Welcome!
Experience the natural features and cultural history of the North Cascades.

We hope that you enjoy your visit. The North Cascades with its wilderness, glaciers, watersheds and natural resources is vital to the health of the entire Pacific Northwest. The Forest Service and the Park Service are meeting new challenges to both preserve and utilize these resources.

You are also a steward of public lands. By working together to support sustainable land management and minimize impact, we can preserve this spectacular setting for future generations.

Have a safe and rewarding visit.

Jon Vanderheyden
Mt. Baker District Ranger
Mount Baker-Snoqualmie NF

William F. Paleck
Superintendent
North Cascades National Park Service Complex

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Forest Service Centennial
Caring for our Natural Legacy
1905-2005

"Our responsibility to the Nation is to be more than careful stewards of the land; we must be constant catalysts for positive change."
-Gifford Pinchot
First Forester, 1905-1910

The USDA Forest Service will celebrate its 100th anniversary on July 1, 2005. On this date 100 years ago, the Forest Service was created as an agency with a unique mission: to sustain healthy, diverse, and productive forests and grasslands for present and future generations. The creation of the Forest Service initiated a century of change in managing public forests and grasslands, with introduction of a new conservation ethic and professional workforce to carry it forth.

Today, the future of the National Forests lies in your hands along with those of Forest Service professionals and other interested individuals and organizations.

North Cascades
National Park Service Complex
North Cascades National Park, Lake Chelan National Recreation Area (NRA) and Ross Lake National Recreation Area total 684,000 acres. 93% of the complex is designated as the Stephen Mather Wilderness. www.nps.gov/noca

Mt. Baker Ranger District
Mt. Baker-Snoqualmie National Forest

The 530,000 acre district encompasses:
• Mt. Baker Wilderness
• Noisy-Diobsud Wilderness
• Sections of Glacier Peak Wilderness
• Skagit Wild & Scenic River System
• Mt. Baker National Recreation Area and Baker Lake and
• Mt. Baker Scenic Byway and Heather Meadows.
www.fs.fed.us/r6/mbs

North Cascades National Park Service Complex, USDI
Mt. Baker Ranger District, USDA
810 State Route 20
Sedro-Woolley, WA 98284
In the Pacific Northwest, public land management began with the original Forest Reserves which were administered by the U.S. Department of Interior. In 1905 they were transferred to the U.S. Department of Agriculture’s newly formed Forest Service. One hundred years later the agency is celebrating its centennial with an historical look back and a step forward into the 21st century.

Not long after the Forest Service was formed the Northwest Forest Reserves became the National Forests we are familiar with today. In 1908, the Washington National Forest was divided into two forests: the Washington in the north, and the Snoqualmie in the south. Then in 1924, the Washington National Forest was renamed the Mt. Baker National Forest. With the establishment of the North Cascades National Park in 1968, the Mt. Baker Forest transferred several hundred thousand acres to National Park management.

By 1974, a decision was made to administratively merge the Mt. Baker and the Snoqualmie National Forests. Today the Mt. Baker-Snoqualmie NF covers 1.7 million acres and extends more than 140 miles along the western slopes of the Cascade Mountains from the Canadian border to the northern boundary of Mt. Rainier National Park.

Nationwide the National Forest system provides highly diverse and unique resources, opportunities and experiences. Today’s “Forest Ranger” faces different challenges than a century ago when the agency was formed.

The tremendous growth of communities surrounding National Forest lands has spawned a new era of conservation leadership. The challenge lies in balancing the needs of people in an ecologically sensitive manner, while providing for the future and generations to come.

As the Forest Service celebrates its centennial, please join in reflecting on the organization’s proud history and traditions and exploring ways to move into a new century of “Caring for the Land and Serving People.”

For More Information of this special anniversary and to learn some “Tidbits of History” visit: www.fs.fed.us/6/r6/mbs and click on the Forest Service Centennial link.

Early Forest Rangers survey Mt. Shuksan area.

North Cascades National Park Service Complex

People sed by the rugged beauty of the North Cascades lobbied to make the region a National Park since before the service’s founding in 1910. Joining the National Park Service, whose mission is to manage lands to “…leave them unimpaired for the enjoyment of future generations,” would insure that the mountains, glaciers and forests would remain untamed and undeveloped. It wasn’t until 1968 that, responding to public interest, Congress established the North Cascades National Park Service Complex.

As part of the National Park System, the North Cascades is managed with a delicate balance to allow for recreational use, public education and preservation of the abundant natural and historical resources. Prior to the formation of the park, three dams had already been built on the Skagit River, and several towns had been established. The Park Complex is therefore administrated as three areas: the National Park, which is mostly wilderness, and two recreation areas. Ross Lake Recreation Area and Lake Chelan Recreation Area. The National Recreation Areas allow for uses not typically found in National Parks such as hunting.

Today, the management goals of the complex are as diverse as the landscapes inside of it. From research to educational outreach, trail maintenance to monitoring impacts on wilderness, the National Park is striving to meet the demands of the public while working within the National Park Service mission.

North Cascades National Park Fees Improve Facilities

There are no entrance fees at North Cascades National Park, but fees are collected for front country camping, using the docks on Lake Chelan and for parking at certain trailheads. Among the projects being completed with fee revenues this year are:

- Expanding a restroom at Colonial Creek Campground.
- Surveying and rehabilitating wilderness camps.
- Public Land Corps maintenance and rehabilitation of park trails, including Cascade Pass.
- Funding an international SCA work crew.

SKYLINE DIVIDE TRAIL #678 is not accessible due to damage at Milepost 4.5 on FS 32. Road repairs are scheduled for summer 2005. Additionally, FS 33 Wells Creek Road, off of the Mt. Baker Highway, is closed at Milepost 5.5.

North Cascades National Park Service Complex

Two major trail bridges, the Stilwell Bridge over Little Beaver Creek and the Thunder Creek Bridge on the Thunder Creek Trail, will be replaced during summer 2005.

Severe damage to the Stehekin Valley Road above Car Wash Falls (13 miles from Stehekin Landing) remains, and there will be no shuttle bus service beyond High Bridge (11 miles from the landing) in 2005.

North Cascades Challenger 2005-06

From Forest Reserves to the Present Day

Storm Damage

Storms and flooding in October, 2003, damaged roads, trails, and campgrounds on the Mt. Baker Ranger District of the Forest Service and in the North Cascades National Park Service Complex. Some repairs were completed in 2004, while others will take several years to accomplish. Check for current conditions to learn if the area you are interested in has been affected at: www.fs.fed.us/6/r6/mbs/conditions/ or www.nps.gov/noca/cond.htm.

Mt. Baker Ranger District

Forest Road and Trail Damage

BAKER LAKE TRAIL #660 lost bridges at Anderson Creek and Blum Creek. Both channels moved south one hundred feet. Stream fording may be required. Use caution.

ELBOW LAKE TRAIL #697: The trail bridge over the Middle Fork Nooksack River was destroyed. Fording the river is not recommended, especially during high stream flows.

PARK BUTTE TRAIL #603: The bridge was destroyed by the flooding at Rocky Creek. Fording is required and may be difficult at high water. A new bridge is scheduled for summer 2005.
Make it Happen- Be a Volunteer!
Volunteering is a way of giving something back to the land that has nurtured and inspired you. It is also a way to gain a deeper understanding of the many issues related to management of our public lands. Increasing visitation, maintenance and staffing needs at visitor centers, recreation sites and trails often exceed the agencies' resources. Combined efforts from people with all types of skill and talent can help make a difference.

Forest Service
The Mt. Baker-Snoqualmie National Forest is an active partner with groups such as the Washington Trails Association (WTA), Pacific Northwest Trail Association (PNTA) and Volunteers for Outdoor Washington (VOW). They help organize volunteer work parties on trails and other sites on the forest. Volunteer hours may be good toward a NW Forest Pass.

VOW: (206) 517-4469
PNTA: (877) 854-9415
WTA: (206) 517-7032
www.wta.org

Mountain Stewards
North Cascades Institute and the Mt. Baker Ranger District have joined to organize Mountain Stewards, a volunteer program aimed at educating visitors about resource management issues, low impact recreation skills and natural history in the Mt. Baker area.

Mountain Stewards hike some of the busy trails in the Mt. Baker area including Heliotrope Ridge, Park Butte/Railroad Grade and trails accessed in the Heather Meadows area. From late July through mid-September Mountain Stewards interact with hikers and help provide an informative aspect to their trail experience.

Volunteers work Friday through Sunday and must attend two training sessions. If you enjoy being on the trail and feel a responsibility for the upkeep of these public lands, please contact North Cascades Institute or Mt. Baker Ranger District at: (360) 856-5700 ext. 209, or read more at: www.fs.fed.us/r6/mbs/volunteering/mtn_steward_comm-of-advocates.shtml.

Artists-in-Residence
by: Diane Weddington, Artist-in-Residence 2004
North Cascades National Park's Artist-in-Residence program offers the unique opportunity to live and work in the North Cascades, one of the most scenic wilderness areas in this country.

The artists aid the park's mission through creative work and educational programs. Each artist presents workshops, programs or exhibits each week during the month of residency.

Regional artists have already discovered the wonders of the park. The "Poets on the Peaks," Gary Snyder and Jack Kerouac, wrote words which have inspired hundreds to come in search of the park's lookouts and cloud-covered peaks. Lee Mann has captured the mysterious forests and the glacial crags in his widely-seen photographs. However, being famous is not requisite for being the park's Artist-in-Residence. The challenge to the artist is to see the park with fresh vision and to convey this vision the public.

Applications are available by contacting Charles Beall at: Charles.Beall@nps.gov, or calling: (206) 386-4495, ext. 12.

Washington National Park Fund
Every year millions of people visit Washington State's spectacular national parks: Mount Rainier, North Cascades and Olympic. Since 1993, Washington's National Park Fund has connected people to parks and inspired contributions of time, talent and money. The fund helps ensure that visitors have high quality experiences by sponsoring educational, trail and wildlife projects. By securing funding from individuals, corporations, foundations and businesses, the fund supports park restoration, enhancement and preservation. For information about how you can help Washington's national parks call: (206) 770-0627, or visit: www.wpnf.org.

Thanks Partners!
Northwest Interpretive Association
The Northwest Interpretive Association is a nonprofit organization that works cooperatively with public agencies throughout the Northwest to promote historical, scientific and educational community. Money received through sales, memberships and donations is used to help study and interpret areas of both North Cascades National Park Service Complex and the Mt. Baker Ranger District. The association publishes this newspaper and other guides. Sales items may be purchased on site at various offices and through mail order. For more information or to see a catalog, visit: www.nwpubliclands.com, or call: (360) 856-5700 ext. 291 or 515.

National Park Service
North Cascades National Park has a strong Volunteers-in-Park (VIP) program. More than 200 volunteers annually donate more than 20,000 hours to assist the park in its mission to preserve our natural heritage. Volunteers help in many different aspects of park operations including working with rangers at the visitor center, doing trail maintenance and much more.

North Cascades also welcomes as many as 30 Student Conservation Association (SCA) interns each year. This program provides students a chance to try out careers in conservation, but anyone may apply.

Volunteers Needed to Restore the Land
Beginning Spring 2005, North Cascades Institute and North Cascades National Park are offering a unique opportunity for families, organizations, groups and individuals. They can have a meaningful experience contributing 6-20 hours and volunteering in a beautiful setting doing necessary restoration at the Environmental Learning Center.

Work parties are being arranged for weekdays and weekends April-November 2005. Volunteers will assist with a variety of tasks necessary for transplanting over 21,000 plants. That’s a lot of hole digging, planting, and watering. Due to overwhelming interest and need, apply now! Overnight camping/lodging accommodations may be available for weekend work parties. For more information, please contact Erin Schneider, Restoration Coordinator, at: (360) 856-5700 ext 209, or visit: www.ncascades.org.

EarthCorps www.earthcorps.org
Seattle area youth come to the park each summer for one to three days to learn about wilderness, park resources, career opportunities and environmental restoration. Funded by a NPS-Public Land Corps Grant, this program is in its third year. The kids assist the plant propagation staff by collecting seeds and planting as well as monitoring human impacts in campgrounds.

Washington National Park Fund
Funds collected through the sales of the NW Forest Pass program have provided a steady source of revenue over the last several years. This funding allows the National Forest and Park to complete projects on trails and developed recreation sites. A detailed account of the Northwest Forest Pass program is available at www.fs.fed.us/r6/nmb.

Don Burgess
North Cascades National Park is pleased to recognize the National Park Foundation and REI for their generous support of volunteer efforts in the Park.
Plan & Prepare

AN EXCELLENT WAY TO EXPLORE THE NORTH CASCADES IS BY CAR. State Route 20 runs east from Burlington past Baker Lake and into the heart of the North Cascades National Park and the Ross Lake National Recreation Area. While a portion of the road is closed during winter, by April you can drive the entire Cascade Loop to the Ross Lake National Recreation Area. While the heart of the North Cascades National Park and the Rt. 524 up to Marblemount, WA 98267

WHERE TO STAY

There are many lodging options in and near the National Park and Forest. To aid in planning, local Chamber of Commerce Offices are listed on page 13.

More remote accommodations in the North Cascades include Ross Lake Resort and Baker Lake Resort. North Cascades Stehekin Lodge and other lodging is available in Stehekin. See the Focus on Stehekin for a complete listing.

CAMPING & BACKPACKING

CAR CAMPING: Both the National Park and the US Forest Service offer developed drive-in camping sites. Typical facilities include toilets, water, fire pits and garbage disposal. Developed sites charge a fee and some may be reserved. Check the chart on page 9 for camp locations and amenities.

NATIONAL PARK BACKCOUNTRY: There are more than 200 backcountry sites available, from boat-in sites to high alpine backpacking sites. Camping is allowed only at established sites along trail corridors. Camps include toilets, tent pads, and in some cases tables and firepits. All backcountry sites require a free permit available at ranger stations. Permits are issued on a first-come, first-serve basis.

For permit information, contact: Wilderness Information Center 7280 Ranger Station Road Marblemount, WA 98267 Phone: (360) 873-4500 ext. 39

NATIONAL FOREST: Dispersed camping in the national forest does not require a permit, but a Northwest Forest Pass may be required to park. Backcountry campers in the Mt. Baker NRA must camp at designated spots.

Campfires are not allowed in many backcountry areas in subalpine settings, and seasonal fire restrictions may apply.

ACCESSIBILITY

The National Park & Forest offer barrier-free trails, campsites, viewpoints, restrooms and visitor information centers designed for accessibility throughout the North Cascades. Accessible restrooms are available at all visitor information stations and most campgrounds. Several trails adjacent to each highway route are surfaced for wheelchairs and strollers, as well as for individuals who have difficulty walking.

For more information: www.nps.gov/noca/accessibilityguide/accessguide.htm

HIKE & CLIMB

Hundreds of miles of trails lead into the North Cascades. Storm damage may have impacts on your trip; check trail conditions before you leave. Most long hikes and climbs enter designated wilderness where special restrictions may apply. Climbers should choose experienced partners or licensed guides and fill out Voluntary Climbing Registers at the station nearest your climb.

Ask for a Wilderness Trip Planner and Climbing Notes or a list of outfitter guides. Check out our Park and Forest websites for current recreation reports and climbing information.

BIKE

Many people tour the North Cascades by bicycle. Bike use is not permitted on National Park Service or wilderness trails; however, riding is allowed on roads and on designated trails on the Okanogan National Forest. Some rugged roads offer challenging mountain biking. Always travel single file on the right side of the road and use reflectors and wear bright clothing. Be well supplied with drinking water, food and warm, waterproof clothing as environmental conditions can change rapidly. Ask for the site bulletin: Cycling the North Cascades Highway.

WATER SPORTS

River floating is an excellent adventure worth planning for. Experienced boaters run the Skagit, Nooksack and Stehekin Rivers. Ask for a list of local outfitters at any ranger station.

Kayaking, canoeing and motor boating are other options. No personal watercraft (jet skis, etc.) are allowed in the North Cascades National Park and Forest Service Complex. Boat and paddling rentals are available at Baker Lake, Ross Lake and Lake Chelan. Ramps are located at Baker Lake, Gorge Lake, Diablo Lake, Lake Chelan and the north end of Ross Lake at Hozomeen.

FISHING

Fishing in Washington, including in National Parks and Forests, requires a valid Washington State fishing license. The Skagit River, one of Washington’s major watersheds, is home to seven species of anadromous fish (five salmon, steelhead and cutthroat trout) and freshwater trout and char. Diablo and Gorge Lakes have been stocked with rainbow and cutthroat trout, but Ross Lake, which has been left natural, offers quality sport fishing.

Lake Chelan has fresh water cod, trout and kokanee (land-locked salmon.) The Stehekin River offers rainbow and cutthroat trout.

In order to protect spawning fish populations, it is necessary to comply with special regulations including closures, seasons, catch limits and gear restrictions. This information is available in the Washington Department of Fish and Wildlife Sport Fishing Regulations, available wherever licenses are sold, and online at: wsdfw.wa.gov

DOGS

Dogs are permitted on trails or cross-country in the national park. Leashed dogs are allowed in Ross Lake and Lake Chelan National Recreation Areas, along the Pacific Crest Trail and along roads in the national park.

Leashed dogs are allowed in the National Forest in developed recreation areas, except on Table Mountain Trail 685 in Heather Meadows.

STOCK

Stock are welcome on trails maintained to stock standards. Trail rules and seasons of use vary. Also, special rules apply in wilderness areas.

- Stock parties are limited to 12, including animals, on trails in wilderness; 6 in national park areas off-trail.
- Grazing is permitted in the national forest without a permit.
- Grazing with a permit is allowed in the Ross Lake and Lake Chelan National Recreation Areas. Obtain this with your backcountry permit.
- Grazing is prohibited in WP wilderness areas; processed food pellets are required.

Check with a ranger station while planning a trip.

PARKING PERMITS

Some sites require parking passes. The Northwest Forest Pass is valid throughout all National Forests in Oregon, Washington and North Cascades National Park Service Complex. Passes can be obtained at ranger stations, by calling: (800) 270-7504 or on-line at: www.naturenw.org.

Passes should be displayed from the rearview mirror or on the dashboard.

Day Pass $5
Annual Pass $30
(Valid one year from purchase date)

Federal Golden passports are also honored at NW Forest and park sites.

Golden Eagle $65
(federal annual pass)

Golden Age $10
(life-time pass for US citizens 62+)

Golden Access Free
(Disabled US Citizen)

The federal pass system may be changing. Check with a ranger station for the latest details.

QUESTIONS?

THE FOREST/PARK SERVICE INFORMATION OFFICE, in Sedro-Woolley off State Route 20, offers year-round visitor services.

WILDERNESS INFORMATION CENTER in Marblemount issues backcountry permits.

THE NORTH CASCADES VISITOR CENTER, near Newhalem off of SR 20, provides visitor information, naturalist programs, interactive exhibits and multimedia presentations. Open daily from mid-April through October.

GLACIER PUBLIC SERVICE CENTER, at milepost 34 off Mt. Baker Hwy SR 542 east of Bellingham is operated from mid-May to mid-October and intermittently during the winter.

HEATHER MEADOWS VISITOR CENTER, off SR 542, showcases the heritage of the Mt. Baker area and is open daily from July to September.

CHELAN RANGER STATION in Chelan provides information about Lake Chelan NRA and Wenatchee NF.

GOLDEN WEST VISITOR CENTER in remote Stehekin offers information and exhibits year round, and a variety of naturalist programs in the summer.
Travel Safely,
Step Lightly

ANY PEOPLE COME TO THE NORTH CASCADES TO ENJOY ITS RUGGED BEAUTY AND REMOTE WILDERNESS. Recreating in natural areas, however, involves inherent dangers and responsibilities. The following are travel tips to help you have a safe and responsible journey so that you, and future travelers, can enjoy the landscape to its fullest.

Safety Tips
Don’t let a pleasurable outing turn into an unexpected tragedy by not being prepared. Conditions in mountainous areas can change very rapidly, even during a day trip.

• Use caution on access roads: watch for obstructions such as rocks, sudden bends, parked vehicles and pedestrians.
• Safeguard your possessions by keeping them out of sight. Lock your vehicle.
• Carry the ten essentials listed below.
• Stay on trails. Wear adequate footwear and use a topographic map & compass.
• After hiking, check yourself for ticks which may carry lyme disease.
• Horses can startle easily. When stock approach, make your presence known and yield to the lower side of the trail.
• Report down trees or washouts to the nearest ranger station.
• Do not depend on cellphones, as there are many “dead spots.”
• Always tell a friend your travel plans including destination and expected return time.

The 10 Essentials
These essentials should be carried on even short hikes to prepare for the unexpected. Immediate assistance is rarely available in emergency situations.

• Food and Water: Carry high-energy snacks and plenty of water. Treatment pills can be used, but only boiling kills giardia.
• Clothing: Weather can change dramatically in mountainous regions. Carry rain gear and warm clothing including wool socks, gloves and a hat.
• Navigation: Carry and know how to use a topographic map and compass.
• Light: Flashlight with spare batteries and bulb.
• Fire: Waterproof matches and fire starter such as a candle.
• Sun Protection: Sunglasses and sunscreen.
• First Aid Kit: Make sure to include any special medications.
• Knife: A folding pocket knife.
• Signal: Carry both an audible and visual signal, such as a whistle and a metal mirror.
• Emergency Shelter: Plastic tube shelter or waterproof bivy sac; emergency blanket.

Traveling with Children
The outdoors can be a rewarding experience for everyone, especially children. Some special safety precautions and extra activities can make the most out of an adventure:

• Children should remain with adults. Establish rules for keeping together. If separated, the child should hug a tree near an open area and stay put.
• Pick trails and adjust goals to children’s age and abilities.
• Bring along the ten essentials. Have children help assemble an emergency kit, and make sure they are familiar with how to use each item.
• Help children develop responsible outdoor practices.

ACTIVITY IDEAS FOR CHILDREN:
Have children bring along a friend. Explore with ears and eyes. Play observation games-watch for birds and identify plants, bugs or animal tracks. Listen for sounds of wildlife. Draw a picture or write a poem to help remember the trip.

Family fun packs and Junior Ranger programs are available at the North Cascades Visitor Center near Newhalem and Golden West Visitor Center in Stehekin. Activity guides are also available in Spanish.

Coexisting with Wildlife
The North Cascades is home to many species of wildlife, some of which are frequently encountered and others that remain illusive. For the well-being of both humans and wild animals, from a common chipmunk to a grizzly bear, it is important to keep wildlife wild.

Animals are attracted to food and other scents. Human food is both unhealthy for animals and can lead to potentially dangerous encounters with them.

• Try to have your sleeping area about 100 yards (90 m) up wind from cooking area. Keep sleeping gear free of food odors and cosmetic scents.
• Store food, garbage and toiletry items in either bear-resistant canisters (available on loan from National Park Service offices) or hung 15 feet (5 m) off the ground and at least 5 feet (1.5 m) from tree trunks.
• Pack out all food waste.
• Never feed wildlife.

 Wildlife Encounters
Appreciate wildlife from a distance; do not approach any animal as it can disrupt behavioral patterns.

Most animals are afraid or cautious of people. While dangerous encounters with bears or cougars are rare, it is important to know how to respond in such situations. Some general guidelines are:

• Travel in small groups.
• Give wildlife plenty of space.
• If you encounter a bear or cougar, do NOT run. Slowly back away.

Different species behave differently; educate yourself on how to respond in case of an attack. Ask for cougar and bear site bulletins.

Help Protect Spawning Salmon

• Know the fishing rules printed in Fishing in Washington, available wherever licenses are sold.
• Be an observant river visitor and don’t disturb salmon swimming up river—they use their last strength to spawn. Do not disturb gravel beds where eggs could be incubating.
• Report illegal fishing to the Enforcement Hotline at (800) 477-6224 (M.-F. 8:00 AM- 5:00 PM).
Wild & Scenic Skagit River

Beginning high in the North Cascades Mountain Range, the Skagit Wild & Scenic River System winds down steep slopes, through forested hillsides and wide, open valleys to the Puget Sound. The essence of the river system reveals itself in abundant wildlife, fisheries, outstanding scenery and recreational qualities.

Bald eagles are seen in the Upper Skagit, primarily from late December through early February. Distinctive runs of Chinook, pink, coho and sockeye salmon share the rivers with winter chum, the favorite food of the bald eagle. Wild steelhead and other sea-going trout also live in the rivers along with resident trout.

Sport fishing has its challenges as well as its rewards. Whether you choose to fish from the shore or your boat, the rivers offer the opportunity to catch fish in a wild, natural setting. A Washington State Fishing license is required. Please follow all regulations and support conservation efforts.

Check with a ranger station for a Skagit River Boating Map and Guide and a list of outfitters who offer raft trips on the rivers.

Baker Lake

Nine-mile (14 km) long Baker Lake offers opportunities for camping, boating, fishing, picnicking, hiking and pack & saddle trips. Washington State regulations govern boating and fishing at Baker Lake.

Developed campgrounds and a summer resort are located along the western side of the lake. The Baker Lake Trail extends along the eastern shoreline, crossing the Baker River at the north end.

For camping information see pages 8-9; for Baker Lake Resort information call: (888) 711-3033.

Mt. Baker National Recreation Area

8600 ACRES; ESTABLISHED IN 1984

The Mt. Baker National Recreation Area was established outside designated wilderness to allow for snowmobile use when snow levels are sufficient. This impressive landscape is accessible by trails leading from the end of Forest Road 13 or through the Mt. Baker Wilderness from the South Fork Nooksack River drainage.

Hikers are welcome to explore the trails, and stock are permitted August 1 to November 1. Winter recreation includes skiing, snowmobiling and snowshoeing. To help prevent resource damage and protect subalpine vegetation, backcountry campers must stay at designated sites, and no campfires are allowed in this area.

One-night-only campsites are established for hikers and stock parties at the trailhead at the end of Forest Road 13. Please ask for a detailed handout on campsites and area regulations at a ranger station.
The scenic Mt. Baker Highway winds along the North Fork of the Nooksack River, ending at spectacular Artist Point at 5,100 feet (1545 m) in the Heather Meadows area. The last 24 miles (39 km) is designated as a National Forest Scenic Byway. At the road's end, trail systems lead into the Mt. Baker Wilderness. During winter months motor traffic ends at the Mt. Baker Ski Area 4 miles (6 km) below Artist Point.

Points of Interest

**GLACIER PUBLIC SERVICE CENTER,** located at MP 34, is listed on the National Register of Historic Places. The Service Center is jointly operated by the Forest Service and National Park Service during the summer season.

**MT. BAKER VISTA** is a dramatic viewpoint at the end of Glacier Creek Road-Forest Road 39.

**HORSESHOE BEND TRAIL**, MP 36: This 1.5 mile (2.4 km) hiker-only trail wanders along a forested ledge above the North Fork of the Nooksack River.

**BOYD CREEK INTERPRETIVE TRAIL**, Forest Road 37: The short, self-guided nature trail focuses on healthy fish habitat.

**NOOKSACK FALLS**, MP 41: A dramatic waterfall plummets more than 100 feet (30 m) over rocky outcrops. A fence-lined pathway leads to a viewpoint.

National Forest Camping

Three developed campgrounds are located along the Mt. Baker Scenic Byway: Douglas Fir, Silver Fir and Excelsior Group Camp. The camps offer a rustic experience in natural settings along the North Fork Nooksack River. Some sites may be reserved in advance by contacting: www.reserveusa.com or calling: (877) 444-6777.

Experience Wilderness

The Mt. Baker Ranger District contains three Wilderness areas: Mt. Baker, Noisy-Diobsud and a part of Glacier Peak.

Keeping wilderness intact requires some regulation. Party size is limited to 12, including saddle and stock animals. To preserve solitude, no motorized or mechanized equipment is allowed. Campfires are prohibited in many areas.

When entering wilderness areas, be prepared for risk and challenge. The terrain can be rugged and the weather unpredictable. During winter months, check avalanche forecasts at: (206) 526-6677, or visit: www.nwas.noaa.gov.

Heather Meadows Area

Located along the upper reaches of the byway, this spectacular subalpine setting offers summer day use recreation along a network of scenic trails. Visitors can spread out a picnic lunch at Austin Pass Picnic Area and enjoy several self-guided interpretive trails.

Longer hikes lead into the surrounding Mt. Baker Wilderness. Check in with staff at the Heather Meadows Visitor Center for current conditions and area histories. Open daily in summer from 10:00 AM to 4:00 PM.

A Northwest Forest Pass is required to park at trailheads. Always check trail and road conditions at the Forest Service website or by calling a ranger station.
TRAVEL THE NORTH CASCADES SCENIC HIGHWAY (SR 20), along the Skagit Wild and Scenic River Corridor, into the heart of the Cascade mountains.

Mile 82
Follow Baker Lake Road #44 for access to water sports, hiking and campgrounds. After entering the National Forest, Roads 12 and 13 lead to the Mt. Baker National Recreation Area for winter sports, hiking and campgrounds. After entering the National Forest to the Cascade Pass junction with SR 20 at the end of town leads to the Ross Dam Trailhead and Happy Panther Trail are accessed from this area, as well as the Ross Lake Resort. Call: (206) 386-4437. A Forest or National Parks Pass is required for parking.

Mile 96
Rockport
Two parks, Rockport State Park and Howard Miller Steelhead County Park for camping. State Route 530 goes south along the Sauk River, State Route 533 leads to the Glacier Peak System, and accesses roads to the Glacier Peak National Recreation Area for winter sports, hiking and campgrounds. After entering the National Forest, Roads 12 and 13 lead to the Mt. Baker National Recreation Area for winter sports, hiking and campgrounds. After entering the National Forest to the Cascade Pass junction with SR 20 at the end of town leads to the Ross Dam Trailhead and Happy Panther Trail are accessed from this area, as well as the Ross Lake Resort. Call: (206) 386-4437. A Forest or National Parks Pass is required for parking.

Mile 105
Marblemount
This is the last stop for full services and gas before Winthrop. National Park backcountry permits are issued at the Wilderness Information Center one mile (0.6 km) north of SR 20 on Ranger Station Road. The Cascade River Road junction with SR 20 at the end of town leads through the National Forest to the Cascade Pass Trailhead. A Northwest Forest Pass is required to park at trailheads along the road.

Mile 111
Enter the Ross Lake National Recreation Area
120 Newhalem
Across the Skagit is the North Cascades National Park Visitor Center with several short walks including the Rock Shelter and River Loop Trails. Seattle City Light runs an Information and Tour Center with facilities, walking tours, and several trails including Trail of the Cedars and Ladder Creek Falls. The Newhalem Creek and Goodell Creek Campgrounds offer tent, RV and group campsites.

Mile 123
Gorge Overlook and Gorge Falls
Rest stop and accessible loop offers views of the gorge and dam.

Mile 130
Colonial Creek Campground
On Diablo Lake, the campground has camp hosts and offers nature programs in the summer, an accessible picnic area and fishing platform. Thunder Creek, Thunder Woods and Thunder Knob Trails leave from the campground and go through diverse forests to scenic views.

Mile 131
Diablo Lake Overlook
The viewpoint has views, a map, detailed geology exhibits and accessible restrooms.

Mile 134
Ross Dam Trailhead
The Ross Dam Trailhead and Happy Panther Trail are accessed from this area, as well as the Ross Lake Resort. Call: (206) 386-4437. A Forest or National Parks Pass is required for parking.

Mile 136
Ross Lake Overlook
View Ross Lake and mountains, and enjoy the Happy Creek accessible trail.

Mile 138
East Bank Trailhead
Panther Creek, East Bank and Ruby Creek converge near here. A NW Forest or National Parks Pass is required.

Mile 139
Enter Okanogan NF
North Cascades are accessible by car. Many public campgrounds in the North Cascades are accessible by car. North Cascades National Park Service Complex offers group and some individual camping reservations. Group campsites in the park are located at Goodell Creek and Newhalem Creek. Reservations can be made 3 to 240 days in advance for many federal campgrounds by calling: (877) 444-6777 or on-line at: www.reserveusa.com.

Car Camping in the North Cascades
Many public campgrounds in the North Cascades are accessible by car. North Cascades National Park Service Complex offers group and some individual camping reservations. Group campsites in the park are located at Goodell Creek and Newhalem Creek. Reservations can be made 3 to 240 days in advance for many federal campgrounds by calling: (877) 444-6777 or on-line at: www.reserveusa.com.

Washington State Parks reserves some sites by calling: (888) 226-7688 or online at: www.reserveusa.com.
Ross Lake National Recreation Area

Thirty miles of the North Cascades Highway meanders through the upper Skagit watershed amongst soaring peaks and forests. A variety of activities can be accessed from the corridor including challenging day or backpacking hikes, paddling and other watersports. A number of scenic lookout, campgrounds and short trails are available for those seeking a more relaxing trip.

Below Newhalem, the free-flowing portion of the Skagit River offers excellent wildlife viewing and rafting opportunities. A launch is located adjacent to Goodell Creek Campground, but careful planning is required to float the swift Skagit, as there are seasonal hazards, and closures may apply.

Colonial Creek Campground offers easy access for launching watercraft on Diablo Lake. The lake, surrounded by glaciated peaks, is a brilliant turquoise blue. This unique color is caused by fine rock sediments, called glacial flour, that are carried into the lake by streams. There are 3 boat-in campsites where a backcountry permit is required.

The largest of the three lakes, Ross Lake, winds nearly 25 miles (40 km) from Ross Dam to Hozomeen on the Canadian border. The only vehicle access is via Hozomeen, but small motor boats (14' and under) and canoes/kayaks can be portaged around Ross Dam from Diablo Lake. Nineteen boat-in campsites (permit required) and the Ross Lake Resort are available for those looking to spend multiple days in this remote landscape.

State Route 20 Trails

<table>
<thead>
<tr>
<th>Trailhead</th>
<th>Milepost</th>
<th>Distance Round-Trip (Miles)</th>
<th>Elevation Gain (Feet)</th>
<th>Difficulty</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thornton Lakes*</td>
<td>117</td>
<td>10.4 (16.7 km)</td>
<td>2,300 (700 m)</td>
<td>moderate</td>
<td>Strenuous day or backpacking hike to three lakes</td>
</tr>
<tr>
<td>Sterling Muir</td>
<td>120</td>
<td>0.35 (0.2 km)</td>
<td>level</td>
<td>very easy</td>
<td>Accessible boardwalk with a view of the Picket Range</td>
</tr>
<tr>
<td>River Loop</td>
<td>120</td>
<td>1.8 (2.9 km)</td>
<td>50 (15 m)</td>
<td>easy</td>
<td>Accessible, forested walk to Skagit River</td>
</tr>
<tr>
<td>Rock Shelter</td>
<td>120</td>
<td>0.3 (0.5 km)</td>
<td>30 (9 m)</td>
<td>easy</td>
<td>Accessible trail to a campsite used 1,400 years ago by Native People</td>
</tr>
<tr>
<td>Gorge Overlook</td>
<td>123</td>
<td>0.5 (0.8 km)</td>
<td>level</td>
<td>easy</td>
<td>Accessible trail with views of a deep gorge and waterfall</td>
</tr>
<tr>
<td>Pyramid Lake*</td>
<td>127</td>
<td>4.2 (6.8 km)</td>
<td>1,500 (455 m)</td>
<td>moderate</td>
<td>Moderately steep hike through diverse habitat leading to a pristine lake; camping is NOT allowed</td>
</tr>
<tr>
<td>Diablo Lake</td>
<td>128</td>
<td>7.6 (12.2 km)</td>
<td>400 (120 m)</td>
<td>moderate</td>
<td>Offers views of glaciers and mountain peaks; located on the north side of Diablo Lake</td>
</tr>
<tr>
<td>Thunder Knob</td>
<td>130</td>
<td>3.6 (5.8 km)</td>
<td>425 (130 m)</td>
<td>easy</td>
<td>Trailhead located on north side of State Route 20 near Colonial Creek Campground entrance</td>
</tr>
<tr>
<td>Thunder Creek</td>
<td>130</td>
<td>4.6 (7.4 km)</td>
<td>6,300 (1920 m)</td>
<td>difficult</td>
<td>Excellent day hikes or backpacking; connects to Stehekin Valley Suspension bridge washed out 0.8 miles (1.4 km) up trail will be replaced in 2005</td>
</tr>
<tr>
<td>Ross Dam*</td>
<td>134</td>
<td>1.5 (2.4 km)</td>
<td>1,610 (500 m)</td>
<td>moderate</td>
<td>Short, steep trail down to Ross Dam</td>
</tr>
<tr>
<td>Happy Panther</td>
<td>134</td>
<td>12.6 (20.3 km)</td>
<td>500 (150 m)</td>
<td>easy</td>
<td>Gentle rise from Haul Road to East Bank trailhead</td>
</tr>
<tr>
<td>Happy Creek Forest Walk</td>
<td>134-5</td>
<td>0.3 (0.5 km)</td>
<td>level</td>
<td>very easy</td>
<td>Accessible, interpretive trail through ancient forest</td>
</tr>
<tr>
<td>East Bank*</td>
<td>138</td>
<td>0.5-62 (0.8-99.8 km)</td>
<td>1,500 (455 m)</td>
<td>easy</td>
<td>Winds through lowland forest with lake views before looping around Desolation Peak at milepost 16</td>
</tr>
</tbody>
</table>

A permit is needed for all backcountry camping.

* NW Forest, National Parks, Golden Eagle, Golden Age or Golden Access Pass required for trailhead parking.
Newhalem:
The North Cascades were still remote and wild in the 1910s, when the power of the Skagit River was just being harnessed. Newhalem was built as a company town for the men that worked at the dams and their families. The workers have mostly left, but there is still plenty to see in Newhalem. Take a self-guided walk of the town, hike one of the numerous short trails, visit the National Park Visitor Center or stay at one of the campgrounds.

North Cascades Visitor Center
Mid April- mid October:
Open Daily
Rest of the year:
Open Saturday & Sunday

Visit the edge of wilderness at the North Cascades National Park Visitor Center. Learn about the area's natural and cultural history by exploring interactive exhibits, watching theater presentations or talking with rangers. The center also has several accessible interpretive trails and viewpoints.

Look for the sign near milepost 120 on State Route 20. Drive across the single lane bridge over the Skagit River and up the hill 1/2 mile (.8 km).

Ranger Programs:
Check posted schedules on bulletin boards or on-line at: www.nps.gov/noca/skagit_programs.htm.

Experience Wild America at the New North Cascades Environmental Learning Center

Diablo Lake Adventure
Seattle City Light offers an escorted cruise tour, Diablo Lake Adventure, that leaves from Newhalem.

TOUR LENGTH: 2.5 hours
TOUR TIME: 12:30 P.M. Check-in is 30 minutes prior to departure.
TOUR DATES:
June: Saturday and Sunday only
July-August: Friday, Saturday and Sunday
September: Saturday and Sunday only

ADMISSION (INCLUDES TAX):
Adults: $25
Seniors over 62: $20
Youth 6-12: $12
Five and under: Free

Seattle City Light also offers a four hour dinner tour on Thursdays and Mondays in July and August. For more information or to make reservations, call (206) 684-3030 or (206) 233-2709 or visit SkagitTours.com

NORTH CASCADES INSTITUTE'S NEWEST FIELD CAMPUS, NORTH CASCADES ENVIRONMENTAL LEARNING CENTER (ELC), in the National Park Service Complex is celebrating its opening in Summer, 2005. Located along the shores of Diablo Lake off of State Route 20, it is a hub of discovery for all ages. Hike in this dramatic landscape, learn with scientists studying salmon or paint Pyramid Peak in the evening light. Come be a part of a community of expert teachers and intriguing new friends dedicated to the idea that learning together inspires stewardship.

Modeling earth-friendly design and operations, the facilities include:
- Multimedia classrooms and research library
- Overnight lodging for 46 participants, 12 graduate students, and staff
- Lakeside dining hall with recycling/composting center
- An amphitheater, outdoor learning shelters and trails
- ADA-accessible facilities and paths

The North Cascades Learning Center is operated by North Cascades Institute in cooperation with the National Park Service and the City of Seattle. North Cascades Institute is an educational non-profit organization whose mission is to conserve and restore Northwest ecosystems through education. Tours and outreach programs are available by reservation by calling (360) 856-5700 ext. 209.

For a complete listing of our programs, log onto: www.ncaascades.org.
Lake Chelan National Recreation Area

Stehekin, the heart of the Lake Chelan National Recreation Area, is a remote community situated along the lower few miles of the Stehekin River. With no road connections to the rest of the world, Stehekin provides a pleasant escape from life's frantic pace. Visitors and residents arrive by passenger ferry, float plane, hiking, horseback or private boat.

An abundance of activities awaits the visitor who makes the journey to Stehekin. The North Cascades Stehekin Lodge offers overnight accommodations, a restaurant, small camp store, boat gas, marina, tours and bicycle rentals. Private businesses provide a range of lodging options, horseback trips, bicycle rentals, guided raft and kayaking adventures and tours to Rainbow Falls. A shuttle bus takes visitors up the drivable portion of the road to access trailheads and camps. Both in Stehekin and at the end of the road there are plentiful trails, camps and special places waiting to be discovered.

Check the Focus on Stehekin, visit the National Park website or call a ranger station for a complete list of lodgings, services and schedules.

There are over 16 public docks along Lake Chelan including four in the National Recreation Area. Boaters using any of these federal docks need to purchase a dock site pass. ($5 daily or $40 season, May 1-October 31, to help defray maintenance costs). Passes can be obtained at the Chelan Ranger Station or local vendors.

The road beyond Carwash Falls, 13 miles (21 km) from the landing, is closed to vehicles due to severe flooding during the fall of 2003. A trail is maintained for hikers and stock to reach upper-valley trailheads and camps.

A Taste of History

Before tourists seeking isolated beauty and adventure, people were coming to Stehekin. "Stehekin" comes from a Native American word meaning "the way through," and for centuries peoples used the river and lake as a part of relatively easy passage through the mountains. In the late 19th century, U.S. Army surveyors came to chart a route over Cascade Pass, followed by prospectors staking claims on Bridge Creek and in Horseshoe Basin. For most of these people, however, Stehekin was simply "the way through," and only a few, tantalizing glimpses can be found of their presence.

Then some prospectors began settling down and homesteaders came. Names such as Buzzard, Buckner, Purple and Courtenay have historical significance that can still be felt. One of the landmarks left by these homesteaders was the Buckner Orchard. The original homestead was purchased from Buzzard, a prospector turned homesteader and then largely developed by the Buckners themselves to include over a dozen outbuildings. Sold to the National Park Service in 1970, the orchard and 90 acres of surrounding area are now listed as the Buckner Homestead National Historic District.

The orchard itself was expanded to near 50 acres of apple trees by 1925. The majority of the trees are common delicious, a predecessor to red delicious apples. While common delicious trees are no longer being commercially propagated and sold, the Park Service and the community have taken over stewardship of the orchard, and the apples are thriving. Visitors can experience this part of living history by touring the orchard, adopting a tree or even sampling apples and fresh-pressed cider. For more information or to learn about how to adopt a tree, contact:

Buckner Homestead Heritage Foundation
PO Box 174
Marson, WA 98831
or
Washington's National Parks Fund
www.wnpf.org, or by calling: (206) 770-0627.

Activities

Hour Stay
- Visit the Golden West Visitor Center for books, exhibits and the art gallery.
- Learn about homesteading along the 15-minute McEllar Cabin Trail.

Three-Hour Stay
- Walk the Imus Creek Nature Trail, a 3/4 mile self-guided loop with views.
- Bike 3.5 miles one-way to Rainbow Falls and the historic Buckner Orchard.

Whole Day
- Explore the area by tour bus, bicycle, kayak, horseback or trail.
- Stroll down the Lakeshore Trail with a picnic lunch.

Overnight
- Travel the area trails by foot or horseback; stay at a scenic backcountry camp.
- Attend a ranger-led activity or program.

Inspirational Images

The North Cascades area has inspired people for thousands of years. Artists and crafts people continue to come to the mountains for inspiration. The Golden West Gallery offers visitors a chance to view work produced by people inspired by the North Cascades.

Opening artist receptions and other programs, including hands on workshops for children and adults, are offered throughout the season. Announcements for gallery related events are posted at the visitor center.

The Golden West Gallery is dedicated to the understanding and appreciation of the natural, historic, cultural and artistic landscapes of the North Cascades through the arts. The gallery is a cooperative venture of the resident artists of Stehekin and North Cascades National Park. It is managed by the Arts and Humanities of Stehekin (AHS), a nonprofit group operated by volunteers. If you would like more information, please write to:

Arts and Humanities of Stehekin
PO Box 83
Stehekin, WA 98852
e-mail: stehekinarts@starband.net.

Golden West Visitor Center

Golden West has a deep history. In the late 1920s, materials salvaged from a lakeside resort, the Field Hotel, were used to build the Golden West Lodge. It served as a hotel under a variety of owners until the park took it over in the 1970s and turned it into a visitor center. The old wooden structure was badly in need of renovation.

This project was undertaken in 2001 and completed in 2003, preserving much of the historic fabric of the original building. Now the Golden West continues to be a center of the community and welcomes visitors to Stehekin by helping them discover and explore the region. This historic landmark offers exhibits, information and seasonal ranger programs as well as a community center and headquarters for Lake Chelan National Recreation Area.
During the summer of 2004, the superintendent of Alpi Marittime visited the North Cascades National Park Service Complex, and the two parks have been in contact since. These sister parks can learn from each other’s experience and gain a broader understanding of parks, people and the world.

To explore more of Alpi Marittime, visit: http://www.parks.it/parco.alpi.marittime/index.html.

Research North Cascades

The North Cascades has a local relief of over 8,000 feet, more than 700 glaciers, two major watersheds, old growth forests, and pristine alpine meadows. Over 1,500 vascular plants and 300 vertebrate species have been identified in the area. It has a history of use by indigenous peoples and a complex geologic story involving sedimentary, metamorphic and volcanic processes. The great jumble of peaks that is the North Cascades provides a formidable challenge to any desiring to explore their interior. As a result, a large portion remained roadless and wilderness. With such a varied and relatively protected landscape, there is an abundance of study and research opportunities.

The Park Service, Forest Service, private organizations and universities perform research in the North Cascades. The projects and goals are extremely varied.

A major program in the National Park is the Natural Resource Challenge and its Inventory and Monitoring Program. This ambitious program seeks to acquire information about the species and distribution of vertebrates (such as mammals, birds, amphibians, fishes and reptiles) and plants, air and water quality data, as well as geology and soil information. This data can be used to generate maps, plan future monitoring and restoration work and better manage and preserve the park.

The Forest Service is also conducting varied research projects. Researchers are studying the effects of climate change on various forest types, the dynamics of fire in forests. They are also working on surveying mountain goat populations and monitoring stream health.

University researchers are studying many aspects of the North Cascades. Park staff and a team from Clark University has been monitoring the glaciers over several years. Not only are they studying the retreat of many of the glaciers, but also the invertebrates that live in them. People from the University are studying the effects of sedimentary, metamorphic and volcanic processes. The great jumble of peaks that is the North Cascades provides a formidable challenge to any desiring to explore their interior. As a result, a large portion remained roadless and wilderness. With such a varied and relatively protected landscape, there is an abundance of study and research opportunities.

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This is just a sampling of the people involved and the science that occurs year-round in the park. Together, we are filling in the pieces of the puzzle that is the North Cascades, but there is still much work to be done.

For more information, check out the National Park publication: Natural Notes, or visit: www.fs.fed.us/prwil & www.nps.gov/nwrresearch/
From Mountain Top to Valley Floor:

Exploring the habitats of the North Cascades

Travel from the upper reaches of the North Cascades to their lowlands and you will pass through a multitude of habitats—unique communities of plants and animals. The story of the North Cascades life zones begins high in the mountains where winter snows accumulate to feed glaciers. The glaciers carve the mountains, grind the rocks into mineral-rich "glacial flour" and carry it down slope with streams of meltwater.

Below this region of perpetual snow and ice, you scramble among hardy flowers and clumps of stunted trees growing on rocky outcrops during the short summer. Following the stream lower down the mountainside, you enter the forests. Here an abundance of life thrives all around you—from under fallen logs to the highest branches. Streams join rivers. As they flow from the mountains to a broad river valleys, you meander through riparian habitats. The rivers deposit minerals and nutrients from the mountains to form rich wetlands teeming with aquatic life before flowing out to the sea.

Creatures of the Ice

Glaciers can be described as a life-spring in the North Cascades. Communities down slope and down stream of glaciers depend on the summer run-off. However, glaciers themselves appear to be sterile environments. In fact, glaciers support a variety of life which is still little known.

Some of the easiest organisms to spot are the various forms or glacial and snow-algae. You may see them as pink, yellow, green or purple areas on snow or ice. These organisms can live out their entire life-cycles on snow or ice, using wind blown or deposited minerals and decomposition materials for necessary nutrients.

The algae provides a food source for ice worms (Menenchytraeus solifugus.) Ice worms are very similar to terrestrial worms, but they not only can live on glacial ice, they depend upon it. They are abundant in North Cascade glaciers (surveys suggest upwards of 2,000 worms/square meter) and spend the daylight hours burrowed into the ice. Once the ice is shaded, they come up to feed on algae and bacteria on snow and in slush pools. An evening visit to a glacier may see ice worms which appear as short dark threads scattered on the snow.

Ice worms are not found off of glaciers, not even in perennial snowfields, so each population remains isolated. A major question then is how they dispersed originally. Mysteries surrounding cryo-ecology prompt a second-look at this indicative feature of the North Cascades.

Alpine Meadows

High-alpine habitats are defined by an environment with harsh winters, a short growing season and little soil or moisture. Fragile communities can be found on high slopes populated by plants and animals with unique adaptations.

The mountain goat is one of the famous denizens of high alpine meadows and crags. He travels where few others are able with a legendary sense of cool and unique hooves having strong outer edges and a rubbery sole for superior grip. Because of the isolated spots that mountain goats can access, they have few natural predators. However, they still lead a precarious existence. Mountain goats can eat nearly anything from lichens to herbs to tree branches, but forage can be scarce, especially in winter.

The North Cascades is one of the few places where native mountain goats can be seen. Please enjoy them from a distance. This will help sustain their population. People or dogs approaching the goats usually causes them to move to other areas which may have less desirable forage, which may decrease their chances of survival.

One plant that the goats eat is spreading phlox (Phlox diffusa), known for its beautiful pink flowers and compact, cushion-like form. It is frequently found on exposed slopes otherwise inhabited only by lichens. The plant forms a mat about 2-4 inches thick, but sends down a taproot 8-15 feet long to reach moisture. The compactness of the plant and its convex leaves ease the winds effects and collect windblown soils and snow.

Another plant well-suited to survival in this region is mountain heather (Cassiope and Phyllocladine spp). A common sight to the alpine hiker, heathers grow slowly on stony soils; the plants can be twenty years old or more. Heathers frequently precede forests. The plants gradually create favorable, protected conditions for trees to grow.
Travelers in Flight

Twice each year, three-quarters of North America's bird species undertake incredible long-distance journeys between wintering and breeding grounds. There are two major migrations that occur in the North Cascades every year. November through March, during the chum run up the Skagit, bald eagles come from as far away as Alaska to feed. The Forest Service, the National Park Service and the Nature Conservancy have long conducted surveys of their populations. While there is insufficient baseline data, and winter population varies, the past decade has shown an increase in the number of birds visiting the area. During the winter of 2004-2005, there were over 450 eagles seen on the Skagit during the peak season.

The bald eagles return north in February and March. In April, neotropical birds come from the south. The Rufous hummingbird spends its winters in Mexico but is a common summer sight here. Swainson's thrush, which is easier heard than seen in the forests, journeys to the mountains from as far south as northern Argentina and Paraguay. Unfortunately, many of these birds have been declining as habitat has decreased. Migratory birds pose special conservation problems. To better understand the birds and to work towards their protection, the National Park and Forest are participating in the Park Flight Program and others, working with scientists from Latin American countries to foster education and research.

Highrise Forests

Forests are much more than just trees. Typical western conifer forest, such as those found in the North Cascades, have many layers. The canopy, sometimes up to 300 feet above the forest floor, is dominated by one or two conifer species. The dominate species depends on both altitude and moisture. In the canopy, dozens of bird species make their nests. Other conspicuous residents are squirrels. They can be found nesting in cavities, collecting cones and chasing each other across branches. Less seen are marten and other small carnivores which hunt squirrels.

Beneath the canopy is a layer of shade-tolerant conifers and hardwood trees and shrubs. Maples, dogwood, yew and salmonberry are just a few examples of the plants that occupy this area. Many of these plants are important forage for animals such as elk, deer and bear.

At the bottom layer are various types of sedges, grasses, ferns and finally lichens and mosses. A great deal of activity goes on in this zone. A host of invertebrates including ants, termites, beetles, millipedes, springtails, pillbugs and earthworms live in this lowest layer or in the soil. Amphibians, reptiles, rodents, chipmunks, thrushes, sparrows and numerous others exploit this bounty of small prey as well as some of the understory vegetation. These animals in turn support larger predators such as coyotes and weasels.

Streams and Marshes

Throughout the mountains, water is constantly on the move in streams and rivers. Here, plants and animals must cope with an ever-changing stream bed and annual flooding. As the land levels out, watercourses slow. Silt and decomposing materials settle to form rich soil. The entire watershed is important to the health of the ecosystems that it connects, as well as the livelihood of the diverse organisms that inhabit the region.

Salmon are an icon of the Pacific Northwest. The North Cascades supports populations of 7 anadromous salmonoid species: Chinook (king), coho, chum, pink, sockeye, steelhead and cutthroat trout. Anadromous fish, fish that breed in freshwater streams and spend their adult live in the ocean, are important both economically and environmentally. Salmon are rich in the nutrients that flow through the mountain systems to the sea. When they return to spawn, they die and return nutrients to the streams and, by predation, to the surrounding land. Salmon need cool, clear streams with pools, riffles and clean gravel.

In lowlands and at the edges of lakes, a completely different habitat exists. Wetlands and marshes are fed by very slow water. Abundant moisture, soil and decomposing matter makes these areas particularly rich. Sedges, grasses, cattails, willows and other plants form dense mats and ample breeding grounds for swarms of insects that in turn feed amphibians and populations of resident and migratory waterfowl. Wetlands are valued for their role in helping to maintain watersheds and urban water supplies.