Wrangell-St. Elias

National Park & Preserve

National Park Service U.S. Department of the Interior

The official visitor's guide to Wrangell-St. Elias National Park & Preserve

K'elt'aeni

2006 Visitor Guide



An International Treasure

WRANGELL- ST. ELIAS NATIONAL PARK & PRESERVE IS THE largest national park in the United States. When its 13.2 million acres are combined with Glacier Bay National Park and Preserve, and

Canada's Kluane National Park, and Tatshenshini-Alsek Provincial Park, the resulting 24 million acre World Heritage Site is the largest international terrestrial protected area in the world. This is a vast expanse where grizzlies dine on moose, volcanoes spew ash, more than half the glacial ice in the state of Alaska surges and ebbs, and the irrepressible forces of plate tectonics push mountains up more than an inch per year. Here human influence on the landscape often goes unnoticed, and while it may appear to be an inhospitable wilderness, generations of people have called this place home.

The vast landscape of Wrangell- St. Elias sweeps across political

boundaries into the Yukon Territory and British Columbia. In spite of its great size, Wrangell- St. Elias and the World Heritage site of which it is a part are affected by external factors, both local and global.

IONAL

Changes in plant cover, glaciers, and sea ice are the result of global climate change in Alaska, and these effects reach into Wrangell- St. Elias. Multiple fisheries within and outside the Park harvest salmon destined for their natal spawning areas within the Park. White sweet clover and other exotic plants from outside Alaska may alter the structure or appearance of ecosystems and landscapes within Wrangell- St. Elias and the other Alaskan parks. Humans have no control over the impacts of plate tectonics on Wrangell- St. Elias, while we can affect another global factor under research by scientists, air contamination

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Wrangell-St. Elias NATIONAL PARK & PRESERVE (907) 822-5234 www.nps.gov/wrst

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K'elt'aeni Visitor Guide 2006

The name K'elt'aeni (kel-TAH-nee) is an Athabaskan word for the Wrangell volcanoes, and means "The ones that control the weather," referring to the clouds and strong storms that often form above and cover these lofty summits.

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Wrangell-St. Elias National Park & Preserve

Covering over 13 million acres, Wrangell-St. Elias is the largest unit in the U.S. National Park System, and part of the largest protected ecosystem on the planet. Magnificent mountain ranges, grinding glaciers, roaring rivers, abundant wildlife, and seemingly endless wilderness

Superintendent Jed Davis

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E-mail wrst_interpretation@nps.gov

Website www.nps.gov/wrst

The National Park Service cares for special places saved by the American people so that all may experience our heritage.

Superintendent's Welcome

Welcome to YOUR park

WELCOME TO WRANGELL- ST. ELIAS NATIONAL PARK

& 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 Alaskan 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 river, crossing a glacier, driving one of the park's primitive roads, overwhelming your senses on a scenic flight, or charting your own Superintendent Jed Davis backcountry trek, the park is ready for those willing and prepared to enter it.

Access and services here may seem limited when compared to traditional National Parks you may have visited "down below." What the area may lack in services, it more than makes up for in friendly people and un- crowded wilderness.

of a lifetime.

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 plan-

ning, 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



JA F. C.



Mount Blackburn, 16,390', forms an impressive backdrop for hiking on the Root Glacier.

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 visitor activities.

Guide Services

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.



Air taxis can take you to remote locations

Fishing & Hunting

The National Park Service and the State of Alaska manage the wildlife resources of the park and preserve cooperatively. A state 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.

Access

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.

Park Roads

There are two roads into the park: the McCarthy Road (60 miles) and the Nabesna Road (42 miles). Visitors can drive the McCarthy Road or take a shuttle bus from Glennallen, Copper Center, or Chitina. A flightseeing trip or dropoff by air taxi is another excellent way to explore the park.

Yakutat

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.

Arranged For Change Arctic Warming and its consequences have worldwide implications

By John Morris AK Region Education Coordinator



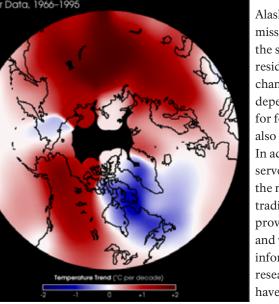
Glaciers, like the Guyot in Icy Bay (above), are shrinking in size.

THE CLIMATE OF WRANGELL- ST. ELIAS NATIONAL PARK is getting warmer, a phenomenon apparent throughout the Arctic. In the past two decades, annual average arctic temperatures have increased at twice the rate of the rest of the world. Melting snow and glaciers reveal a darker landscape that absorbs rather than reflects radiation from the sun. The land and everything living upon it is confronting change of a global nature.

In the recently published "Arctic Climate Impact Assessment," a number of key findings describe impacts already showing up in Alaskan parks. One of them is that arctic vegetation zones are changing. Treeline is moving northward and to higher elevations, replacing tundra. Insect outbreaks are more widespread and likely to occur more quickly than in the past. Glaciers are retreating, and wildfires are increasing in frequency, severity and duration.

Animal species' diversity and distribution is changing as well. Caribou and other mammals are likely to be stressed by changes that influence their access to food sources, breeding grounds, and migration routes. Species ranges are projected to move northward on both land and sea bringing new species to the arctic while limiting those

currently present. Warmer temperatures may even allow "southern" diseases such as West Nile Virus to spread into northern lands, posing real health risks to humans. Park managers are actively seeking ways to understand and adapt to these changes, both in the arctic and globally. One question being asked, "Does modern human society influence climate change?" In a report from the Intergovernmental Panel on Climate Change, an international task force asserts that "there is new and stronger evidence that most of the warming observed over the last 50 years is attributable to human activities." The dominant factor influencing the abundance of impacts and the accelerating rate of change seems to be increasing emissions of carbon dioxide and other greenhouse gases



In recent decades, temperatures have been slowly warming throughout Alaska

resulting from human activities.

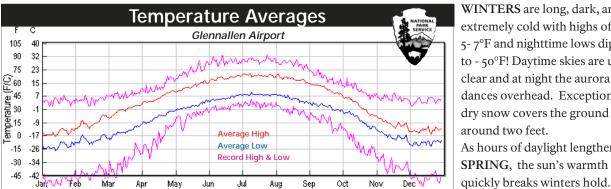
Alaska's national parks have as part of their mission, the task of preserving and supporting the subsistence life ways of its historic residents, life ways susceptible to these changes. Many of these indigenous peoples depend on the fishing and hunting, not only for food and to support the local economy, but also as the basis for cultural and social identity. In addition, could these traditional activities serve as models for how to live in balance with the natural processes around us? Certainly, the traditional knowledge and observations they provide are important sources for information and wisdom about climate change, information which compliments scientific research in verifying that substantial changes have already occurred.

Becoming aware of the world's natural processes and learning to live in balance with

them is one thing world heritage sites can teach us. Wrangell- St. Elias National Park and Preserve, Glacier Bay National Park and Preserve, Kluane National Park, and Tatshenshini- Alsek Provincial Park are members of a global community helping us understand and appreciate the significance of the world- wide changes taking place. Perhaps as you visit these parks and observe the impacts for yourself, your relationship with climate change may become clearer as well.

What's The Weather?

The high peaks of the coastal Chugach Range intercept ocean storms and provide a barrier to warmer marine air masses. As a result, with the exception of the coastal strip near Yakutat, the park has an interior dry continental climate with long, cold winters followed by short, warm summers.



WINTERS are long, dark, and extremely cold with highs of 5- 7°F and nighttime lows dipping to - 50°F! Daytime skies are usually clear and at night the aurora dances overhead. Exceptionally dry snow covers the ground to around two feet. As hours of daylight lengthen in SPRING, the sun's warmth

SUMMERS are some of the warmest and driest in Alaska with highs sometimes reaching into the 80s during June and July. But average yearly precipitation (rain+snow) is only II". Mosquitoes are at their peak during June, but usually begin to dissipate by early August. Prime backcountry season is June 20- August 20 due to snow depths at higher elevations.

FALL arrives early; willows and aspens begin to change color by mid-August. This season can be delightfully clear, spectacular, and mosquito- free, but often too short. First snows often fall in September and "stick" by late October.

Surf The Wrangells

Explore Wrangell-St. Elias from your computer!

- **Planning a Visit**
- **Current Weather**
- **Press Releases**
- **Photo Gallery** Park Maps
- **Backcountry Routes**

Commercial Services

- **Online Bookstore**
-And MUCH MORE!

Kid's Corner

Road Guides

Lesson Plans

Bird List

Management Docs



Visitor Centers

WRANGELL- ST. ELIAS NATIONAL PARK AND PRESERVE HAS VARIOUS visitor contact points. Each of these facilities is staffed by interpretive park rangers who can assist you with a variety of services. In most 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.

JOIN A RANGER



A full range of interpretive activities are offered throughout the summer. Join a ranger for a guided walk, talk, or evening program. Check the activity schedule posted at all visitor centers.

Park H.Q. & Main Visitor Center



Location

Mile 106.8 Richardson Highway (10 miles south of Glennallen, AK) 907-822-5234

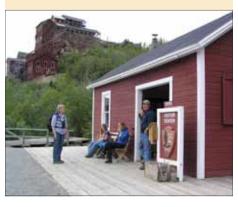
Hours

All Year: 8:00 am-4:30 pm Mon-Fri Summer: 8:00 am-6:00 pm every day

Highlights

Exhibit building, nature trail, large park relief map, park orientation film, ranger programs, bookstore, restrooms, picnic tables, trip planning, information desk, subsistence permits, public phone and internet access.





Location Historic Kennecott Mill Town 907-554-2417

Hours

Summer: 9:00 am-5:30 pm every day

Highlights

Located in historic train depot building within the Kennecott Mill Town. Exhibits, park films, trip planning, trails, backcountry information, ranger programs, and bookstore.



Park Headquarters is an excellent place to begin your discovery of Wrangell-St. Elias

Slana Ranger Station

Location

Hours

Highlights

phone, restrooms

907-822-5238

Mile 0.2 Nabesna Road

Winter: call for hours

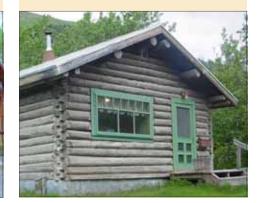
Summer: 8:00 am-5:00 pm every day

Park Information, trip planning, exhibits,

ranger programs, park orientation, ATV per-

mits, subsistence permits, bookstore, public

Chitina Ranger Station



Location

Chitina, Mile 33 Edgerton Highway 907-823-2205

Hours

Summer: 2:00 pm-6:00 pm Friday-Monday *Hours may vary*

Highlights

Historic log cabin. Park information, trip planning and McCarthy Road updates. Staffed with assistance from Chitina Chamber of Commerce.

McCarthy Road Info Station



Location Mile 59 McCarthy Road (1/2 mile before the end of the road)

Hours Summer: 9:30 am-5:00 pm every day

Highlights

McCarthy-Kennecott area trip planning, maps, and information on local services. Free day-parking.

Yakutat Ranger Station



Hours All year: 8:30 am-4:30 pm

Location Mallot Avenue, Yakutat 907-784-3295

Highlights

Exhibits, information, park video, bookstore, and trip planning.



Hey Kids! Become A Wrangell-St. Elias

Junior Ranger

If you are between the ages of four and twelve, you can become a Wrangell-St. Elias National Park & Preserve Junior Ranger! Stop by one of the visitor centers in the park or ask a park ranger for the Junior Ranger Activity book. Complete the required sections, state the official pledge, and you will earn your own badge and certificate.

Throughout the summer, park rangers often present special programs for children. You may get to learn about forests, moose, salmon, or even volcanoes! Ask at a visitor center about any upcoming special Junior Ranger programs.

If you cannot visit the park in person and you have internet access, you can become a Web Ranger. Visit the park website at www.nps.gov/wrst



Reaching Across Boundaries

The Earth's Largest International Terrestrial Protected Area, a World Heritage Site

HERE IN THIS VAST OPENNESS, the silence, the solitude, and peace of mind are broken only by natural sounds; wind, water, a raven call. On the Bagley Ice Field, as far as the eye can see, towering peaks stab through thick ice. No wonder, as the Bagley is North America's largest icefield and part of the world's largest non-polar ice field. North America's longest mountain glacier, the Nabesna, winds sinuously 75 miles through a mountain gauntlet. Over 100 miles to the south, the surging Hubbard Glacier rivals the Nabesna as one of the world's longest glaciers. A hop, skip, and an international boundary jump from Alaska's Hubbard Glacier, in the Tatshenshini- Alsek area, over 31 other surging glaciers and 350 valley glaciers grind inexorably seaward. Even when the leviathan Malaspina Glacier is viewed from a jetliner, this largest piedmont glacier in North America, larger than Rhode Island, defies our capacity to comprehend its dimensions.

Everywhere giant ice- capped peaks tower; this is the highest concentration of peaks over 16,000' in North America. Mt. St Elias (18,008') in the United States and Mt. Logan (19,545') in the Yukon Territory crown the St. Elias Range as two of the highest three peaks in North America. Mt. Logan amasses more vertical relief than Mt. Everest. Some 250 miles south, Mt. Fairweather, the highest peak in British Columbia, towers above 60 mile long Glacier Bay, where Steller sea lions, harbor seals, killer whales, harbor and Dall porpoises, sea otters and humpback whales thrive. Only 200 years ago, the bay was but five miles long, the rest completely filled up to 4,000 feet thick with the Grand Pacific Glacier.

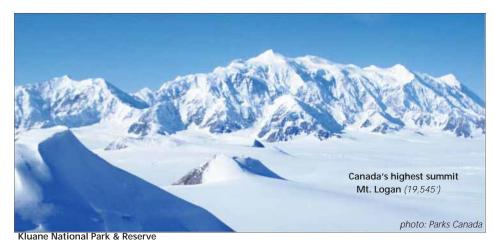
What do all of these superlatives have in common? They all are found within the sprawling Wrangell- St. Elias, Kluane, Glacier Bay and Tatshenshini- Alsek World Heritage Site. This land, while international in jurisdiction, appears as a seamless tapestry of ice, rock, flora, fauna, and cultural history when experienced personally. What does it mean to be a World Heritage Site? Where did it all start?

UNESCO established the World Heritage international program in 1972, governed by the 21- country World Heritage Committee, to identify, protect, conserve and present the world's irreplaceable natural and cultural heritage. As of 2005, there were 812 sites approved and the 177 countries belonging to the World Heritage Convention.

For a site to be considered as a world heritage site, it must be judged of outstanding universal value important internationally to humanity as a whole. It must also meet demanding cultural or natural criteria.

Kluane National Park in Yukon Territory and Wrangell- St. Elias National Park and Preserve in Alaska were proclaimed a World Heritage site in 1979; Glacier Bay National Park and Preserve, in Alaska, was added in 1992 and Tatshenshini- Alsek Provincial Park, in British Columbia, in 1994. The combined total area, 24.3 million acres, forms the largest international terrestrial world heritage site and protected area on earth.

World Heritages Sites are important to the United States and Canada as storehouses of memory for earth's natural and cultural evolution, anchors for sustainable tourism and community benefits, and as laboratories to study complex ecosystems and develop strategies to improve the global environment. Most importantly, they are an instrument of peace.





Wrangell-St. Elias National Park & Preserve



Glacier Bay National Park & Preserve



Wrangell-St. Elias National Park & Preserve



Tatshenshini-Alsek Provincial Park

B. Kirkby



By Smitty Parratt Chief of Interpretation



The following are selected points of interest along the Nabesna Road. The mileage begins at the intersection of the Tok Cutoff and the Nabesna Road and is based on actual odometer readings

0.0 Junction of the Glenn Highway (Tok Cutoff) and Nabesna Road

0.2 **Slana Ranger Station**

Visitors will find information about the park and local area, exhibits, and ranger lead activities as well as an Alaska Natural History Association book store. Always check on road conditions before beginning your journey.

1.0 Original Slana Roadhouse (now private property)

The Slana Roadhouse is visible on the south side of the road. This structure was built in the 1930s, but there has been a roadhouse here since 1912. This roadhouse is one of the few that remain of those that served travelers on the trail from Gakona to Chisana, the site of Alaska's final gold rush, and is now listed on the National Register of Historic Places.

1.7 Slana River Access & Primitive Campsites

Rafters often begin trips down the Copper River here. The confluence of the Copper River and the Slana River is less than a mile downstream. The Slana River begins in the Mentasta Mountains, seen to the north. Look for Noyes Mountain (8,235'), the highest in the Mentasta range. The summit is located along the park's northern boundary.

4.0 Junction with "4-Mile" Road - Gravel surface begins

" 4-Mile" Road leads into the Slana Settlement, created in 1983 when the BLM opened over 10,000 acres north of the road to homesteading. It was one of the last opportunities for homesteading federal land. Eight hundred claims were filed, but most were soon abandoned. Alaskan winters took their toll. Many tried to live in hastily built cabins and tents, with temperatures down to -60°F. Jobs were scarce and the climate was not suited to farming. Only a little over a hundred claims were eventually patented. Today, about 50 people live in the settlement.

6.1 Rufus Creek primitive campsite (picnic table)

12.2 Copper Lake Trailhead & primitive campsite (picnic table)

This is a 12 mile trail with access to Copper Lake. Copper Lake has opportunities for Lake Trout, Grayling, and Burbot fishing. The first 2.5 miles are suitable for hiking, then the trail crosses Tanada Creek which can be high and fast and trail conditions deteriorate. Recreational ORV permits are required and available at the Ranger Station.

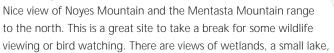
- 15.0 Views of the Wrangell Mountains
- to 18.0



Over the next few miles, enjoy the splendid views of high snow-clad volcanoes of the Wrangell Mountains. Mt. Sanford (16,237') is the tallest mountain that can be seen from the Nabesna Road (and the 5th highest peak in the U.S). To the left of Sanford is the rounded, icy dome of Mt. Wrangell (14,163'). It is the park's only active volcano and occasionally steam can be seen rising from the summit. Wrangell's broad sloping profile is an excellent example of a shield volcano. The jagged summits of Tanada Peak to the left of Mt. Wrangell and Capital Mountain to the right of Mt. Sanford are actually highly eroded remnants of once massive shield volcanoes.

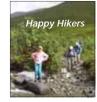
16.6 Kettle Lake primitive campsite (picnic table)

17.8 Dead Dog Hill Rest Area & primitive campsites



and boreal forest. Moose are often seen here and Caribou migrate through this area in the spring and fall. During spring and summer, look for nesting ducks and trumpeter swans.

19.2 Caribou Creek Trail



Park at the gravel pit at mile 18.9. The trailhead is at mile 19.2. This is an excellent hiking trail. The trail is approximately 3.5 miles long and offers awesome views of the Wrangell Mountains and the tangles of lakes and rivers below. You could easily make this a longer trip by following game trails or striking out on your own. Recreational ORV permits are required and available at the Ranger Station.

- 21.8 Rock Lake primitive campsite & rest area (outhouse, picnic table, trash bin) Access to Viking Lodge Public Use Cabin (Arrange a stay through Slana Ranger Station 822-5248)
- 24.7 Watershed Divide (3,320ft)

You have reached the highest point on the Nabesna Road, and crossed a major watershed divide. All waters flowing west and south from the divide are carried by the Copper River to the Gulf of Alaska. All waters flowing to the east enter the Nabesna River, the Tanana, the Yukon, and ultimately the Bering Sea.

27.8 Twin Lakes Camp Area (picnic tables, outhouse, trash bins) Several picnic tables, an outhouse, fire rings, and ten informal campsites provide a nice spot for primitive camping. Twin Lakes is a great place to fish and view wildlife. A hike of about a half mile to the south and over



the ridge will take you to Jack Lake and more beautiful views of the Wrangell Mountains.



BEFORE YOU CONTINUE Road conditions can deteriorate beyond Twin Lakes. Trail Creek (Mile 29), Lost Creek (Mile 30.8), and Boyden Creek (Mile 34.3) may be flowing across the road. Generally, these creekbeds are dry, but during spring run off or following prolonged rain, high-clearance and occasionally four-wheel drive may be necessary. Carefully evaluate all crossings before driving across.

35.3 Jack Creek Rest Area (picnic tables, trash receptacle, outhouse)

Several nice campsites with picnic tables and fishing along Jack Creek.

Dall Sheep

Wrangell-St. Elias contains one of the largest concentrations of Dall sheep in North America - some 15,000 sheep in more than 3 million acres of habitat.

Dall sheep are found in habitat consisting of high altitude ridges, meadows, and extremely rugged "escape terrain." Sheep use these areas for feeding, resting, and to escape predators. Although they usually stay at higher elevations, in this area they are known to descend to springs and mineral licks and even cross the road. Careful observers can usually spot small flocks on the mountainsides over the next few miles.

36.2 Skookum Volcano Trail Hiking trail only.

The Skookum Volcano Trail/route is 2.5 miles one-way to a beautiful high pass. This trail leads through an extinct, deeply eroded volcanic system with fascinating geology. The elevation at the trailhead is 3,000' and rises to an elevation of 5,800' at the pass. Hikers can easily explore other routes or expand this hike into a multiple-day trip.



40.2 **Reeve Field Trailhead**

This is a multiple use trail (4.5 miles) with access to the Nabesna River. During 1941, trucks hauled equipment from Valdez to a rustic strip along the river. Pilot Bob Reeve cut everything into pieces, loaded it into his Boeing Trimotor, flew them to Northway, about 40 miles north, and then had them re-welded. This effort was organized to build the Northway Airport, a critical stopover in ferrying lend-lease aircraft to the Soviet Union during WWII. By November, he had transported all the materials for a full-scale airport. It was good timing. One month later, the Japanese attack on Pearl Harbor gave Northway new relevance, and it became a critical element in the defense of Alaska.

42.0 End of maintained road



From here on, the road provides access to private lands at Nabesna Mine, and is not regularly maintained. Miles 42 to 46 of Nabesna Road make for interesting hiking. Park at Reeve Field Trailhead (Mile 41) and walk from there or arrange for parking at Devil's Mountain Lodge. Devil's Mtn. Lodge Approximately 1/2 mile from the lodge, a trail leads south to the abandoned Rambler Mine, active after WWII, but never patented, and now part of the park.

46.0 Nabesna Gold Mine

Carl Whitham staked the claims that became Nabesna Gold Mine in 1925. The mine operated until 1945. By that time over 73,000 tons of gold ore valued at \$1,870,000 had been shipped to the Tacoma, Washington smelter. Limited, small scale mining has occurred since that time. Nabesna Mine is still privately owned.

Now That You're Here...What Should You Do?

One Day

Begin your visit by stopping by the **Headquarters Visitor Center**, located 10 miles south of Glennallen. Explore the **exhibits**, browse the bookstore, stroll the short nature trail, see the Wrangell Mountains, and enjoy the 20- minute **park movie**. Park Rangers are available to help you discover the park and surrounding area. For spectacular views, drive the Edgerton Highway to the historic town of Chitina (*50 miles*). Along the way, stretch your legs on the Liberty Falls Trail and enjoy a panorama of the park's high peaks. After exploring Chitina, continue to the bridge over the mighty **Copper River** where you can watch busy Alaskans harvesting salmon with traditional fishwheels and dipnets.

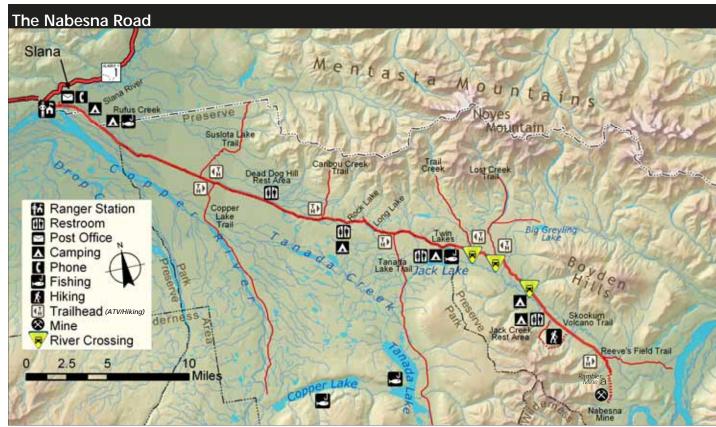


3 Days

With more time to spend, you can explore the major roads more thoroughly and still have time for some **hiking** (*pg. 12*). A drive along the **Nabesna Road** (*pg.7*) will take you to remote corners of the park with great camping, hiking, and wildlife viewing. A trip along the **McCarthy Road** (*pg. 8*) allows for leisurely explorations of a rural Alaskan town, and the **Kennecott Mines National Historic Landmark**. (*pg. 11*). An easy hike along the **Root Glacier Trail** brings you up close and personal with the area's rich history, and the mighty river of ice. More strenuous hikes lead to the mountainside Bonanza and Jumbo Mines. Join a **local guide/outfitter** service for glacier hikes, mill building tours, river float trips, and flightseeing excursions.

One Week

With a week or more to spend, the whole park is open to you. You will have time to enjoy all of the above, but also to visit more remote locations. The **backcountry** of Wrangell- St. Elias is some of the world's most spectacular **wilderness** (*page 12*). A short flight on an air taxi from Nabesna, Glennallen, Chitina, or McCarthy can transport you into the heart of the park, where hiking and camping possibilities are virtually endless. Stop by any park visitor center to discuss potential trips with a park ranger.



The Road Less Traveled Exploring Nabesna Road

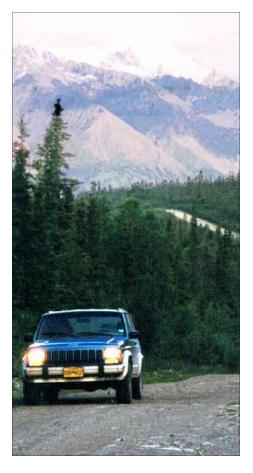
THE NABESNA ROAD OFFERS A UNIQUE OPPORTUNITY TO EXPLORE INTERIOR ALASKA AND THE NORTHERN reaches of the park. The road begins at mile 60 of the Glenn Highway (*Tok Cutoff*), and soon becomes gravel as it winds 42 miles into the park. The drive is an adventure in the midst of the Wrangell, Mentasta, and Nutzotin Mountains. Along the way, 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 maybe right for you.

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 less visited northern part of the park offering the chance to experience true Alaska wilderness.

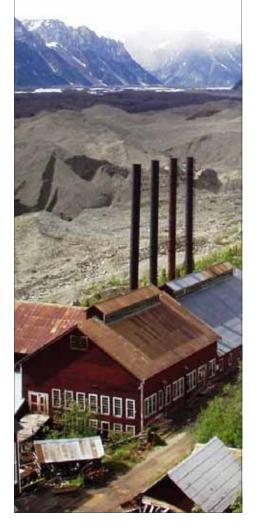
Before beginning your trip, stop at the Slana Ranger Station to check on current road conditions. Generally, the road is passable by any two- wheel drive vehicle, even most RVs. At times, high clearance and four- wheel drive are recommended beyond Mile 29, where you encounter the first of three creek crossings. Following spring runoff or a heavy rain, these intermittent stream crossings can have high water and deep channels. Please be aware that private property adjoins many parts of the road and that the Nabesna Mine is private. Information on federal land access and private property locations is available at park visitor centers.

Nabesna Road Basics

- Begins at mile 60 of the Glenn Highway (Tok Cutoff)
- 42 miles, EACH WAY
- This is a remote area with limited services. NO FUEL available in Slana. Fill up either in Chistochina (20 miles south) or Mentasta (15 miles north).
- Drive slowly, carefully, and courteously.
- Carry a full-sized spare and an adequate jack.
- Private land adjoins many parts of the road.



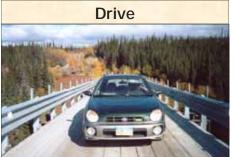
Kennecott & McCarthy



Getting There is Half the Fun!

Majestic mountains, merging glaciers, and rich, fascinating history await visitors to this beautifully rugged oasis of civilization, nestled in the midst of the Wrangell Mountains.

Today, a visit to Kennecott and McCarthy is an awe- inspiring scenic adventure and a step back in time. Whether meandering the dirt streets of quaint McCarthy, absorbing the enriching history of Kennecott, or exploring the nearby glaciers and ridges, it's an unforgettable Alaskan experience that you won't want to miss!



Following in the path of the Kennecott ore trains, the gravel McCarthy Road extends 60 miles from the town of Chitina to a pedestrian bridge at the Kennicott River, near McCarthy. Allow for 3 hours each way. Although most vehicles are adequate for the journey, those in excess of 24 feet in length are discouraged. Always get a road update before heading out. Please note that the town of Chitina is your last opportunity for fuel. A full- sized spare tire is highly recommended.



Two services provide daily shuttle vans between Glennallen and McCarthy. Vans depart each morning, arrive around noon, and return again that day.

Backcountry Connection (Departs from Glennallen) www.kennecott- shuttle.com I- 866- 582- 5292

Mountain Kingdom Express (Departs from McCarthy) www.mountainkingdomeexpress.com 907-554-4457



Based in McCarthy, *Wrangell Mountain Air* provides three scheduled flights between Chitina and McCarthy on a daily basis. For further information phone I- 800- 478- 1160.

Other flight services which offer regular charter flights to McCarthy include: *McCarthy Air* (907)- 554- 4440, and *Ellis Air Taxi* I- 800- 478- 3368

The Basics

- Begins at mile 33 Edgerton Highway at Chitina.
- 60 miles, 3 hours EACH WAY
- NO FUEL available past Chitina.
- Drive slowly, carefully, and courteously.
- Carry a full-sized spare and an adequate jack.
- There are restaurants in McCarthy, but no supplies or groceries.
- Camping is permitted, but not on private lands.
- Most people spend a minimum of two days exploring the area.

The McCarthy Road

Gateway to Adventure!

The 6o- mile McCarthy Road winds deep into the heart of Wrangell- St. Elias. Once the gateway to tremendous fortunes, it is now your gateway to spectacular scenery, vast wilderness, and adventure. For those willing to leave the pavement behind and brave the ruts and dust, this road provides access to the many natural and historic wonders of our largest National Park.

Born On Rails

Today's road originated in 1909 as a railway constructed to support the Kennecott Copper Mines. Over 200 million dollars worth of ore was hauled from the Kennecott mill 196 miles to the port of Cordova. When large scale mining ended in 1938, most of the rails were salvaged for scrap iron, and no longer maintained, the bridge over the Copper River was soon destroyed by flooding. In 1971 a new bridge was constructed over the Copper River, and the rail bed was covered with gravel, creating today's road surface.

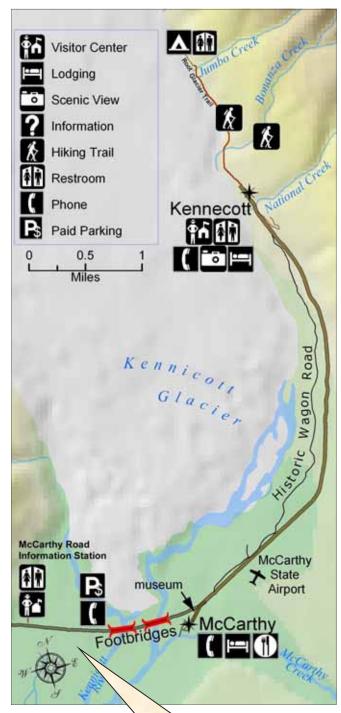
What To Expect

Narrow and winding, the road still reflects its railway origins. In places, remnants of railroad ties may surface, along with the occasional spike, creating unexpected hazards. Please drive slowly, carefully, and courteously. Although traffic and weather often result in ruts and washboarded surfaces, under normal summer conditions, most passenger vehicles can make the trip. Please allow faster vehicles to pass by using turnouts. Soft shoulders have led to numerous accidents and vehicle damage.

A Park Service Information Station is located near the end of the road. Park Rangers can assist you with trip planning and area information. The road ends at the Kennicott River, a half- mile short of McCarthy and five miles short of historic Kennecott. Public parking is limited but additional parking is available from private vendors. Cross the footbridge over the river, then continue on foot, by bicycle, or shuttle (see "*The End of the Road*" page 10)

The End of the Road...Now What?

Once you've successfully negotiated the 6o- mile McCarthy Road, your adventure in many ways is just beginning. The road ends at the banks of the raging Kennicott River. The town of McCarthy lies one mile beyond, and the Kennecott Mines National Historic Landmark is another five miles up the old railroad grade. It can be confusing. Where should I park? Is there a shuttle? Where can I camp? We suggest making the McCarthy Road Information Station your first stop.

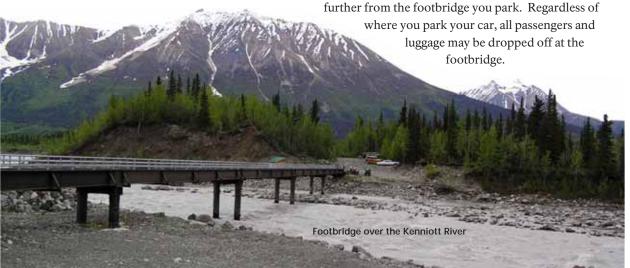


McCarthy Road Information Station

Upon arrival, up to date information on parking, shuttles, Kennecott, McCarthy and park activities can be found at the McCarthy Road Information Station. Located at Mile 59 McCarthy Road, this site also has day- use parking and restrooms. Park Rangers are available to assist you plan a visit to McCarthy and Kennecott.

Parking

Free public day- use parking is available at the McCarthy Road Information Station. Overnight parking is available for a fee in one of several private parking lots near the end of the road. Generally, parking is less expensive the



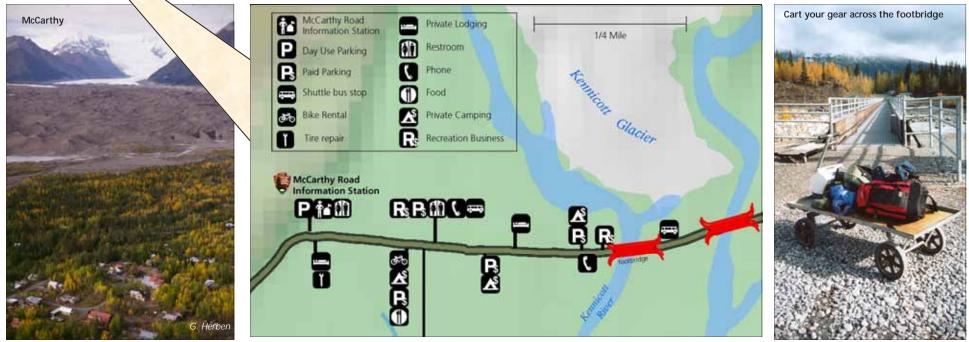
Kennicott River Footbridges

Two footbridges span the east and west channels of the Kennicott River. Except during the annual glacial outburst flood, the east channel is dry and the road travels through its bed. To cross the footbridges, drop off passengers and luggage directly in front of the footbridge. There, you will find hand carts to help haul your luggage across the river.

Shuttle Service

Private companies operate shuttle services from the footbridge to McCarthy and Kennecott. Current shuttle schedules can be found at the McCarthy Road Information Station, the shuttle stop and other locations around town. Walking to the shuttle stop and purchasing your ticket directly from the next shuttle to arrive, rather than purchasing tickets from vendors on the west side of the Kennicott River, may be the most efficient way to arrange transportation. Shuttle tickets are approximately \$5/one- way.

Lodge Guests: Lodges on the other side of the river generally provide transportation for their guests. Follow the lodge's directions for contacting them.



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.



Explore the Kennecott Mill Town in the heart of Wrangell-St. Elias National Park

By the late 1920s, the supply of high- grade ore was diminishing, and Kennecott Copper 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 then, the corporation was on the way to becoming a multinational giant.

History Brochure Available

While visiting historic Kennecott, stop by the National Park Visitor Center and pick up a copy of *"The Kennecott Story."* This free



pamphlet is a great source of information on the discovery, development, and human history of the Kennecott mines.

Discover the fascinating history of these weathered red buildings through the

words of miners, administra-

tors, and even the children

who lived and worked in this isolated company town.

The included map is a valuable resource in deciphering the many buildings and structures that still remain.

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.

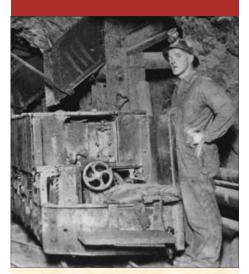
The National Park Service, along with the local community and Friends of Kennicott, has engaged in an ongoing planning effort to identify buildings that will be stabilized or rehabilitated, and those that will not receive any attention at all. The goal is to protect the historic integrity of the mill town so that future generations will also be able to explore Kennecott

A few buildings will be rehabilitated for modern use. The Recreation Hall was completed in 2004. It is used for educational programs and community events. The Store and Post Office will serve as the future visitor center. Several other buildings are currently receiving repairs to roofs, foundations, and walls. Throughout the mill town you will observe lots of activity throughout the summer.

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.

Watch Your Step!

By Megan Richotte Kennecott District Interpreter



The Kennecott Mill Town is fascinating and almost begs for exploration. However, it is an abandoned industrial site and hidden dangers abound. <u>Please keep children under</u> <u>close supervision</u>.

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.

Crews work to stabilize Kennecott's oldest structure, the General Manager's Office

Hiking & Backpacking

"New beauty meets us at every step in all our wanderings" John Muir



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 ready to assist you with all aspects of planning a backcountry trip, including selecting an appropriate route and logistical details. Stop by any visitor center to begin your backcountry discovery.

- CHOOSE A ROUTE that is within your ability.
- PACK appropriate gear including specialized equipment such as crampons for glacier travel. Plan for delays by packing extra food and supplies.
- WILDERNESS SURVIVAL SKILLS including compass & map reading are vital to your safety. Don't rely on gadgets. Your cell phone won't work in much of the park and any GPS may malfunction. Help may be days away, 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.*
- 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 much higher risk for accident and injury.
- EXPLOSIVES and other hazards may be 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.



Day Hiking

Even if you don't have the time for an extended backpacking trip, there are still many great places to stretch your legs and explore the park and surrounding area. The following is a small sampling of shorter hikes and easier walks found in various parts of the park. Ask a ranger for more details on these routes, or to learn about even more hiking opportunities.

Along Main Roads



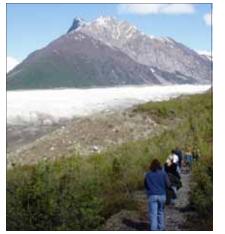
Nabesna Road



Trail	Roundtri Length		Trailhead Location
Boreal Forest Nature Trail	0.5 mile	Level, partly paved, and handicap-accessible loop. Great mountain views and Forest habitat.	Wrangell-St. Elias Visitor Center 10 miles south of Glennallen
Aspen Interpretive Trail (Glennallen Community Trail)	1.0 mile	Nice trail through an aspen/spruce forest and meadows. Constructed by community volunteers and students.	Mile 0.25 Co-op Road, in Glennallen, AK.
Tonsina River Trail	2.0 miles	Easy hiking to a bluff above the Tonsina River. Good trail for wildflowers and birdwatching.	Mile 12.3 Edgerton Highway,
Liberty Falls Trail	2.5 miles	Hike through forest to spectacular views of the Wrangell and Chugach Mountains. Camping nearby.	Mile 24.8 Edgerton Highway, 100 yards before Liberty Falls campground
Old Copper River Railway (Remains of the CR & NW Railroad)	varies	State right-of-way follows the remains of the railway along the Copper River. Great hiking & biking. Passable for 20 miles.	South from Chitina along the O'Brien Creek Road.

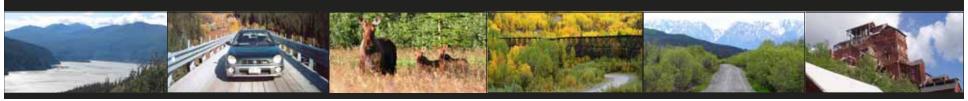
Trail	Roundtri Length		Trailhead Location
Caribou Creek Trail	8.0 miles	Easy hiking through forest and tundra. Watch for wildflowers, wildlife, and great views of surrounding peaks.	Mile 19.5 Nabesna Road
Skookum Volcano Trail	5.0 miles	Trail climbs 2,500' through intricate volcanic geology. Watch for Dall sheep and alpine plants. Panoramic views.	Mile 36.8 Nabesna Road
Fishwheel Trail	2.5 miles	Easy walking through boreal forest to the banks of the Copper River. Watch fishwheels in action and enjoy great views.	Slana Ranger Station, Mile 0.2 Nabesna Road

McCarthy Road- Kennecott Area



Trail	Roundtrij Length	o Comments	Trailhead Location
Crystalline Hills		Forested loop trail that reaches the base of rocky cliffs. Views of the Chitina valley and Chugach Mountains.	Mile 35.8 McCarthy Road
McCarthy Walking Tour		Pick up a guide at the McCarthy Museum. Set your own pace for exploring an Alaska railroad and mining boom town.	McCarthy, Alaska
Kennecott Walking Tour		Pick up a guide at the Kennecott Visitor Center for a tour of the National Historic Landmark's buildings and history.	Kennecott Mill Town
Root Glacier Trail		A great day hike with access to the Root Glacier and splendid views of surrounding mountains.	Kennecott Mill Town
Bonanza Mine		Follow an old road up to the mine remains. Views and inter- esting history await you. (3,800' climb)	Kennecott Mill Town

McCarthy Road Guide



Chitina

Pronounced, "Chit-Na," this railroad town sprang to life in 1910. Quiet today, this town was once bustling as the major stopover and service point for the trains that carried ore from Kennecott to waiting ships in Cordova. Restrooms and informational panels can be found at the downtown wayside. During the summer months, the historic Chitina Ranger Station provides

road updates and park information. Be aware that Chitina is the last chance to obtain fuel and supplies before you enter Wrangell-St. Elias.



Copper River Bridge

Several small pullouts here provide great views of the confluence of the mighty Copper and Chitina Rivers. The Copper is the only waterway that cuts through the rugged coastal Chugach Mountains. At this point the Copper is about 1/2 mile wide, while the width of the Chitina is over one mile!

As you cross the bridge, you will notice that these rivers are dirty...but they are not polluted. These flowing waters begin as flowing "rivers of ice." Millions of tons of rock dust are scoured



off of distant mountains by glaciers and carried downriver each year. The resulting silty waters hide salmon swimming up these rivers to spawn.

Copper River "Reds" (*sockeye salmon*) are world renowned. In summer, look for busy Alaskan residents catching red, silver, and king salmon with dip nets and fishwheels. How well do you think

these fishing methods would work in a crystal clear river?

The large snow covered mountain visible to the north is volcanic Mount Drum (12,010'), part of the Wrangell Mountains.

The McCarthy Road begins as you cross this bridge

Look for the mile-marker posts and follow along with this guide

Mile Chitina River Scenic Vista

5.0 Stop here and enjoy the view. The Copper and its tributaries (including the Chitina) drain an area of approximately 24,000 square miles. Much of this drainage basin lies within Wrangell-St. Elias National Park & Preserve and almost 17% of it is covered by glaciers. Because of this glacier influence, high water in the Copper River typically occurs not during the snowmelt of spring, but during summer hot spells that cause rapid melting of ice. Low water usually occurs in late winter when everything is frozen. The Chitina River is a popular rafting trip from McCarthy. Several rafting companies operate out of McCarthy.

¹⁰ Strelna Lake Trail

A small pullout on the left provides access to a 1/2-mile trail to StreIna Lake. The Alaska Dept. of Fish & Game stocks this lake with rainbow trout.

10.7 Silver Lake

On the right is Silver Lake Campground. RV/tent camping, tire repair, boat rentals, snacks, and trophy rainbow trout fishing. This is a popular spot to leave larger RVs and continue on with a tow vehicle.

14.5 Backcountry Trailheads

The access road on the left leads 2.5 miles to the trailheads for Nugget Creek and Dixie Pass. These primitive routes offer abundant wilderness adventure. Ask a park ranger for more information and route descriptions. Nearby Strelna was once a bustling supply stop along the railway and provided support for area mines.

17 Kuskulana Bridge

A spectacular achievement, the Kuskulana Bridge was constructed during the winter of 1910. Imagine riding high in a heavily loaded ore train across the two icy rails. Perched 238 feet above the raging Kuskulana River, this single-lane railroad bridge still remains for many, the most hair-raising part of the entire drive.

18.5 "Hug-A-Boulder Bend"

Remember, this was once a railway! Watch for the blind, hillside curve with no room to pass. This is no place for an accident. Please *proceed slowly* and be prepared to back up if necessary.

29 Gilahina Trestle

A classic reminder of a bygone era, this wooden structure was originally 890 feet long and 90 feet high, required one-half million board feet of timber, and was completed in eight days in the winter of 1911. Due to the rugged landscape, over 15% of the entire railway was built on trestles such as this.



Historic Trestle

34.7 Crystalline Hills Trail

A trailhead on the left marks the start of this 2.5 mile loop trail through dense spruce forest to the base of the Crystalline Hills and a nice view of the Chitina River Valley.

45.2 Long Lake

Each year, an average of 18,000 sockeye salmon struggle up the silty Copper and Chitina Rivers to spawn in the clear waters of this lake. This salmon run is unique in that salmon begin entering the lake as late as September and spawning continues all winter into April. A spring along the lake's far side keeps some of the surface unfrozen, and this is where carcasses of spawned salmon provide a rich food supply for hungry winter predators such as ravens, mink, fox, lynx, wolves, and coyotes.

57.5 McCarthy Overlook

A pullout on the right provides the first view of the town of McCarthy and the toe of the Kennicott Glacier. The Kennicott River emerges from beneath the glacier and swiftly flows along the western side of town to join the Nizina, which eventually runs into the Chitina.

59 National Park Service Information Station

Stop Here! • Restrooms • Daily Parking • Information • Trip Planning

Stop Here! The McCarthy Road Information Station is open daily during the sum-

- estrooms mer. Park Rangers are available to answer questions about the area and
- **Daily Parking** help plan your visit to McCarthy/Kennecott. Pick up a map and inquire about parking options, transportation on the other side of the river,
- *Trip Planning* guides and services available, and any local events.

60 Kennicott River-Road's End

You've made it to the end of the road, but in many ways, your adventure is just beginning. See "End of the Road," page 10 to explore your options.

McCarthy

Homesteaded in 1906, McCarthy quickly grew into a lively community with a story all its own. McCarthy served as the supply and recreation stop for the entire Kennecott mining district. Town history is well portrayed by the local museum and guide services. Today, McCarthy retains much of its original flavor thanks to landowners who have preserved and restored historic buildings for use as businesses and private homes. Accommodations, dining, guide services, and air taxis are just some of the services available here.

Kennecott Mines National Historic Landmark

Like a time capsule, the impressive structures and artifacts left behind when the mines were depleted represent an ambitious time of exploration, discovery, and technological innovation. Currently, the National Park Service is stabilizing and restoring many of the old buildings.

A National Park Service Visitor Center is located within the Kennecott Mill Town. Park Rangers and local guide services conduct history programs and building tours daily. This area is

overflowing with history. Trails lead to the Root Glacier and several mountainside mines.



Be Bear Aware

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 using bear- resistant storage containers. Never store them in your tent.
- •Cook and store food at least 100 yards from your tent.

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 allowed in Wrangell- St. Elias, but should *never* be used as an alternative to common- sense approaches to bear encounters. If you are inexperienced, you are more likely to be injured by a gun than a bear, and any 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.

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, do not play dead, fight back vigorously.





While backpacking, store all food items in a Bear Resistant Food Container. BRFC's are available for checkout at park visitor centers.

FOOD STORAGE

Appropriate food storage is required in Wrangell- St Elias National Park and Preserve. You can borrow bear- resistant containers (BRFCs) at park visitor centers for backcountry use. A refundable deposit is required.

Keep all food and cosmetics in the BRFC when not in use. Place any snacks, wrappers, lip balm, sunscreen, etc. that were used while kayaking or hiking into the BRFC before entering your tent. At night, store your BRFC and clean cooking gear off of main animal trails, and at least 100 yards from your tent and hidden in thick brush or behind rocks. Prepare and consume food at least 100 yards from your tent site and food storage area. Try to select cooking areas where you can see a comfortable distance to minimize the risk of a surprise encounter with a bear passing through the area.



River Crossings

Challenging conditions make river crossings one of the most hazardous elements of backcountry travel in this park. These crossings can be VERY dangerous without preparation, patience, and **planning**. You must evaluate conditions at each river crossing. Never let a deadline rush you into making a poor decision, and always be willing to turn back or wait for a more suitable time if a crossing seems too risky.

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:

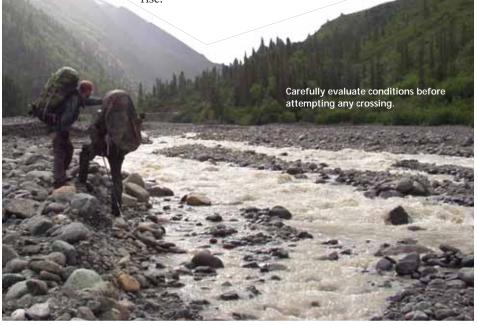
These rivers are fed by glaciers and volume can fluctuate dramatically. The safest time to cross is during the cool hours of early morning. As the day progresses, sunlight and warm tem-

peratures 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.

Remember: If a crossing appears too risky... *It probably is!*



Alaska Natural History Association

The Alaska Natural History Association is a bookstore, publisher, educator, and supporter of Alaska's public lands. As the nonprofit educational partner of Alaska's parks, forests and refuges, we are dedicated to sharing Alaska's rich natural and cultural heritage. Look for our bookstores at park visitor centers and ranger stations (*pg. 3*). Your purchases directly support a variety of educational and interpretive activities here at Wrangell- St. Elias.



Join, Save, Support

Join the Alaska Natural History Association and save 15% on Alaska books. Your membership entitles you to savings at our 34 stores and on purchases through our online bookstore. You save money while doing something great for Alaska. By joining, you are making a direct contribution to Alaska's public lands partnered with Alaska Natural History Association. Sales proceeds are combined with membership gifts to support educational programs across Alaska.

Benefits-

- 15% discount at all Alaska Natural History Bookstores.
- 10% discount on most programs offered by the Alaska Natural History Institutes.
- Handsome cloisonné enamel pin with raven-bear image
- <u>Northern Migrations</u> newsletter and Annual Reports
- Credit for a tax-deductible gift
- Discounts at visitor center bookstores operated by cooperating associations throughout the U.S.
- Vital support for the most spectacular lands in Alaska



Bookstore:

Located in visitor centers across Alaska, our bookstores offer quality educational materials. Revenue from sales are turned right back into programs at the public land where the funds were earned.

Educator:

Experiential education classes are offered through our Institutes. These programs vary from half- day excursions to threeweek college field courses. All courses are accredited, including teacher trainings designed for K- 12 educators.

Publisher:

Since 1962 we have produced hundreds of books and products focused on Alaska. Our unique titles fill information gaps focused on Alaska. Visitor guides and other publications are published annually to offer critical and up- to- date information to the public.

Supporter:

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 click on over to **www.alaskanha.org**

Featured Selections

Visit the Alaska Natural History Association bookstores located at visitor centers throughout the park to find these useful items. In addition to books, you will also find a wealth of maps, journals, and field guides, all carefully selected to help you enjoy your visit. Stop by any park visitor center or shop online at www.alaskanha.org

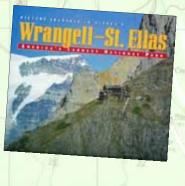


Trails Illustrated Topographic Map

Produced by National Geographic, this is a waterproof and tear resistant topographical map of the whole park. Popular routes marked. The perfect map for planning your park adventure. Scale 1:375,000 \$9.95

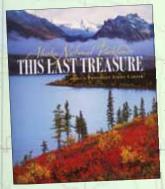
Picture Journeys in Alaska's Wrangell-St. Elias

Over 13 million acres of stunning mountains, lakes, glaciers and rivers lie at the heart of America's largest national park. This pictorial essay takes you to the far corners of this massive park. \$24.95



This Last Treasure: Alaska National Parklands

Originally published in 1982 to celebrate the new and expanded Alas-



kan parks, this re-release is in honor of the 25th anniversary of the Alaska National Interest Lands Conservation Act (ANILCA). With fresh photographs and a new elegant design, this book is a keepsake for anyone who loves Alaska's national parks. 192 full-color pages, \$24.95



Mountain Wilderness

An Illustrated History of Wrangell-St. Elias National Park & Preserve. From the earliest inhabitants, to the mining days, to formation of the park. Take an exciting journey through the fascinating history of this awesome land. \$19.95

Hiking in Wrangell-St. Elias National Park

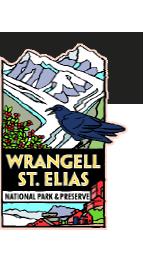
A rugged wilderness with few amenities and fewer maintained trails, this the place for true backcountry adventurers. This popular guidebook provides hikers with enough information to plan a backcountry excursion of their own based on goals and skill levels. \$15.00



Crown of the Continent: DVD

Recently featured on PBS, this is the award winning film shown in the main park visitor center. Breathtaking scenery, music, and narration combine to highlight the amazing size and beauty of this national treasure. DVD Includes bonus feature on the history of the Kennecott Mill. \$14.95





Copper River Salmon

COPPER RIVER SALMON ARE SOME of the finest salmon in the marketplace today. Typically the first salmon commercially harvested in Alaska each year, these robust fish fetch a high price in restaurants across the nation. In some years, in excess of one million Copper River salmon are taken commercially. While the commercial salmon fishing

occurs outside of the park near the mouth of the

Sockeye salmon bring rich oce nutrients to inland lakes and streams

river, many of these fish originated from within the Park/Preserve and are attempting to return to their birth streams or lakes to spawn. In addition to providing for subsistence, sport harvest, and other visitor experiences, these returning salmon play an important role in the natural ecosystem.

Many Alaskan streams and lakes are relatively nutrient- poor. Adult salmon, returning from the sea, bring with them rich ocean nutrients. Algae utilize this boost in nitrogen and phosphorus and in turn provide food for zooplankton and aquatic insects which ultimately feed juvenile salmon that continue the cycle. Commercial fisheries have the potential to overharvest salmon populations and also reduce these important ocean nutrients within the aquatic ecosystem.

In Alaska, salmon fisheries are managed according to the sustainable salmon fisheries policy which states that "salmon fisheries shall be managed to allow salmon escapements necessary to conserve and sustain potential salmon production and maintain normal ecosystem functioning." Park fisheries biologists work closely with fisheries managers in the Alaska Department of Fish and Game, other Federal agencies, tribal governments, and private nonprofit organizations to ensure that healthy numbers of salmon return to spawn each year. The superintendent of Wrangell- St. Elias National Park and Preserve is the federal fisheries manager for the entire Copper River. This means

that he has the authority to suspend fishing when necessary to ensure enough salmon survive their long journey upriver to spawn or be harvested by subsistence fishers.

Throughout the summer, biologists keep track of the numbers of returning salmon in several ways. As salmon begin to enter the Copper River from the sea, a sonar counts each fish. Daily sonar readings give an idea of how many fish have made it into the river. Upriver,

> experimental fishwheels in Baird Canyon, harvest reports from fishermen, and a series of monitored fish weirs in the

park allow for accurate estimates.

In 2005, the commercial fishery harvested 1,337,000 sockeye salmon in the Copper River District. During this

By Eric Veach Chief of Resources Fishwheels are used by Alaskan Residents b narvest salmon for personal subsistence

same season, 578,927 salmon passed by the Miles Lake sonar and escaped the commercial fishery. Of these salmon that entered the Copper River, approximately 72,000 were harvested in subsistence fisheries in the Glennallen Subdistrict of the Copper River and approximately 120,000 were harvested in the personal use fishery downstream of the Chitina-McCarthy bridge. An estimated 15,000 salmon were harvested in sport fisheries throughout the Copper River drainage. The remaining 372,000 salmon escaped to begin the next generation.

The Copper River is famous the world



over for the health of its salmon runs and the taste of its fish. This is a result of careful monitoring to guarantee salmon numbers large enough to reproduce and replenish the population. Through cooperation we hope to maintain these tremendous fish in perpetuity.

> By Tom VandenBerg HQ District Interpreter

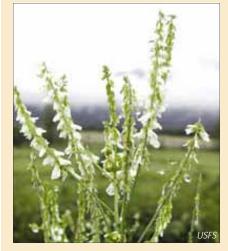
Unwelcome Visitors! Invasive Plants Arrive in the Copper Basin

MANY OF THEM SECRETLY HITCHED RIDES ON CARS, TRUCKS, AND RVs. Some were inadvertently carried here from far away by local residents and park visitors. A few stowed away in construction materials, while others may have recently escaped from backyards and gardens in Anchorage. None belong in Alaska, and all of them mean trouble for native habitats in Wrangell- St. Elias. They are invasive plants, and the invasion may be just beginning.

Invasive plants are those that have been introduced here from elsewhere, either deliberately, or accidentally. Many are popular as ornamentals and backyard plantings, but when they escape into the wild, quickly overrun native plants. Alaskan wildlife and insects may not consume or use these exotic plants. Some invasive plants even change ecosystems by utilizing large amounts of water and nutrients, altering soil and water resources, and even increasing fire frequency. In this way, diverse Alaskan habitats supporting many species may give way to monocultures of useless foreign weeds.

In the past, the harsh climate and isolation has protected Alaska from exotics. Recently, however, some of the most harmful weeds of the lower 48 states have begun to appear, grow, and spread. A recent study has already tallied over 50 species of invasive plants in Alaska National Parks. Thirty of those have been identified in Wrangell- St. Elias. Luckily, so far they've only established a foothold in disturbed areas along roads and near structures, not in the expansive backcountry.

As Alaska continues to warm, visitation increases, and development progresses, exotic plants will increase in number and extent. Although the invasion is just beginning, it may not be too late to literally "nip it in the bud." During the summer of 2005, park roads and visitor areas were closely surveyed. Recently volunteers pulled and destroyed over 100 garbage bags of invasive weeds, primarily sweet clover and pigweed. Work will continue this summer. Hopefully this "rapid detection, rapid response" strategy will help keep these maurauders in check and preserve Alaska's dynamic, productive, and native landscapes. To learn more, ask a park ranger and find out how you can help.



A species of specific concern here is **White Sweet Clover** (*Melilotus alba*). Originally from Europe and Asia, this plant spreads rapidly and envelops large areas. Each plant can produce 350,000 seeds that remain in the soil for up to eighty years. It has been found in patches along local roadways, but large areas along the Stikine River in southeast Alaska, and the Matanuska River have been infested. The fear is that sweet clover will ultimately get established along the Copper River, transforming today's open shorelines and gravel bars into vast thickets of weeds.

Wrangell-St. Elias

National Park & Preserve National Park Service U.S. Department of the Interior

