



K'elt'aeni

VISITOR GUIDE



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K'el t'aeni

The name *K'elt'aeni* 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.



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Welcome

We are pleased that you have chosen to visit this special place, truly one of America's treasures. You have a unique opportunity here to experience wilderness firsthand. You will see massive glaciers, towering mountain peaks and graceful rivers. If you like, you can walk through boreal forests or across arctic tundra and observe the wildlife native to each.

At just over 13.2 million acres, Wrangell-St. Elias National Park and Preserve is the largest unit in the National Park System. But this park is much more than a big place with wildlife, tall peaks and rivers of ice. The forces of nature that shaped Wrangell-St. Elias in the past are still very much at work here. The landscape is dynamic and changing, literally every day.

Human interaction with this wilderness began thousands of years ago. The land encompassed by the park has long been home to the Ahtna, Upper Tanana, Eyak and Tlingit peoples, and still is today. Their traditional knowledge and culture are another dynamic part of what makes this park unique.

Explorers, first from Russia and then the United States, and an international group of fortune seekers left their mark on the landscape. The Kennecott Mines National Historic Landmark is one example of early efforts to harvest the rich natural resources of Alaska. Latecomers learned what the Native Alaskans before them had always known—this is an unforgiving land

and a tough place to earn a living. While it was gold and copper that first brought people here from the “outside,” many stayed on. They came to value a way of life here that they found nowhere else, and they put into motion events that would change the Wrangells and the rest of Alaska forever. That independent spirit still brings people here today. Many come as visitors, while others make their home in the park and in the surrounding communities.

The *K'elt'aeni* Visitor Guide was created to help you plan your visit and navigate around the park. Access may seem limited when compared to traditional national parks you might have visited “down below.” But with some effort and careful planning, you will find sites, sounds and experiences that will excite you, surprise you and inspire you. The staff of Wrangell-St. Elias National Park and Preserve is committed to doing all they can to assist you with planning your trip, answering your questions and providing you with quality interpretive programs to further enhance your time here.

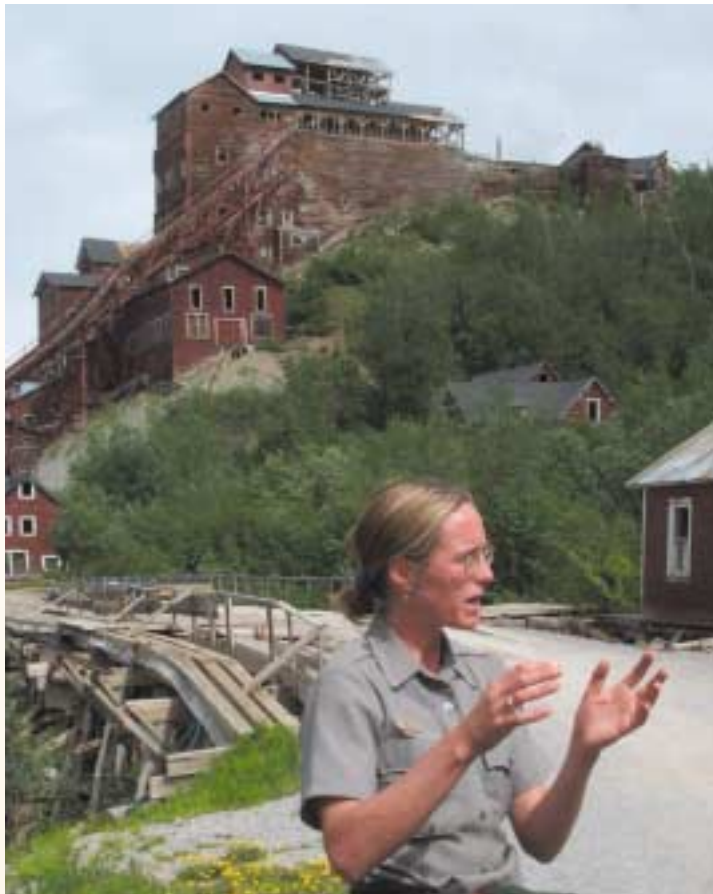
Please travel safely in this “Great Land.” I know that you will find your visit to Wrangell-St. Elias National Park and Preserve to be the experience of a lifetime.

Gary Candelaria
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, the largest internationally protected terrestrial ecosystem on the planet.





PARK VISITOR CENTERS

Wrangell-St. Elias National Park and Preserve has five 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.



Wrangell-St. Elias National Park and Preserve Visitor Centers

Name	Wrangell-St. Elias National Park and Preserve Visitor Center 907-822-7440	Kennecott Visitor Center	Chitina Visitor Center 907-823-2205	Nabesna District Visitor Center 907-822-5238	Yakutat Visitor Center 907-784-3295
Location	Mile 106.8 Richardson Highway (between Glennallen and Copper Center)	The Depot Building	Mile 33 of Edgerton Highway	Mile .2 Nabesna Road	Yakutat
Hours	Summer: Daily 8:00 a.m. - 6:00 p.m. Winter: Mon - Fri 8:00 a.m. - 4:30 p.m.	Summer Only: Memorial Day - Labor Day Daily 9:00 a.m. - 5:30 p.m.	Call for hours	Summer: Daily 8:00 a.m. - 5:00 p.m. Winter: Mon - Fri 8:00 a.m. - 4:30 p.m.	Summer: Mon - Sat 8:00 a.m. - 5:30 p.m. Winter: Mon - Fri 8:00 a.m. - 4:30 p.m.
Park Film	Shown in Theatre Building See Visitor Center for schedule	No	Shown on TV upon request	Shown on TV upon request	Shown on TV upon request
Exhibits	Exhibit Building	Geology and Kennecott History	Maps and Information	Exhibits change seasonally. Topics include wildlife, salmon life cycle and area history.	Historic photos of Yakutat and Mt. St. Elias, glacier exhibit, regional map and a Tlingit house screen.
Programs	See Visitor Center for topics and schedule. 1 mile loop trail with interpretive waysides.	Formal presentations and guided history walks. See Visitor Center for schedule.	Call for schedule and topics	Guided botany and natural history walks. Special programs scheduled through the summer.	Formal and informal programs scheduled during the summer. Open when Alaska Marine Highway Ferry is in port.



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 a river guide for rafting trips or a hiking or glacier trekking guide. Some back-country travelers use air taxis to access remote areas,

allowing them to avoid dangerous river crossings and brushy, wet terrain below tree line. Hunting and fishing guides are available as well.

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. Sport fishing and subsistence hunting by local, rural residents is allowed in the park and preserve.

HOW TO GET THERE

There are two roads into the park, McCarthy Road (60 miles) and Nabesna Road (42 miles). Visitors to the town of McCarthy and to Kennecott can drive McCarthy Road or leave the driving to someone else and take a shuttle bus from Chitina to McCarthy. A flightseeing trip from Chitina to McCarthy is another 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. There are air taxis, a small boat harbor and guide services. Ocean kayaking and whale watching are just two of the opportunities park visitors can take advantage of while in Yakutat.

Motorboats, airplanes and snowmobiles may be used 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.





Caribou crossing Nabesna Road during the spring migration.

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.

Here 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

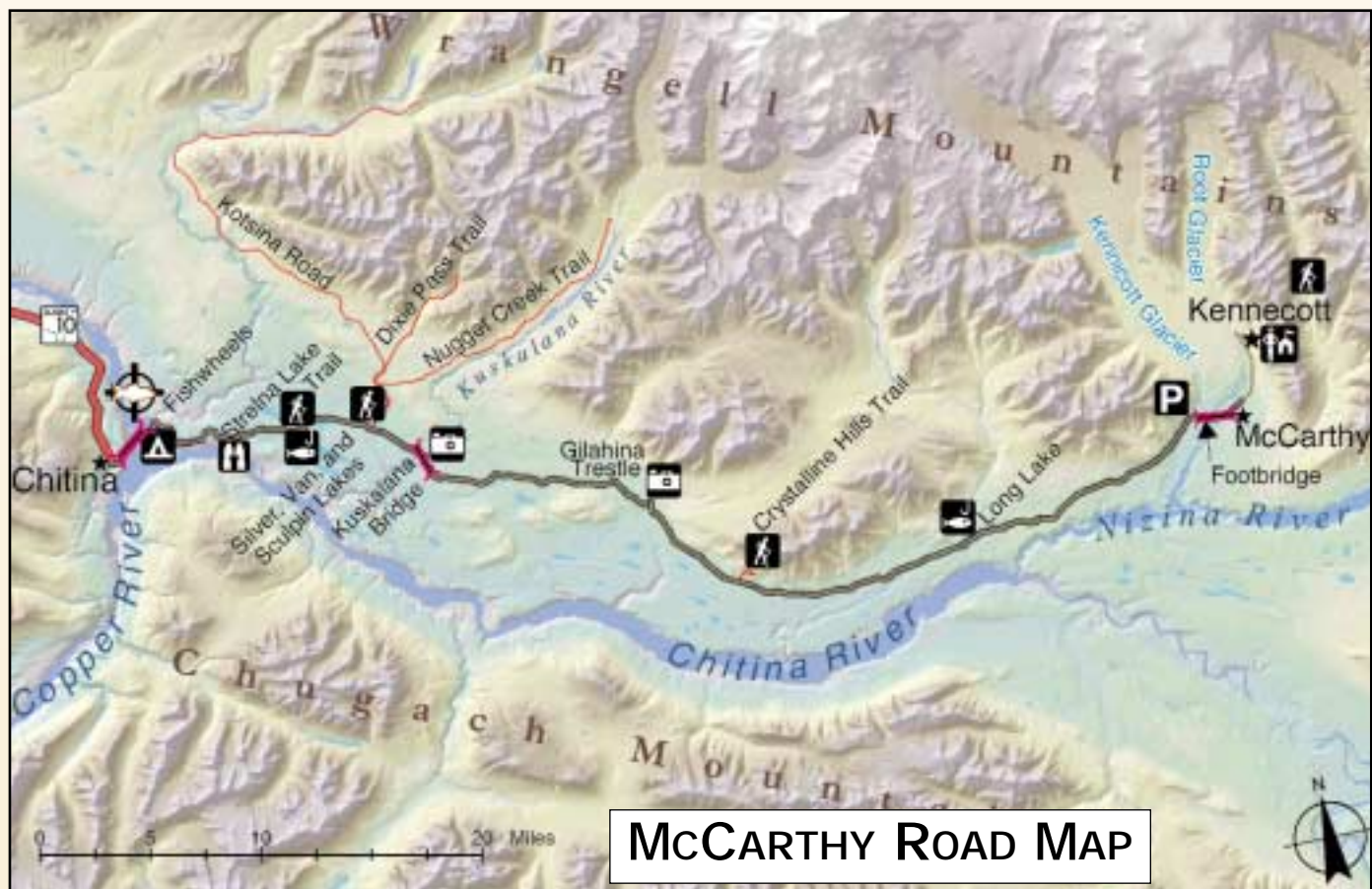
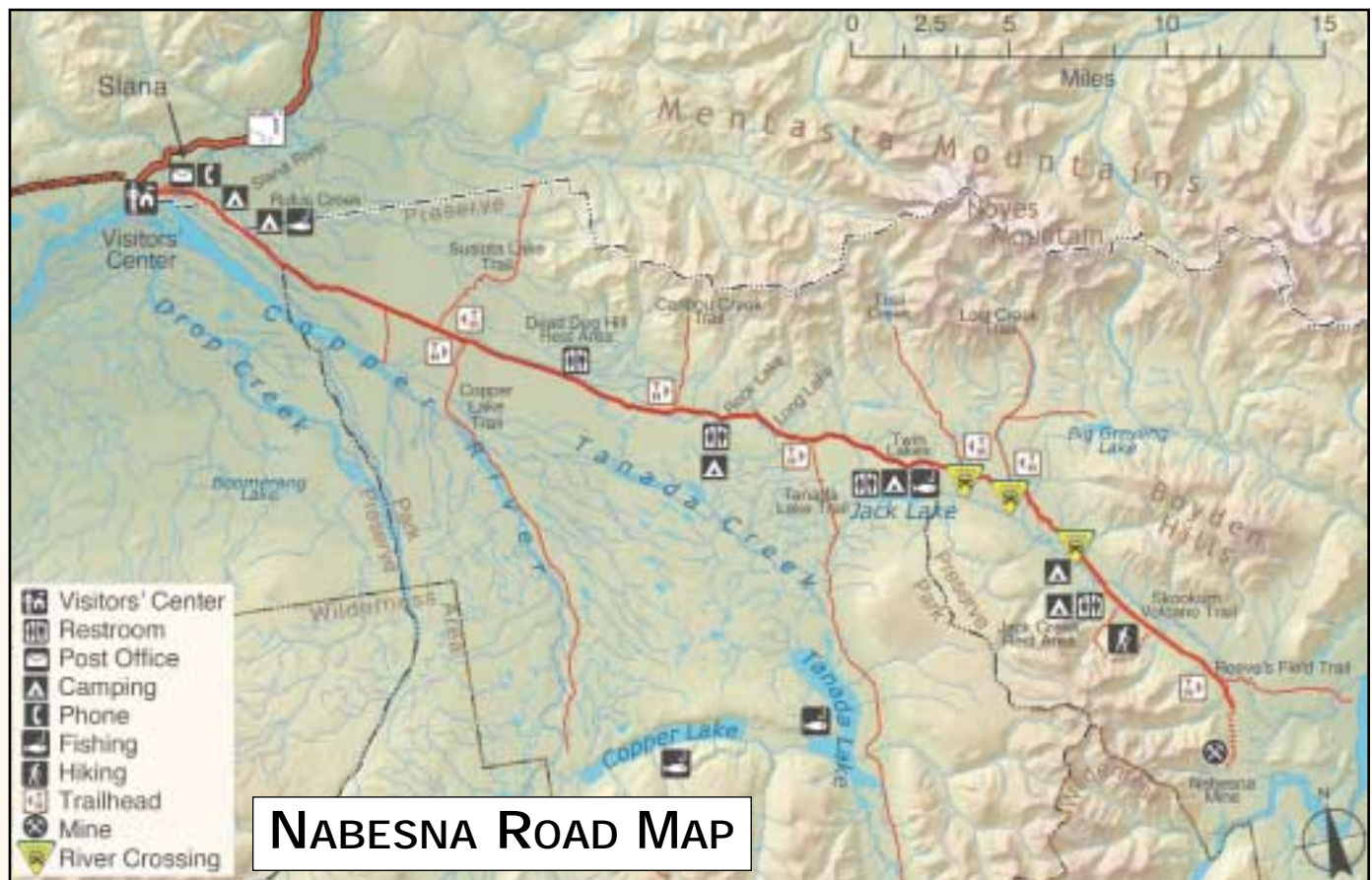
The McCarthy Road begins at Chitina and follows the abandoned railroad bed of the Copper River and Northwestern Railway. Your adventure begins as you cross the Copper River at its confluence with the Chitina River and continues for 60 miles.

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 airtaxis 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 there is additional parking available from a private vender. There are two foot bridges to take you across the Kennicott River where you can continue on foot, by bicycle or shuttle.

Travel Tips

- 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.
- 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 stampedeers 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.



Artifacts left behind by Native Alaskans and those who follow are an irreplaceable part of our nation's history. Enjoy them, but please leave them where you find them.

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. Stampedeers 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 "stampedeers" 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 Johnston 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 stampedeers and make the trip from Chisana to McCarthy. This is a difficult route and should only be attempted by experienced backcountry travelers.

KENNECOTT 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. 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 lurk everywhere. 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 the buildings as many of the boards are rotten and unsafe. Avoid the steep slopes where loose debris may be hidden by overgrown brush. 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. The Kennecott Copper Corporation conducted hazardous materials clean up of asbestos and other materials between 1990 and 1993. Lead contamination is still present in paint on the buildings. Removal of lead hazards is underway.





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 on-going 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 available at visitor information locations in Kennecott.

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.

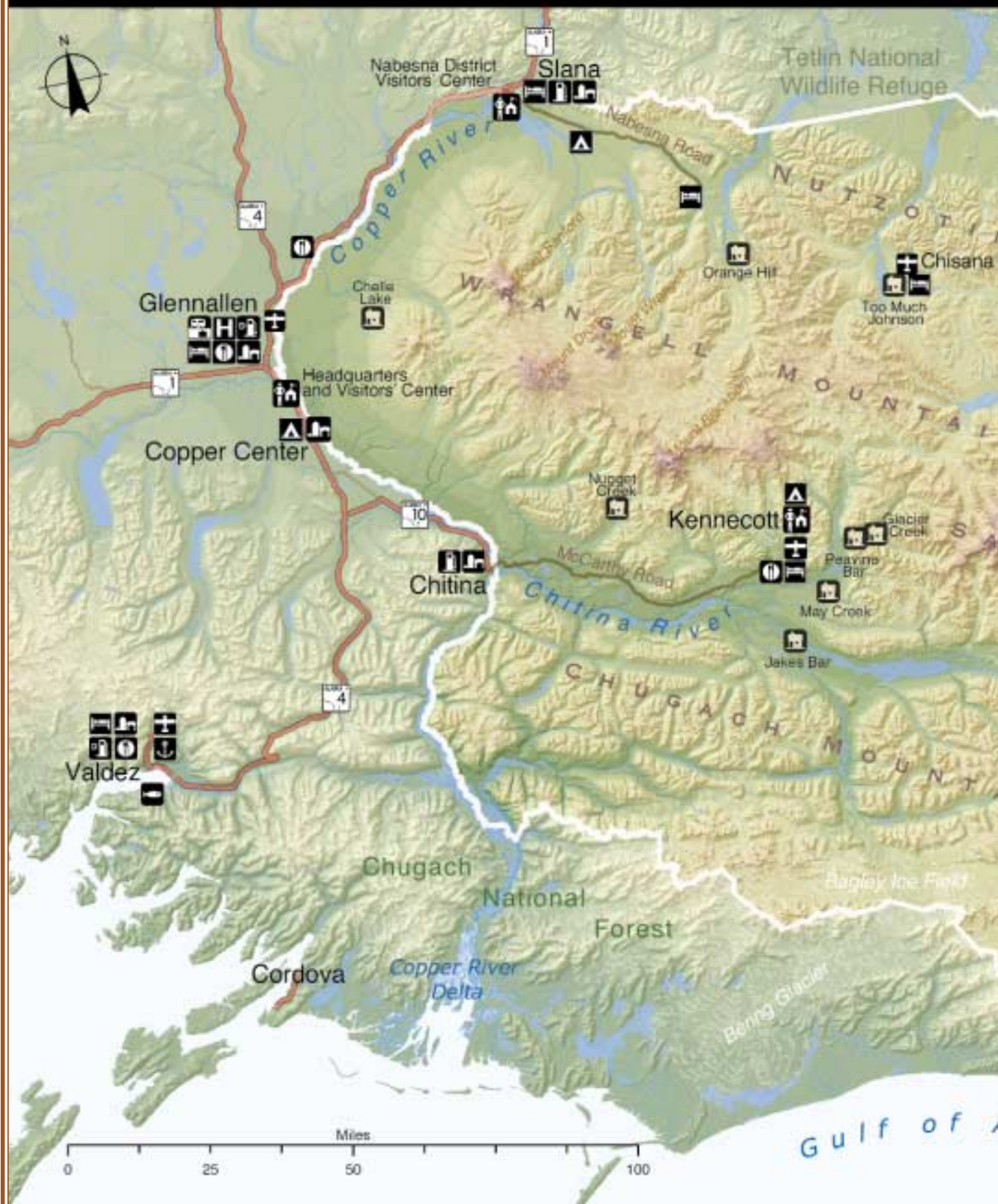
Root Glacier Trail (easy-moderate, 4-8 miles): This trail meanders along the lateral moraine of the Kennicott and Root glaciers to the toe of the Root Glacier (4 miles roundtrip). Beyond the Root Glacier turn-off, the trail turns to the east for views of the Stairway Icefall and the Erie Mine bunkhouse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

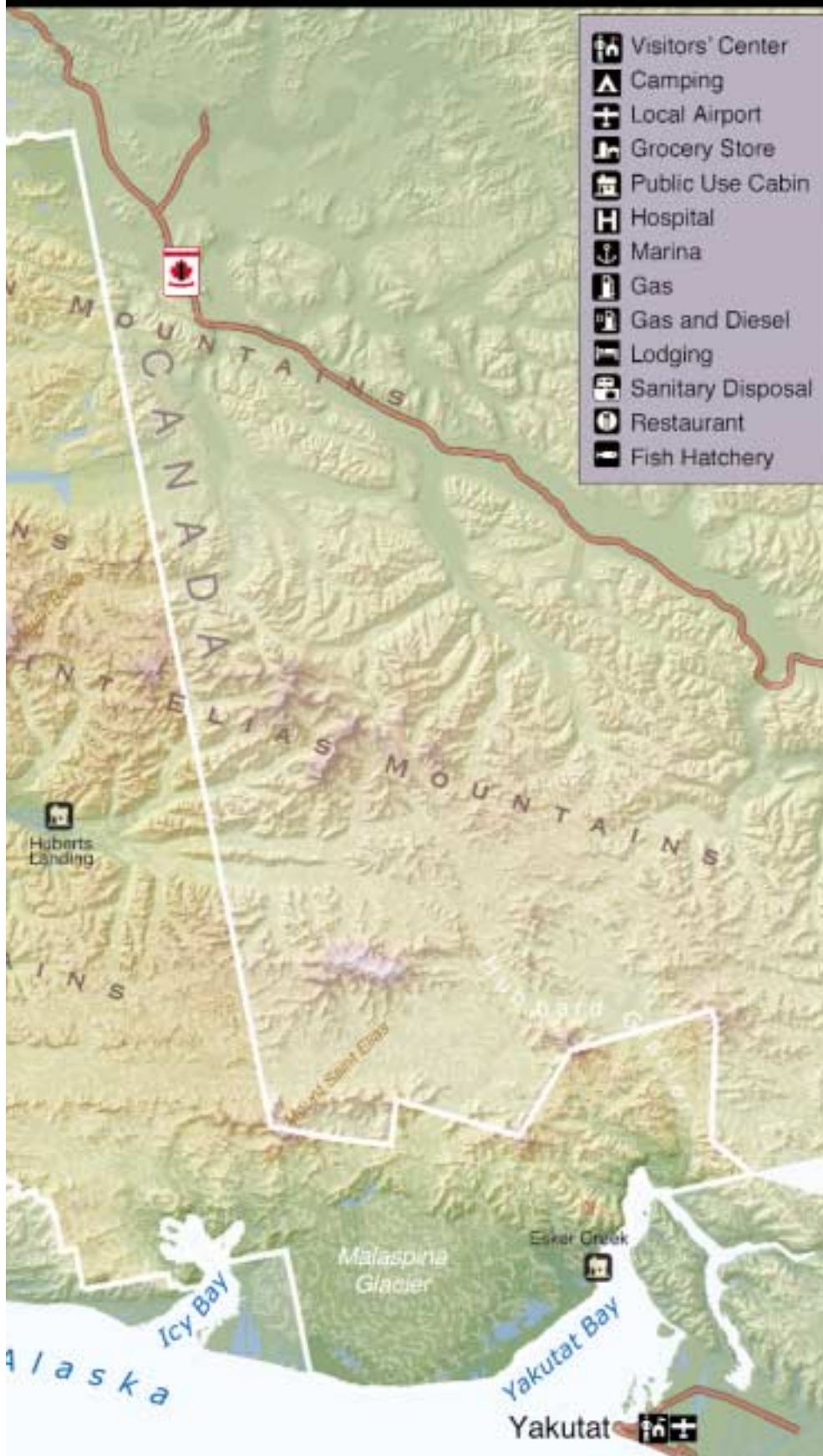
The Root Glacier and Donaho Falls (difficult, crampons and experience necessary, all day): Hikers experienced in glacier travel can cross the Root Glacier to view spectacular Donaho Falls. Local guide services are available.



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 Esker Stream cabin. To make a reservation and to pay the \$25 per night charge, call the Yakutat Visitor Center at 907-784-3295.

For more information, check the park website at www.nps.gov/wrst



Cabin	Location	Sleeps	Access
Chelle Lake	Chelle Lake on the west slope of Mount Drum elevation 3,200 feet	4	Fly in; multiple winter use
Esker Stream	Esker Stream near Disenchantment Bay (Yakutat District)	4	Fly in
Glacier Creek	18 miles east of McCarthy and .5 miles south of the Chitstone River	2	Fly in
Huberts Landing	Near the headwaters of the Chitina River and Chitina Glacier	2	Fly in
Jake's Bar Cabin #1	North shore of the Chitina River, 15 miles south of McCarthy elevation 1,000 feet	2	Chitina River; snowmachine in winter
May Creek	Near the east end of May Creek Airstrip	2	Fly in; snowmachine in winter
Nugget Creek	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.
Orange Hill	East side of Nabesna River, 5 miles north of Nabesna Glacier	2	Fly in; snowmachine in winter
Peavine Cabin	Chitstone River, 14 miles east of McCarthy	3	Fly in; snowmachine in winter
Peavine Cook House	Chitstone River 14, miles east of McCarthy (closest to airstrip)	6	Fly in; snowmachine in winter
Too Much Johnston	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.

BEAR-RESISTANT FOOD CONTAINERS are recommended but not required. You can borrow containers at park visitor centers for use in the backcountry. 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 (mosquitos!), 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 challenging and 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 Mentasta-Nutzotin—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 district of the park. Displacement on the fault reached five meters in places. 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. They are heavy with glacial silt and sediment, causing them to braid as one channel begins to fill with sediment forcing the water to move to a new channel. Glaciers themselves are often referred to as rivers of ice. They 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, visit an Alaska Natural History Association bookstore located in Wrangell-St. Elias National Park or go to www.alaskanha.org



Chitistone Falls



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: Tthiixaai Ndiig (Cooper Creek Village) and Nachietay 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 have acquired land within the boundaries of the park. In addition, several villages have government relationships with the National Park Service. Native and non-Native Alaskans 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.



Credit: Francis Pope collection, Rasmuson Library, UAF



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 along McCarthy Creek you could meet Jeff Trop from Bucknell University as he studies the mystery of the Triassic. Jason Lynch from the University of Illinois Champlain-Urbana is studying sediment cores from lakes in order to gain insight into the poorly understood boreal fire regime. Mike Loso with the University of California at Santa Cruz spends his summers exploring century-long trends of warming and the impacts on glaciers. Dan Doak, also from California, investigates plant populations within the boreal forest using a circumpolar plant as an indicator of change.

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 take 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.nps.gov/naturenet.**



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 near one of the two road entrances to 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.

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.

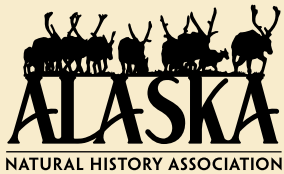
YAKUTAT: is located on the coast of the Gulf of Alaska and is accessible by commercial air service and the Alaska Marine Highway. Services include lodging, restaurants, grocery stores, air taxis and charter boats. There is a ranger station and a visitor center.



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.

Park Partners



Alaska is a naturally beautiful place. This beauty emerges from Alaska's extensive public lands—approximately 80% of the state. Increased visitation to public lands results in an increased need for visitor

services. Unfortunately, shrinking government budgets make it harder and harder to offer services to the many visitors and neighbors of public lands in Alaska. Nonprofit organizations, such as the Alaska Natural History Association, help fill these gaps and provide either direct services or vital support for ongoing educational experiences that people enjoy in our public places. The Association shares the natural and cultural history of Alaska's amazing lands by:

ENHANCING visitor experiences through information, exhibits and displays.

PUBLISHING books and other educational materials, including this *K'elt'aeni Visitor Guide*.

EARNING vital financial support for educational and scientific programs.

OPERATING over 50 bookstores in public land visitor centers throughout Alaska.

Support these educational efforts by becoming a member. To purchase materials visit the Association bookstores at the visitor centers.

Alaska Natural History Association
750 West Second Avenue, Suite 100
Anchorage, AK 99501
Toll-free 866-AK PARKS
907-274-8440
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





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

Slana Ranger Station

Nabesna District
Visitor Center
Mile .5 Nabesna Road
Box 885
Slana, AK 99586
907-822-5238

Gulkana Operations Center

Mile 118 Richardson Hwy
907-822-7291

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 Reserve

Parks Service 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



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