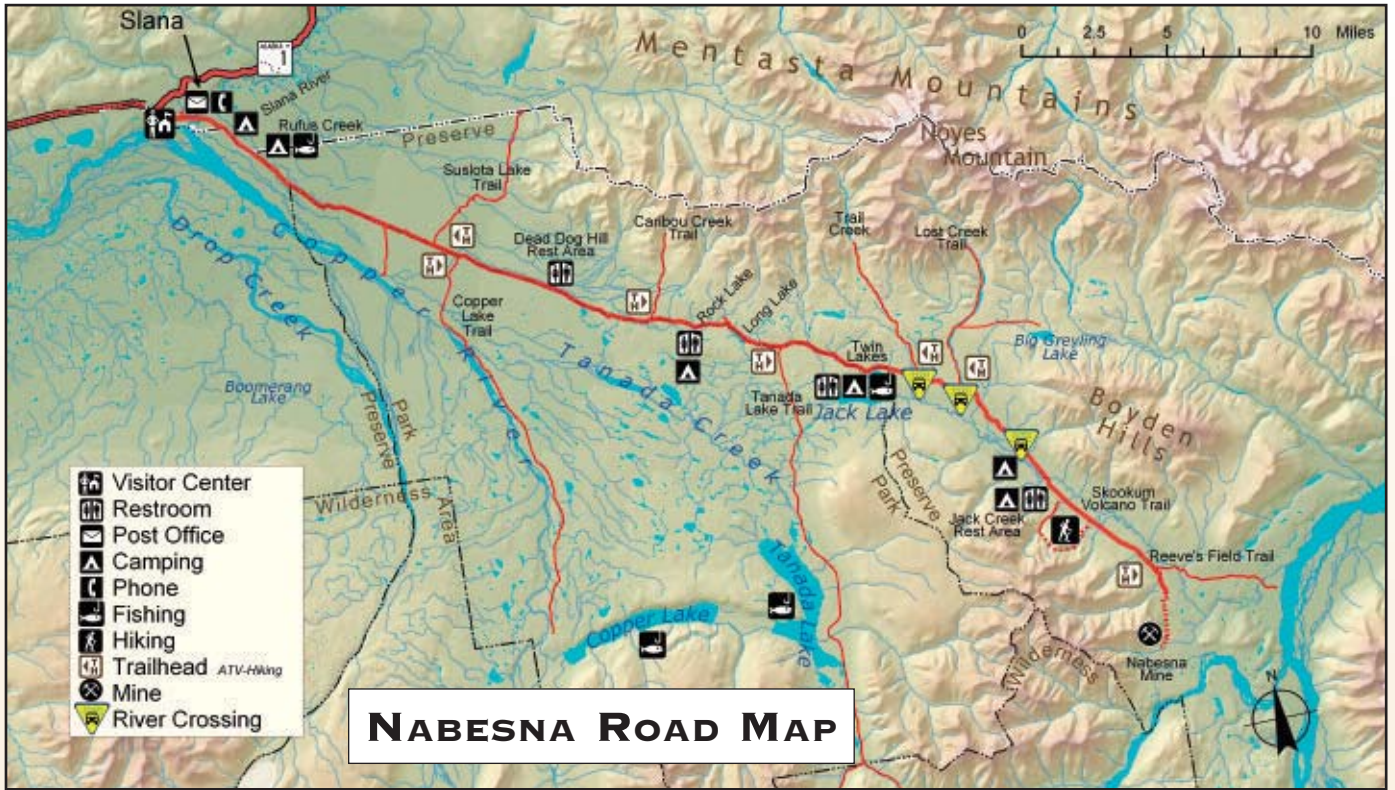
## TRAVEL TIPS

### NABESNA

- Check at the Slana Ranger Station for current road conditions.
- Fuel and repair services are not available after leaving Slana.
- This is a remote area with limited services.
- Have at least one full-size spare tire in good repair.
- Please respect private property.

### MCCARTHY

- The last gas is in Chitina.
- There are restaurants but no grocery store.
- Have a full-size spare tire in good repair.
- There are no ATMs.
- Some businesses do not accept credit cards or checks.
- Please respect private property.



## McCARTHY: JOHN BARRETT'S GAMBLE

---

John Barrett knew that the new railroad under construction in Kennecott would need to go around Kennicott Glacier. He thought that it would have to go over a strip of land sandwiched between the glacier and the mouth of McCarthy Creek. So in 1906, he staked that piece of land for a 296-acre homestead. His gamble paid off and by 1908 McCarthy had grown into a lively community. Visitors, Kennecott employees, and Chisana gold stamperers flooded the new town. McCarthy became a supply and recreation stop for the entire mining district.

McCarthy shriveled into a sleepy, isolated town when Kennecott mine ceased operations in 1938. The Copper River trestle washed out in 1939, cutting McCarthy off from Chitina. After that, the post office closed and many long-time residents, including John Barrett, moved out.

McCarthy is still the gateway to Kennecott but now it welcomes park visitors rather than miners. It retains much of the flavor of a turn-of-the-century mining town thanks to landowners who have preserved and restored historic buildings for use as businesses or private homes.



## CHISANA: ALASKA'S LAST GOLD STAMPEDE

---

Chisana is located near the Canadian border in the northeastern portion of the park and can be accessed by small aircraft. It is one feature of the Chisana National Historic Landscape, a district listed on the National Register of Historic Places. Stampeders in Alaska's last gold rush started their quest for riches in Chisana City.

The Chisana stampede began when N. P. Nelson, Matilda Wales, and William E. James discovered placer gold deposits at Bonanza Creek in 1913. As many as 3,000 "stampederers" joined in the rush to the district. The town was known as Chisana City until recent times and was the trade center for the mining district. By 1914 there were 400 cabins, four stores, two meat markets, two barber-shops, two restaurants, a hotel, and a boarding house. It became known as the largest log cabin town in the world. The returns from the diggings gradually declined and by 1924 Chisana City was almost deserted.

As you hike around Chisana today, you will see a few old cabins and ruins of structures, but often all that remains is a depression with a scatter of metal and wood. Many of the historic structures are on private property and public easements are marked. There are about 25 permanent residents in Chisana who operate bed and breakfasts and work as guides in the area. The National Park Service has restored four log buildings in the original townsite. The Too Much Johnson Cabin is available for public use.

Today, several popular backcountry hiking routes start or end in Chisana, including trips to the Gold Hill area, White River and Solo mountain, Beaver Creek, and Cooper Pass to the Nabesna River. Some hikers retrace the steps of the early stampederers and make the trip from Chisana to McCarthy. This is a difficult route and should only be attempted by experienced backcountry travelers.

# KENNECOTT MINES NATIONAL HISTORIC LANDMARK

## A LINK TO HISTORY

The Kennecott mill town and mines are an extraordinary relic from America's past. The impressive structures and artifacts that remain, represent an ambitious time of exploration, discovery, and technological innovation. They tell stories of westward expansion, World War I politics and economy, the lives of the men, women and children who lived there, and the rise of a multinational corporation. Each link in the historical chain connects to another until we realize that this remote, Alaska mining venture was intricately connected to the world around it.

The Kennecott Mines National Historic Landmark includes the land and mining claims that formed the foundation for the Kennecott Copper Corporation, later the Kennecott Minerals Company. The operation had two components: the mill town where ore was processed and the mines that extracted the ore. From 1911 to 1938, nearly \$200 million worth of copper was processed. At the peak of operation, approximately 300 people worked in the mill town and 200-300 in the mines. Kennecott was a self-contained company town that included a hospital, general store, school, skating rink, tennis court, recreation hall, and dairy.

By the late 1920s, the supply of high-grade ore was diminishing, and Kennecott Copper Corporation was diversifying into other North American and Chilean

mines. Declining profits and increasing costs of railroad repairs led to the eventual closure of the Kennecott operation in 1938. By that time, the corporation was well on the way to becoming a multinational giant.

## WATCH YOUR STEP

The Kennecott Mines National Historic Landmark is fascinating and almost begs for exploration. However, it is an abandoned industrial site and hidden dangers abound. Please keep children under close supervision.

The historic buildings are in various stages of collapse and disrepair. Please do not enter buildings. Feel free to explore, but be aware that debris is scattered throughout the area. Do not attempt to walk on decks or stairs attached to buildings, as many of the boards are rotten and unsafe. Avoid the steep slopes where loose debris may be hidden by overgrown brush, and keep to the gravel paths.

Hazards at an industrial mining site include chemicals used in the milling process and petroleum products used to operate and maintain machinery. On-going cleanup efforts continue today, but some contaminants, like lead paint, still exist. For your own safety, please do not remove any materials or debris.





### STABILIZING A LANDMARK

Many of the buildings in Kennecott have been abandoned for sixty years. Some are in need of immediate stabilization to keep them standing, while some have deteriorated beyond the point of saving. The National Park Service, along with the local community and Friends of Kennecott, has engaged in an ongoing planning effort to identify buildings that will be stabilized, restored, or renovated, and those that will not receive any attention at all.

The goal of these renovation efforts is to retain the historic characteristics of the buildings while adapting them for modern use. The store and post office will be renovated for use as a visitor center, and the recreation hall will serve as a venue for educational programs, meetings, and community events.

The stabilization work in Kennecott is expected to take many years. Through the hard work of many dedicated individuals, a unique piece of American history will have been preserved for the enjoyment of future generations.



If hiking is on your agenda, then the Kennicott River Valley might be the place for you. There are a number of choices for self-guided day hikes suitable for a variety of ages and skill levels. If you are interested in guided hikes, check at the Kennecott Visitor Center for a schedule of ranger-led interpretive hikes and local businesses that provide guided historic and glacier tours. Maps and route descriptions are also available at the visitor center located in the historic train depot.

## HIKING IN KENNECOTT

**McCarthy Walking Tour (easy):** Pick up a McCarthy self-guided tour brochure (\$2) at the McCarthy Museum or the Kennecott Visitor Center. Set your own pace for this exploration of an Alaska railroad and mining boomtown.

**Kennecott Walking Tour (easy):** Pick up a brochure at the Kennecott Visitor Center for a self-guided tour of this National Historic Landmark. Learn more about the history of the mill town and the identification of each building.

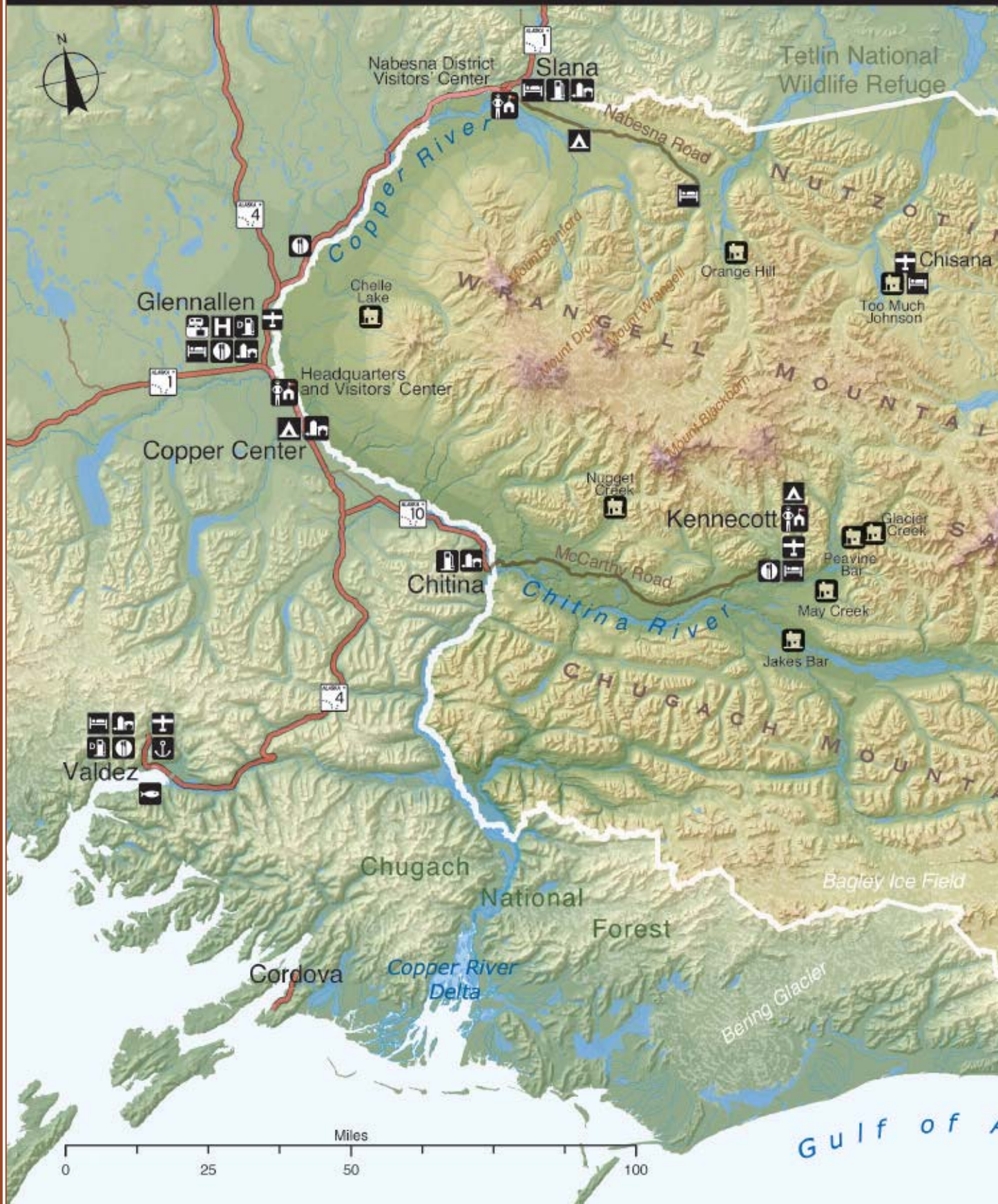
**Root Glacier Trail (easy-moderate, 4-8 miles):** This trail meanders along the lateral moraine of the Kennicott and Root glaciers to the toe of the Root Glacier (4 miles roundtrip). Beyond the Root Glacier turn-off, the trail turns to the east for views of the Stairway Icefall and the Erie Mine bunkhouse (8 miles roundtrip).

**Bonanza Mine (difficult, 8 miles):** If you have all day, hike up to the Bonanza Mine on the limestone-greenstone contact where the copper was formed. On a clear day, you'll have a spectacular view of Mount Blackburn, Mount Regal, and the University Range.

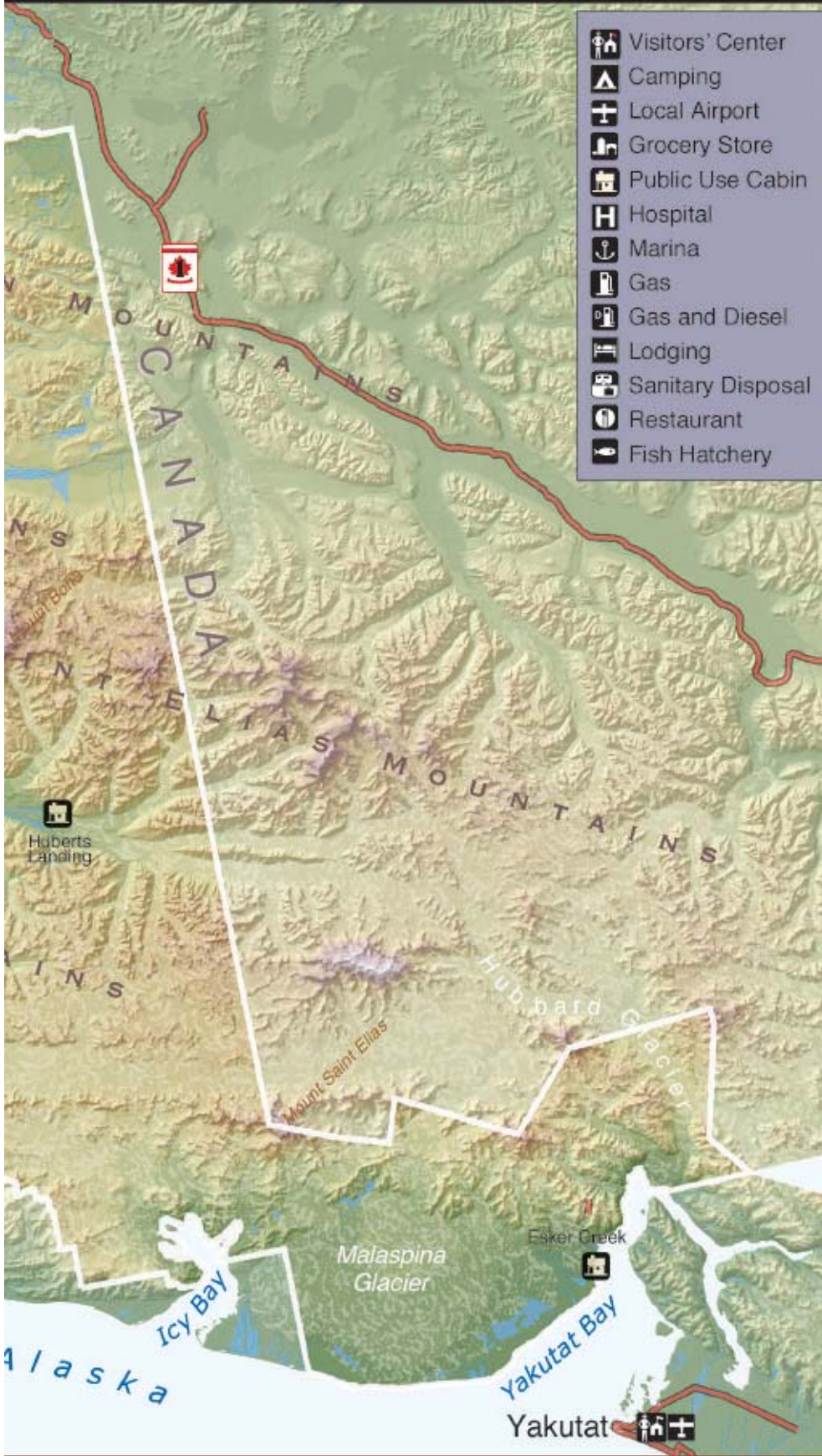
**The Root Glacier and Donaho Falls (difficult, crampons and experience necessary, all day):** Hikers experienced in glacier travel can cross the Root Glacier to view spectacular Donaho Falls. Local guide services are available.



# Wrangell - St. Elias National Park and Pr



# eserve



## FACTS

**LARGEST NATIONAL PARK** in the United States covering 13.2 million acres.

**NATIONAL HISTORIC LANDMARK** includes historic copper mines and the Kennecott mill town.

**FOUR MAJOR MOUNTAIN RANGES** converge here—Wrangell, St. Elias, Chugach, and Alaska—with nine peaks over 14,000 feet and 14 peaks over 10,000 feet.

**MOUNT ST. ELIAS** (18,008 feet) is the second highest peak in the United States.

**MOUNT WRANGELL** (14,163 feet) is one of the largest active volcanoes in North America.

**MALASPINA GLACIER** is the largest piedmont glacier in North America and is larger than the state of Rhode Island.

**HUBBARD GLACIER** is one of the largest and most active tidewater glaciers in North America.

**NABESNA GLACIER** is the longest continental valley glacier in North America.

**BAGLEY ICEFIELD** is one of the largest continental icefields in North America.

# BACKCOUNTRY

A trip into the backcountry of Wrangell-St. Elias is a great way to experience this remote national park. Advance planning is the key to a safe and enjoyable trip. Park rangers are trained to assist you with all aspects of planning a backcountry trip, including selecting an appropriate route and logistical details.

## TIPS

**CHOOSE A ROUTE** that is within your ability.

**PACK** appropriate gear including specialized equipment such as ice crampons for glacier travel.

**PLAN FOR DELAYS** by packing extra food and supplies.

**WILDERNESS SURVIVAL SKILLS** including compass and map reading are vital to your safety. Don't rely on gadgets. Your cell phone won't work in much of the park and your GPS might malfunction. Help will be hours or even days away, so you must be self-sufficient.

**ITINERARY** forms are available at all visitor centers. You will need to provide a description of your party, your route, and emergency contact information. Always let someone reliable know of your plans.

**BEARS** are found throughout the park. Protect yourself and bears by avoiding encounters. Please read the bear safety guidelines on page 16.

## SAFETY

**HYPOTHERMIA** is a year-round threat. Dress in layers, keep yourself and your gear dry, stay hydrated, and eat high-calorie snacks.

**TRAVEL IN GROUPS** to be safe. Solo travel in the backcountry puts you at higher risk for accident and injury.

**EXPLOSIVES** and other hazards are scattered throughout the backcountry. If you find explosives, chemicals, or barrels with suspicious contents, leave the area and report the location to a park ranger.



## RIVER CROSSINGS

Challenging conditions make river crossings one of the most hazardous elements of backcountry travel in the park. You must evaluate conditions at each river crossing. Never let a deadline rush you into making a poor decision.

**PREPARE:** Pack sleeping bags and extra clothing in plastic bags or dry bags inside your pack. Choose polypropylene or nylon clothes that dry quickly and won't trap silt. Leave your boots on—don't cross in socks or bare feet. Loosen pack straps before crossing so that you can slip out of your pack quickly in case of a fall. Change out of wet clothing as soon as possible.

**TIME:** The safest time to cross is during the cool hours of the morning. As the day progresses, warm temperatures increase glacial melt causing water to rise.

**PLACE:** Choose the widest or most braided section for crossing rivers, and look for slow-moving water flowing over level ground. These are usually indications of relatively shallow water. Straight channels generally have uniform water flow and depth, while bends often have deep cut banks and swiftly moving water. Stay alert to changing conditions and be prepared to alter your plans. Always proceed with caution—silt obscures visibility making any crossing of a glacial river hazardous.

# CABINS

Wrangell-St. Elias National Park and Preserve has cabins available for public use. Availability is first-come, first-served. All cabins have a woodstove and bunks. Replenish any firewood you use and leave the cabin clean for the next group. Dead and down trees may be used for firewood. Most of these cabins are accessible by airstrips that may be short and rough. Some of these cabins are located in historic districts and may be restored historic cabins. Please do not remove or relocate any artifacts or deface the buildings.

A reservation is required for the Viking Lodge Cabin. To make a reservation, call the Slana Ranger Station at 907-822-5238.

For more information, check the park website at [www.nps.gov/wrst](http://www.nps.gov/wrst)



Cabin	Location	Sleeps	Access
<b>Chelle Lake</b>	Chelle Lake on the west slope of Mount Drum elevation 3,200 feet	4	Fly in; multiple winter use
<b>Viking Lodge</b>	Mile 22 Nabesna Road across from Rock Lake	4	By foot; snowmachine in winter
<b>Glacier Creek</b>	18 miles east of McCarthy and .5 miles south of the Chitistone River	2	Fly in
<b>Huberts Landing</b>	Near the headwaters of the Chitina River and Chitina Glacier	2	Fly in
<b>Jake's Bar Cabin #1</b>	North shore of the Chitina River, 15 miles south of McCarthy elevation 1,000 feet	2	Chitina River; snowmachine in winter
<b>May Creek</b>	Near the east end of May Creek Airstrip	2	Fly in; snowmachine in winter
<b>Nugget Creek</b>	North side of Nugget Creek elevation 3,000 feet	4	By foot, ATV, horse, mountain bike via Nugget Creek Trail; snowmachine, ski or snowshoe in winter.
<b>Orange Hill</b>	East side of Nabesna River, 5 miles north of Nabesna Glacier	2	Fly in; snowmachine in winter
<b>Peavine Cabin</b>	Chitistone River, 14 miles east of McCarthy	3	Fly in; snowmachine in winter
<b>Peavine Cook House</b>	Chitistone River 14, miles east of McCarthy	6	Fly in; snowmachine in winter
<b>Too Much Johnson</b>	Chisana	2	Fly in; snowmachine in winter





## BEARS

Both black bears (*Ursus americanus*) and grizzly/brown bears (*Ursus arctos*) are found throughout Wrangell-St. Elias. A few simple precautions can keep you safe while camping and hiking, and protect the bears. Once a bear learns to identify hikers, campsites, or cabins as a source for food, there is rarely a happy ending.

### AVOID ALL ENCOUNTERS

- Watch for signs of bears such as tracks and scat.
- Avoid potential food sources such as carrion, salmon spawning streams, and berry patches.
- Make noise, particularly where visibility is limited. Your voice is best—bear bells are not very effective.
- Travel in groups. Groups are noisier and easier for bears to detect.
- Store food, trash, and personal hygiene products by hanging from trees or by using bear-resistant storage containers. Never store them in your tent.
- Cook and store food at least 100 yards from your tent.



**PLEASE REPORT ALL  
BEAR ENCOUNTERS  
TO A RANGER.**

**PEPPER SPRAY** containing capsaicin, a red pepper extract, is an effective, non-lethal deterrent against attacks by aggressive wildlife. Sprays have a maximum range of about six to eight yards. If discharged upwind or in a vehicle, they can disable the person using them. Use sprays approved by the EPA that contain at least eight ounces of deterrent.

**FIREARMS** are an accepted means of self-defense against bear attacks and there are no restrictions on carrying a firearm in the park. However, if you are inexperienced with their use in an emergency situation, you may injure yourself. A misplaced shot may enrage the bear further, prolonging an attack. A rifle of at least .30 caliber or a 12-gauge shotgun with slugs is recommended. Alaska law makes provisions for shooting a bear in self-defense if there is no alternative and the attack was unprovoked. The hide and skull must be salvaged and turned over to authorities.

**FOOD STORAGE CONTAINERS** are required in Wrangell-St Elias National Park and Preserve. You can borrow bear-resistant containers at park visitor centers for backcountry use. A refundable deposit is required.

### IF YOU DO ENCOUNTER A BEAR

- If the bear is unaware of you, detour away quietly.
- If the bear sees you, stop where you are. Wave your arms and talk to the bear in a calm voice. Retreat slowly, keeping the bear in sight.
- If the bear follows you, stand your ground.
- If contact by a grizzly bear is imminent, play dead. Curl up into a ball or lie flat on the ground, face down and legs apart. Protect your neck. Leave your pack on to protect your back. If the attack is prolonged, fight back vigorously.
- If it's a black bear, fight back vigorously.

# WILDLIFE

Wrangell-St. Elias National Park and Preserve is home to a variety of wildlife including mammals, butterflies and other insects (mosquitoes!), resident and migrant birds, fish and amphibians. Here are a few of the animals you might see.

## MAMMALS

Beaver  
Black Bear  
Grizzly Bear  
Caribou  
Coyote  
Dall Sheep  
Ground Squirrel  
Red Squirrel  
Little Brown Bat  
Lynx  
Moose  
Mountain Goat  
Porcupine  
Red Fox  
Red-back Vole  
River Otter  
Shrew  
Snowshoe Hare  
Wolf  
Wolverine

## MARINE MAMMALS

Harbor Seals  
Sea Lions  
Sea Otters  
Whales

## BIRDS

Chickadees  
Eagles  
Gray Jays  
Hawks  
Juncos  
Loons  
Magpies  
Owls  
Pine Grosbeaks  
Ravens  
Sparrows  
Trumpeter Swans  
Warblers  
Woodpeckers



Wildlife viewing in the park can be a rewarding way to spend a day, but it's not easy and there are no guarantees. The thick brush that grows along roads and many hiking routes can make it difficult to see animals. Many animals have camouflage or behaviors that make getting a look at them a real challenge. An animal's survival may depend on its ability to stay hidden. The season and availability of food also influence wildlife movement and sightings. Wildlife can be seen at any time, but early mornings and evenings are best.

**BE SAFE:** Viewing wildlife from a distance is safest for both you and the animal. Never approach a wild animal and never leave food for them.

**HOW TO LOOK:** Drive slowly and stop at pullouts to scan open areas for animals. If you are hiking, get above tree line or into open areas.

**WATCH FOR SIGNS:** You may find feathers, tracks, and scat on the trail, antlers and bones lying on the tundra, or fur caught in the branches of a tree or bush. Remember to leave behind whatever you find so that others may share your same sense of discovery.

**WHAT TO PACK:** Bring a field guide to help identify new animals and to learn about behavior, life cycle, and migration. Don't forget your binoculars and telephoto lense so you can view the animals from a safe distance.



# FORCES OF CHANGE



Wrangell-St. Elias National Park and Preserve is a fantastic laboratory and its extraordinary collection of mountains and geologic features was one of the primary reasons for the creation of the park.

The mountains here are impressive. Four ranges exist within the park—the Wrangells, St. Elias, Chugach, and Alaska—and were created by the collisions of plates in the Earth's crust.

Many of the peaks within the Wrangell Mountains were once active volcanoes. Today, only Mount Wrangell (14,163 feet) remains active. During the winter and on cool summer mornings, it is not unusual to see a steam plum rising up out of vents situated in craters along the margin of the summit caldera. In spite of the frequent puffs of steam, geologists tell us that Wrangell is showing no signs of erupting any time soon. But those puffs of steam remind visitors that this massive mountain is still an active volcano.

Geologists have concluded that the bedrock underlying these mountains formed further south, perhaps off of California. The movement of this terrane northward and its collision with other crustal plates caused volcanic activity, subduction and uplift resulting in massive mountain ranges in Alaska. Plate tectonics remains an active and powerful force of change today.

On November 3, 2002 a massive 7.9 magnitude earthquake located in the central Alaska Range extended eastward along the Denali and Totshunda faults, rocking the northern portion of the park. Damage to roads and personal property was extensive, but nobody was killed or seriously injured. This earthquake caused incredible changes to the topography of the region. Bedrock fractures were reactivated, cracks appeared in the surface and mountainsides, and huge mudslides came down many slopes. Scientists will be studying the impact of this earthquake for many years.

Glaciers are the headwaters for many of the river systems that flow like arteries through the park. Often referred to as rivers of ice, glaciers flow down mountain valleys and, in the case of tidewater glaciers, into the sea. We don't generally expect to see movement or experience the results of this movement. But glaciers, like other geologic forces, are dynamic.

During the summer of 2002, Hubbard Glacier near Yakutat pulsed forward closing Russell Fiord from the sea. The ice dam that formed was later breached and washed out by water retained behind the dam, reconnecting the fiord to the ocean. Rather than being an event that took hundreds of years, this drama played out in the course of a couple of months.

As you travel through the park, imagine the forces and processes of change that created this beautiful scenery and then remember that those same forces continue their work today. This place looks different now than it did just six months ago—what will it look like on your next visit?





## CLIMATE AND LANDSCAPE

---

Wrangell-St. Elias National Park and Preserve encompasses a variety of landscapes from ocean to mountains, and from glaciers to wetlands. The relationship between these diverse lands and the people and animals living within them is a compelling story in which climate plays a key role.

There are two broad climatic zones found in the park: coastal-maritime and sub-arctic continental. The sub-arctic zone is characterized by temperatures that can reach 100 degrees Fahrenheit in the summer and fall to 60 below zero in winter. Temperatures can fluctuate widely within any 24-hour period. Precipitation in this zone is moderate and atmospheric moisture remains low. The coastal-maritime zone, on the other hand, is characterized by much smaller variations in temperature, high atmospheric moisture content and regular precipitation.

The two climate zones are the result of the interaction between moist air from the Gulf of Alaska and the high coastal barrier presented by the St. Elias, Chugach, and Coast mountains. Other landscape features have a

significant impact on local climate: the Alsek and Copper rivers funnel warm moist air from the Gulf to the Interior, altering local weather patterns; valley glaciers funnel cold air and strong winds from Interior icefields to surrounding areas; and large lakes can have an effect on the local climate.

The types of plants that are found also provide information about climate and the land it grows on. The park contains three major vegetation zones: 39% is alpine and subalpine tundra, 8% is forest, and less than 1% is wetlands. Permanent snow and ice cover over 50% of the land.

Understanding climate and learning about vegetation can help you select an area appropriate for the types of activities you are interested in. Hikers generally try to avoid wetlands and reach drier alpine areas as quickly as possible, while bird and wildlife enthusiasts seek out the wetland habitats that are home to many animals.

If you are interested in learning more, stop by a park visitor center or visit our website at [www.nps.gov/wrst](http://www.nps.gov/wrst)



# ALASKA NATIVE CONNECTIONS

No one knows for sure when humans first reached the Copper River Basin of Interior Alaska. About 8,000 years ago caribou hunters began visiting Tangle Lakes, located at the head of the Gulkana River, fifty miles northwest of the park boundary. As glacial ice retreated, people eventually entered the Wrangell Mountains. Archaeological evidence has established a record of continuous human presence in the middle Copper Basin for the past 1,000 years, although it was probably occupied much earlier. Some believe that the area was originally settled by the Eyak. The Ahtna, however, replaced them long ago.

The Ahtna population in the Copper Basin was small and scattered because game was never plentiful enough to support large groups. Most villages contained twenty to thirty members of a familial clan and were situated where a major tributary entered the Copper River. There were two larger villages: Taghaelden (Taral) near the mouth of the Chitina River; and Nataelde (Batzulnetas) on Tanada Creek at the start of the primary route leading northward to the Tanana and Yukon rivers.

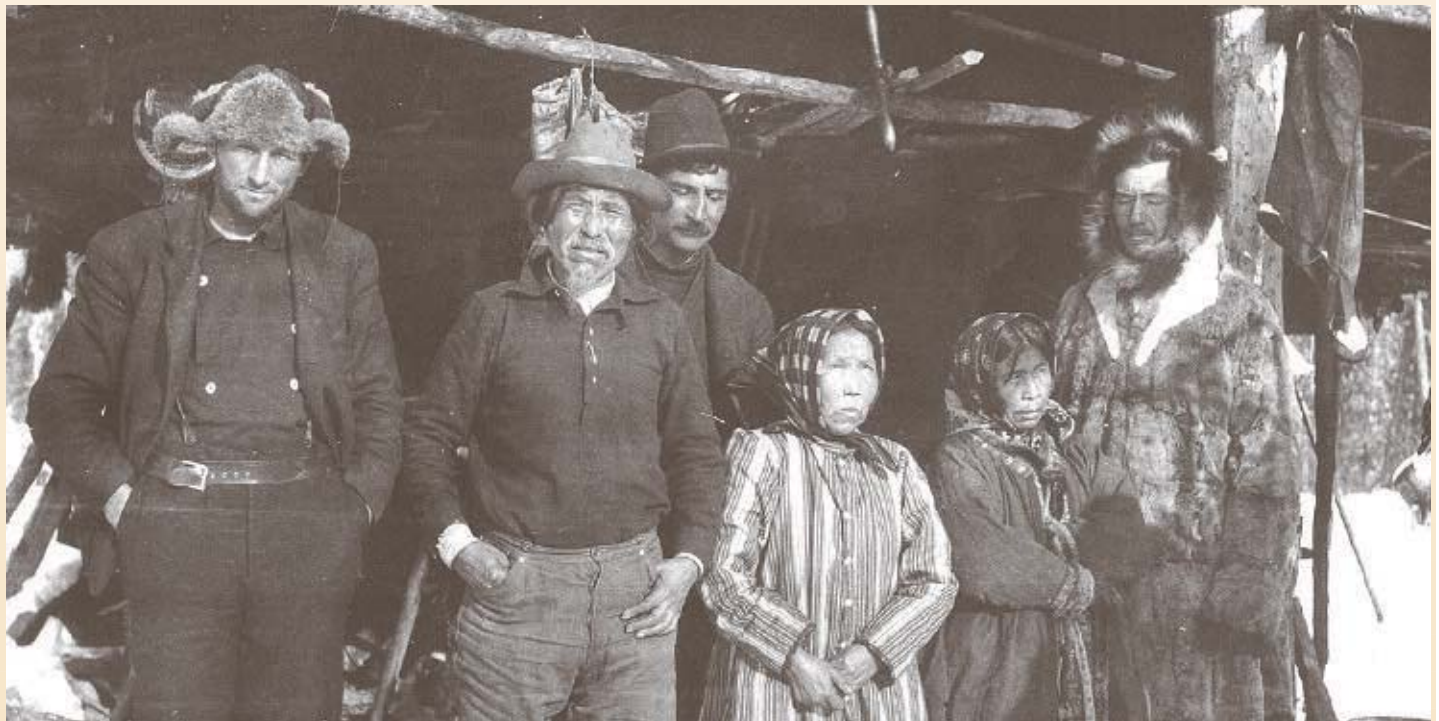
Upper Tanana Indians settled the northern edge of the Wrangell Mountains to the east of Batzulnetas, establishing several small villages along the Nabesna

and Chisana rivers: Tthiixaaí Ndiig (Cooper Creek Village) and Nachíetay Cheeg (Cross Creek Village). Most Upper Tanana communities were located further north outside the present boundaries of the park.

Experts believe that the Tlingit originated somewhere east of the Coast Mountains in what is now northern British Columbia. From there they traveled by river to the sea, then spread to the north and west, ultimately occupying the coast as far north as Cape Yakataga.

The Eyak emanated from an interior group as well. They moved down the Copper River to its mouth, then south-eastward across the Bering Glacier to occupy the coast between Yakataga and Cape Fairweather. The Eyak now occupy two villages just west of the Copper River Delta, Eyak and Alaganik.

Today the Ahtna, Upper Tanana, Eyak, and Tlingit live in or near many of the same villages they did historically. They are shareholders in Native corporations such as Ahtna, Inc., Chugach Alaska Corporation, and Chitina Village, Inc. Under the terms of the Alaska Native Claims Settlement Act of 1971, these corporations retained land within the boundaries of the park. In addition, several local Native villages have government to government relationships with the National Park Service. Alaska Natives and local rural residents who have traditionally engaged in subsistence activities within the park continue to pursue those activities today, allowing them to pass on to future generations traditional ways of life that are closely tied to place.





Researcher Layne Adams observes a caribou cow after attaching a radio collar to track her movements.

## A LIVING LABORATORY

From social science to fisheries, climate change to pollution, and glaciers to geology, Wrangell-St. Elias is a living laboratory where scientists conduct research and test their hypotheses. The research permits issued for projects within the park's boundaries reflect the diversity of resources found here. There are several areas of research currently underway in the park.

**CLIMATE AND GLACIERS:** Studies on global climate change using ice cores taken from icefields and glaciers not only reveal old pollen deposits that allow scientists to reconstruct plant life from hundreds of thousands of years ago, they also contain air trapped in the ice that can be used to determine ancient air composition.

**BOREAL FORESTS AND GLOBAL POLLUTION:** Unique plant communities and their accompanying fauna are found in the boreal forest at higher latitudes. These plants and animals are well-adapted to arctic conditions and are the first sensitive indicators of warming trends and the global effects of industrial waste products.

**DINOSAURS IN THE ARCTIC:** Undisturbed arctic areas often yield fossil bones from previous eras. These fossils may offer clues to the cause of mass extinction at the end of the Triassic, Jurassic, and Cretaceous periods. They also reveal information about the region's geologic history, and change in the flora and fauna of North America.

If you hike up Bonanza Ridge, you might meet Daizaburo Shizuka from the University of California at Santa Cruz, studying the life history of golden-crowned sparrows. On a trip down the Copper or Chitna rivers, you might see one of the many fisheries research projects going on here in cooperation with the Alaska Department of Fish and Game, US Fish and Wildlife Service, and local Native organizations. Game McGimsey from the US Geological Survey has been monitoring mud volcanoes for years, and is a great source of information on these unique geological formations. The relatively untouched nature of this vast and remote area, makes it ideal for studying long-term changes brought about by human influences regionally and globally. Researchers here are beginning to closely monitor a diverse array of "vital signs" including snowshoe hare, caribou, weather, and vegetation. More details about this exciting program can be found at [www.nature.nps.gov/im/units/cakn/](http://www.nature.nps.gov/im/units/cakn/)

The National Park Service (NPS) is committed to facilitating the use of public lands for scientific study. But just doing research is not enough. The NPS is also committed to connecting education with research and science. The NPS website and other publications bring research conducted in the park back to the public. Wrangell-St. Elias is not just a great place to visit, it's a great place to learn. **To learn more, stop by park headquarters at Copper Center or visit [www.nature.nps.gov](http://www.nature.nps.gov)**



# GATEWAY COMMUNITIES

---

As you drive the highways near the park, you will pass by numerous small communities, some of which trace their beginnings to early Ahtna villages. The following communities have national park information or are located along one of the two road corridors within Wrangell-St. Elias National Park and Preserve.

**GLENNALLEN:** Located at the junction of the Glenn and Richardson highways. Restaurants, RV parks, lodging, a bank, service stations, grocery stores, and gift shops. Emergency services include a clinic and Alaska State Troopers. The Greater Copper River Chamber of Commerce operates a visitor center here.

**COPPER CENTER:** Located 15 miles south of Glennallen on the Old Richardson Highway. Historic lodge and museum, post office, grocery stores, and RV campgrounds. The Klutina River is popular for rafting and fishing. The park visitor center is located nearby.

**CHITINA:** Located where the Edgerton Highway and the McCarthy Road meet. Convenience store, gas station, restaurant, and gift shops. The Copper and Chitina rivers are the site of a popular subsistence salmon fishery. There is a wayside with exhibits and a small National Park Service Visitor Center.

**McCARTHY:** Located at the end of the McCarthy Road in the heart of the Wrangell Mountains, this small town offers lodging, food, gifts, flightseeing, shuttles to Kennecott, and a variety of outdoor activities.

**SLANA:** Located at the junction of the Tok Cut-Off and Nabesna Road. Bed and breakfasts, two gas stations, a convenience store, a traditional roadhouse, a post office, a school, and a small National Park Service Visitor Center.

**YAKUTAT:** Located on the Gulf of Alaska coast and accessible by commercial air service and the Alaska Marine Highway. Services include lodging, restaurants, grocery stores, air taxis, and charter boats. There is a ranger station and a visitor center.



# PARK PARTNERS

For more information on Wrangell-St. Elias National Park and Preserve's wildlife, geology, and history, look to the Alaska Natural History Association. As the principal nonprofit educational partner of Wrangell-St. Elias, Alaska Natural History operates bookstores with an extensive collection of materials on the natural and cultural heritage of Wrangell-St. Elias.

Look for our bookstores in the main visitor center in Copper Center, and in ranger stations in Slana and Kennecott. Your purchases support programs offered by park rangers, visitor center exhibits, volunteer programs, this visitor guide, and other services.

Alaska Natural History partners with more than 30 public lands across Alaska to operate informational bookstores and connect people to Alaska's rich natural and cultural heritage. Building a community dedicated to the future of Alaska's parks, forests, and refuges is at the core of our mission. Through bookstore revenues, membership dues, and donor contributions, we are able to play a vital role in connecting more people to Alaska's rich public lands. To find out more or to become a member, visit Wrangell-St. Elias and stop by one of the area bookstores or take a look at [www.alaskanha.org](http://www.alaskanha.org)

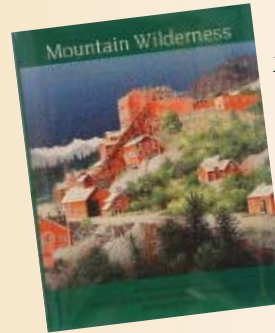


Alaska Natural History Association  
750 West Second Avenue, Suite 100  
Anchorage, AK 99501  
907-274-8440 or toll-free at 866-AK PARKS  
[www.alaskanha.org](http://www.alaskanha.org)

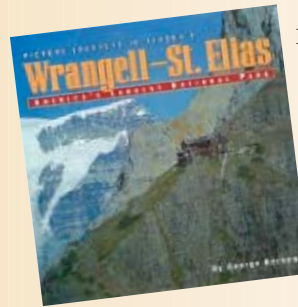


## PLANNING YOUR TRIP

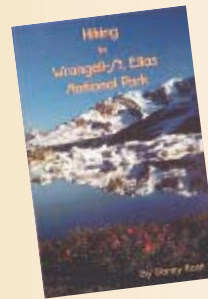
Visit the Association bookstores located at visitor centers throughout the park to find these useful guides. In addition to books, visitors will also find maps, journals, posters, field bags, and more.



**Mountain Wilderness**  
by William R. Hunt  
An illustrated history of America's largest national park. Over 100 black and white photos.  
**\$19.95**



**Picture Journeys in Alaska's Wrangell-St. Elias**  
by George Herben  
Pictorial essay takes readers to places accessible only by pilots and backpackers.  
**\$24.95**



**Hiking in Wrangell-St. Elias National Park**  
by Danny Kost  
Rugged wilderness with few maintained trails, this is the place for true backcountry adventurers.  
**\$13.95**



**Wrangell-St. Elias National Park and Preserve Trails Illustrated Topo Map**  
by National Geographic  
Waterproof  
**\$9.95**

Also available on-line at [www.alaskanha.org](http://www.alaskanha.org)





## FOR MORE INFORMATION:

### **Wrangell-St. Elias National Park and Preserve**

Administrative Headquarters  
Mile 106.8 Richardson Hwy  
P.O. Box 439  
Copper Center, AK 99573  
headquarters 907-822-5234  
visitor center 907-822-7440  
[www.nps.gov/wrst](http://www.nps.gov/wrst)

### **Kennecott Visitor Center**

Kennecott Mines National Historic Landmark  
907-554-2417 (Memorial Day to Labor Day)

### **Slana Ranger Station**

Nabesna District Visitor Center  
Mile .2 Nabesna Road  
Box 885  
Slana, AK 99586  
907-822-5238

### **Gulkana Operations Center**

Mile 118 Richardson Hwy  
907-822-5236

### **Yakutat Ranger Station**

P.O. Box 137  
Yakutat, Alaska 99689  
907-784-3295

### **Bureau of Land Management**

P.O. Box 147  
Glennallen, AK 99588  
907-822-3217

### **Chugach National Forest**

Cordova District  
P.O. Box 280  
Cordova, AK 99574  
907-424-7661

### **Kluane National Park and Reserve**

Parks Canada  
Box 5495  
Haines Junction, YT  
Canada, YB 1L0  
403-634-7279

### **Emergency dial 911**

There are medical clinics in Tok and Glennallen.

## QUESTIONS? COMMENTS? CONCERNS? PLEASE CONTACT:

Superintendent  
Wrangell-St. Elias National Park and Preserve  
P.O. Box 439  
Copper Center, AK 99573  
907-822-5234, phone  
907-822-7216, fax  
[www.nps.gov/wrst](http://www.nps.gov/wrst)



## LEAVE NO TRACE

- Plan Ahead and Prepare
- Travel and Camp on Durable Surfaces
- Dispose of Waste Properly
- Leave What You Find
- Minimize Campfire Impacts
- Respect Wildlife
- Be Considerate of Other Visitors