

A GUIDE TO PEOPLE AND PLACES OF THE

UPPER SKAGIT



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NORTH CASCADES NATIONAL PARK SERVICE COMPLEX
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CLASS FIELD DAYS ITINERARY

PEOPLE AND PLACES OF THE UPPER SKAGIT RIVER

JULY 22–25, 2010

FRIDAY

- 9 AM Drive from ELC to Ross Dam Trailhead parking lot
- 9:15–10:00 Hike to Ross Lake (end of haul road)
– Brief stop on trail at a Ross Dam overlook
– Load ourselves and gear on the Mule
- 10:30 AM Welcome to the Wild Upper Skagit
– Rules of the Mule and other safety matters
– Instructor and participant introductions
- Noon Lunch on the Mule near Big Beaver Creek
- 2:45 PM Second stop near May Creek (no rest rooms here)
- 6 PM Arrive at Lightning Horse Camp (our base camp for two nights)
- 7 PM Potluck dinner

SATURDAY

- 7 am Breakfast
- 8 am–Noon Ethnobotany hike along Eastbank Trail
– About a two mile hike, rolling terrain
– Gerry will pick us up with the Mule
– Lunch on the Mule
- 1 PM Quick rest room stop at Boundary Bay Campground
- 3 PM Arrive at International Boundary
- 3:15 PM Stop at Winnebago Flats
– There are toilets here
– Get drinking water and fill water jugs
- 3:45 PM Depart Winnebago Flats on return trip
- 5 PM Arrive back at our camp
- 6:30 PM Potluck dinner

SUNDAY

- 7 AM Breakfast
- 8 AM Break camp and load Mule
- 9 AM Depart on Mule
- 10 AM Arrive at Big Beaver Campground
– There are rest rooms here
– Hike up Big Beaver to old growth cedar grove
(Four miles one way, bring lunch, water, and day-pack)
- Noon-ish Lunch overlooking Big Beaver Creek and Picket Range
- 1:30 PM Return hike to the Mule
- 2 PM Distribute class evaluation form and class review
- 3:30 PM Unload at Ross Guard Station and hike to trailhead
- 4 PM Ross Dam Trailhead and pick up vehicles at Colonial Campground

ABOUT THE COVER

U.S. Forest Service, Mt. Baker Ranger District, 1931 oblique aerial facing 1820 (south), of pre-impoundment Skagit River flood plain; Skymo Creek canyon in lower right, Devil's Creek canyon emerging from middle left. Bald benches on lower valley walls in foreground are burn scars from the 1926 fire that started in Big Beaver River valley. Today, all of the flood plain on both sides of the meandering Skagit River is flooded by Ross Lake reservoir.

ACROSS TERRAIN AND TIME IN THE SKAGIT RIVER VALLEY

R. Mierendorf

THE UPPER SKAGIT VALLEY AND ROSS LAKE BASIN

If you were to look at a map showing the physiography of the entire Cascade Range, you might notice that the range is widest, ca. 160 miles, near the international boundary. In the remainder of the range, all the way to its southern limit in northern California, it averages ca. 60 miles wide. You might also notice that there is only one large, north-south trending mountain valley, wider than any others, that splits the Northern Cascades down the middle—this is the Upper Skagit Valley occupied by today's Ross Lake reservoir. This is only one of many natural characteristics that impart uniqueness to the upper valley.

In contrast to today, for most of the time that humans have lived in this valley, it took a week or more to travel here by canoe and on foot following routes across streams, steep mountainsides, sharp ridges, permanent snow pack, and sometimes glaciers. People came from Puget Sound on the west, from the Columbia River and its tributaries on the east, and from the Fraser River country to the north. Today, we drive these distances in a matter of hours.

At least 10,000 years ago, indigenous Northwest peoples began to visit the valley and the surrounding mountains. They adapted to a landscape that was newly uncovered from the melting of massive glaciers extending across northern Washington, including Puget Sound and Seattle. If we could see the ancestral Skagit River Valley that those early people saw, we might not recognize it, considering how different were the plant and animal communities and the overall ecology. The people, then and now, the river, the land, and all its inhabitants are linked by time and history to this place, which flexes to the dictates of climate, environment, and evolution. Because of this, our best understanding of the present is achieved by knowing something about the past.

THE SHAPING OF THE VALLEY

The headwaters of the Skagit River valley are deeply carved by glaciers, remnants of which remain as local alpine glaciers. In the segment of the Skagit valley occu-

ried by Ross Lake, the shaping ability of the massive, but now extinct Cordilleran glacier is dramatically evident on local mountain ridges and summits. This glacier advanced down the Skagit Valley from British Columbia, widening the valley and smoothing and rounding the formerly sharp-edged ridges (with your eye, follow these smooth ridge lines from the bottoms to the tops of the mountains: where these ridge profiles change to jagged and uneven marks the upper limit of the ice sheet). Between Newhalem and Ross Dam is the ten-mile long Skagit River gorge. This gorge formed as the river sliced through the crystalline core of the North Cascades mountains, powered by meltwater from the Cordilleran ice sheet and surrounding alpine glaciers. Diablo and Gorge reservoirs have inundated most of this gorge. The North Cascades Environmental Learning Center is built where Sourdough Creek, a minor tributary to the Skagit River, has built a large alluvial fan. This large landform is perched on the edge of the Skagit gorge, which remains unseen beneath the aqua blue waters of the reservoir.

SETTLEMENT AFTER GLACIATION

Up-valley from Ross Dam, the ecologies of mountainsides, avalanche slopes, snow-corniced ridges, and glaciers are mirrored in the reservoir waters. Interestingly, Ross is not the first lake to fill the valley, as at least one other existed 18-24,000 years ago, impounded behind glacial ice or debris deposited near Big Beaver valley. Deposits from glacial lake Skymo are visible today as silt and clay beds along the shores of Ross Lake between Rainbow Point and the mouth of Devil's Creek. By ca. 14,000 years ago, the last bits of the glacier that had filled the upper Skagit Valley with a mile-thick sheet of ice had melted away. Sometime afterward, the first humans to see the newly exposed land came into the valley and began to use it for subsistence purposes. One of the first things they noticed was that the mountains here provided varieties of fine-textured rock that could be used to make tools. One of these tool stones is called "Hozomeen chert" (similar to flint) and it is widespread in landforms of the upper valley. Some of the big mountains overlooking the valley, such as Jack Mt., Hozomeen Mt., and Wright Pk., are partially made of this distinctive, mottled gray rock. It can be seen in river

and stream gravels, and it is common in some bedrock exposures, mostly east of Ross Lake. Scattered here and there throughout the upper Skagit valley are the ancient rock quarries where the ancestors of today's Skagit Indians (and other Northwest tribes) gathered, cleaned, and shaped the stone to make knives and other tools. The oldest of these quarries has been radiocarbon dated to 8,400 cal. years old. At present, this is the largest and oldest chert quarry studied in western Washington.

LITTLE SAHARA

Ecology of the upper Skagit valley is unique compared with other areas of western Washington. Because the high and rugged mountains on the west side of the valley (a subrange called "the Pickets") collect most of the moisture from Pacific storms, the east side of the valley experiences a dry, sunny rainshadow. The driest portion of this rainshadow occurs in the vicinity of Lightning Cr. where we are camped. Here, looking closely at the openings in the forest canopy above Ross Lake, you can see large Ponderosa pines; during our hike on this trail, you will see native bunchgrasses, Balsalmroot, and other plants typical of the dry environments of eastern Washington. Before building of Ross Dam and the impoundment of its reservoir, this section of the valley was referred to as "Little Sahara". Not surprisingly, this was an important wintering area for black-tail and mule deer, who browsed on the brush and shrub vegetation that covered Little Sahara. In turn, these large winter deer herds became an important subsistence base for various Northwest indigenous hunters. Currently, there are over 160 pre-contact archeological sites recorded in the upper Skagit valley, representing at least 10,000 years of indigenous use.

THE FIRST WRITTEN RECORD

The first written record of the upper Skagit valley is from Henry Custer's 1859 boundary survey explorations. Guided by knowledgeable Fraser River Indian guides, and traveling in a dugout canoe specially built for this trip near today's Hozomeen, they followed the river all the way to the mouth of Ruby Creek. It was an amazing trip of discovery, interrupted in places by huge log jams requiring them to portage before they could continue. Near today's Cougar Island the river entered a narrow,



1961 PHOTO OF LIGHTNING CREEK GUARD STATION

rock-walled gorge (the beginning of the Skagit gorge) that almost swallowed their canoe before they could find a pull-out. If you examine a contemporary topographic map of this part of the North Cascades, you might notice that many of the geographic features have names reflecting an indigenous origin. This is in part because Custer was a Swiss citizen and he preferred to label local features with names used by his guides. Consequently, "Hozomeen" (an Interior Salish word) today designates a mountain, a lake, and a river; Nohokameen is a glacier on the north slope of Jack Mtn.; Similkameen is a river east of the Skagit; and Chilliwack is a river west of the Skagit.

INDIGENOUS PEOPLE TODAY

Indigenous people continue the ancient tradition of visiting the valley. Although they no longer subsist by the old ways, tribal communities are a key part of the partnership that has formed to manage the archeological sites within the reservoir. Today's three Skagit River tribal governments, the Upper Skagit, Sauk-Suiattle, and Swinomish, along with the Nlakapamux (Lower Thompson) First Nation of British Columbia, provide insight and advice regarding archeological sites and other resources relating to their traditional connection to the valley. The National Park Service and Seattle City Light regularly conduct tribal tours of the valley to discuss management of resources along Ross Lake. Increasingly over the last decade, tribal members have begun to visit the valley and to renew their ancestral and spiritual attachments to this special place.

A TIMELINE OF EVENTS IN THE UPPER SKAGIT

We tend to develop a natural connection to places in the wild Upper Skagit. Place is also about history and the people who came before us and their relationship to the land. The chronology below is offered here as means to place Upper Skagit peoples, past and present, within a timeline of natural and cultural events, so that we may better consider our own relationships with the land.

SOME PRE-CONTACT PERIOD EVENTS (DATED IN YEARS BEFORE PRESENT BY RADIOCARBON TECHNIQUE)

- 24–18,000** A glacial lake occupies the valley where today's Ross Lake now exists.
- 14,500** The large Cordilleran Ice Sheet that covers the northern half of today's Washington, including the North Cascades (and Seattle and Puget Sound as far south as Centralia), begins to melt away.
- CA. 11,000** The ice age elephants (mammoths and mastodons) and Bison, prior to this time fairly abundant in many parts of the unglaciated Pacific Northwest, have become extinct.
- +9000** Earliest evidence of people in the high elevations of Washington State & B.C. & the N. Cascades interior at Cascade Pass, & of the use of Hozomeen chert (a variety of quartz rock similar to flint, used to make tools).
- 8400** Native people begin a long tradition in the Upper Skagit to quarry Hozomeen chert; parts of Jack, Desolation, & Hozomeen mountain are made of these ancient sea-floor rocks; Hozomeen chert use begins to spread beyond the local source areas.
- 6000** Cooler moister climate begins, widespread economic shift to more intensive use of local resources, more complex and diverse technologies, along with more permanent villages.
- 3800** Largest known eruption of Mt. St. Helens deposits 2 in thick layer of yellow, sandy volcanic ash ("Y") across widespread areas of the Pacific Northwest, including the Ross Lake area.
- 2000** Widespread and recurrent use of the upper Skagit floodplain and valley landforms as base camps for hunting and gathering expeditions (mountain goats, deer, beaver, food & medicinal plants).
- 1,400** At Newhalem, under a large boulder, Indian people cooked and preserve mountain goat, bear, and other animals hunted in the surrounding mountains.
- 660** At an important fishery and canoe pull-out, Skagit Indian people dry and smoke salmon along the river near the mouth of today's Goodell Creek.
- 300??** Old World diseases first introduced, with devastating effects to American Indian populations.

CALENDAR DATES (A.D.) OF PEOPLE AND EVENTS IN RECORDED HISTORY IN THE ROSS LAKE VICINITY

- 1730** Indian people of E. Washington acquire horses from Great Basin Indian bands; horses introduced to North America by Spanish explorers in the southwest in the 1500s.
- 1778** Captain Cook's third voyage arrives in the San Juan Islands.
- 1804 (Aug. 12)** Lewis and Clark are first Americans to describe seeing a coyote (lower Missouri River).
- 1814** Alexander Ross makes the first documented (and extremely uncomfortable) crossing of the North Cascades by a non-Indian, over Cascade Pass.
- 1827** Ft. Langley, a Hudson's Bay Co. trading post, is established on the lower Fraser River.
- 1850** The Little Ice Age, a period of alpine glacier growth, ends.
- 1853–1855** Isaac Stevens, territorial governor, signs series of treaties with Indian bands and tribes in W. Washington.
- Aug. 1859** Henry Custer begins canoe trip down the Skagit River from Hozomeen to mouth of Ruby Creek.
- 1861** The U.S. Civil War begins.
- 1870** The first non-Indian inland settlement on the Skagit River is established at Mount Vernon.
- 1872** Yellowstone National Park is established as first national park, and first such park world-wide; it is managed by the U.S. Army.
- Summer, 1872** Smohalla, Wanapum Indian prophet, predicted that the Great Spirit would soon shake the earth to show his displeasure with the encroaching white man.
- Dec. 14, 1872** A major earthquake, estimated to exceed 7 on the Richter scale, is felt throughout north-central Washington; the quake's epicenter is located in the approximate vicinity of today's Ross Lake.
- 1876–1877** A huge log jam at Mount Vernon is finally removed, allowing steamboat navigation up the Skagit River; Otto von Pressentin and others discover a trace of gold along lower Ruby Creek.

CALENDAR DATES CONTINUED »

- 1879** N. E. Goodell establishes a trading post near present-day Newhalem, to supply gold prospectors on Ruby Creek.
- Winter, 1879–80** A gold rush begins, with the lower reach of Ruby Creek packed with prospectors who endured snow depths of 12 ft or more in the upper Skagit River valley; most prospectors access the valley from the lower Fraser River, near today's Hope, B.C.; others access the valley from below the Skagit gorge at Newhalem.
- CA. 1881** N. E. Goodell visits a traditional Skagit Indian long house near today's Marblemount, which he describes as 200 ft long and 50 ft wide with siding of cedar planks 12 ft long and 18 in wide.
- 1884** John McMillan establishes a homestead in the lower Big Beaver valley.
- 1890** Most of the land available for homesteading under the Dawes Act (1887) is claimed in the Marblemount-Newhalem-lower Cascade River vicinity.



JACK MOUNTAIN AND SOURDOUGH LOOKOUT PHOTOGRAPHED IN WINTER BY JOHN SCURLOCK

- 1891** A railroad line reaches Rockport from the west.
- CA. 1895** Tommy Rowland settles across from the mouth of Big Beaver Creek, on the east side of the Skagit River.
- 1897** President Grover Cleveland proclaims the Washington Forest Reserve, which includes the North Cascades and the Upper Skagit.
- 1905** The U.S. Forest Service was created and assumed management of the Upper Skagit Valley.
- 1916** The Skagit River freezes over.
- 1917** The first Sourdough Lookout is built by Frank Davis (son of Lucinda Davis, a pioneering settler); the City of Seattle begins building Gorge Dam, the first of three on the Skagit River.
- 1922** Railroad transportation, to serve dam construction, is completed to Newhalem.
- 1922 (July 29)** John McMillan dies at his ranch in the Big Beaver valley
- 1924** The City of Seattle begins operation of Gorge Dam (a wood crib dam) and powerhouse.
- 1924** Guy Cook (Gerry's grandfather) comes to work at Newhalem, drives the train between Rockport and Diablo.
- 1926** A forest fire started in the Big Beaver valley spread rapidly to burn a large area around Ross Lake.
- 1929** Construction of Diablo Dam is completed.
- 1932** Desolation Lookout is built.
- 1933** A Civilian Conservation Corps crew builds the present-day Sourdough Lookout.

- 1933 Ed Cook (Gerry's dad) works trails for the U.S. Forest Service and stays at the Boundary Guard Station.
- 1939 First concrete is poured in Ross Dam.
- CA. 1943 Clearing begins of the forest that will be inundated behind Ross Dam.
- 1949 The concrete structure of Ross Dam is completed and waters of the Skagit River are impounded.
- 1950 Replacement of the original wooden Gorge Dam by a concrete structure is completed.
- 1952 The first Ross Powerhouse generator is completed and the first power from the dam is supplied to Seattle.
- 1953 The full Ross Dam reservoir height, to an elevation of 1602.5 ft, is reached; waters touch Canadian soil for the first time.
- 1956 Jack Kerouac is fire lookout on Desolation Mountain.
- 1967 Gerry' first year working on Ross Lake.
- 1968 North Cascades National Park Service Complex is established by Congress.
- 1971 Gerry is fire lookout on Sourdough Mountain as new North Cascades Highway is built.
- 1972 The new North Cascades Highway opens, providing the first vehicle route across the North Cascades.
- 1984 Bob's first visit to Ross Lake to start an archeological study for the park, while an employee of WSU.
- 1987 The first of many Hozomeen chert (flint) quarries discovered in the Upper Skagit, dating to 8,400 years ago.
- 1988 Most of the North Cascades National Park Service Complex is formally designated Wilderness by U.S. Congress and entered into the National Wilderness Preservation System.
- 1999 In the spring, Ross Lake is drawn down 134 feet, the lowest level since the reservoir was impounded; archeological investigations continue on Skagit River landscapes previously inundated for 50 years.
- Oct. 2003 One of the largest Skagit River floods on record causes floodplain erosion and builds gravel bars and woody debris piles; heavy rains trigger landslides up Goodell Creek and in the Skagit Gorge above Newhalem.
- 2005 Hozomeen chert toolstone from the Upper Skagit is found in the 9,000 year old soil at Cascade Pass.



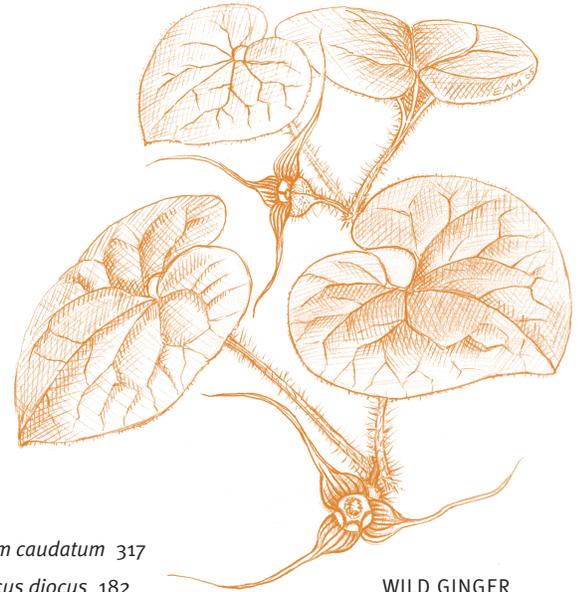
SPEAR POINT MADE OF HOZOMEEN CHERT FROM CASCADE PASS
PHOTOGRAPHED BY BENJAMIN DRUMMOND

CHECKLIST OF NATIVE PLANTS

ALONG THE EAST BANK TRAIL, LIGHTNING CREEK TO DESOLATION TRAILHEAD, ROSS LAKE NATIONAL RECREATION AREA

Each plant is referenced to the appropriate page number in *Plants of the Pacific Northwest Coast* by Jim Pojar and Andy MacKinnon, Lone Pine Publishing, Vancouver, B.C. 1994.

- ▷ arrowleaf balsamroot / *Balsamorhiza sagittata*
- ▷ biscuitroot / *Lomatium dissectum and nudicaule* 222
- ▷ boxwood / *Pachistima myrsinites* 95
- ▷ bunchgrass
- ▷ choke cherry / *Prunus spp.* 48
- ▷ common juniper / *Juniperus communis* 94
- ▷ current / *Ribes spp.* 84-86
- ▷ deerbrush / *Ceanothus sanguineus and velutinus* 91
- ▷ Douglas-fir / *Pseudotsuga menziesii* 32
- ▷ Douglas maple / *Acer glabrum* 93
- ▷ elderberry / *Sambucus spp.* 70
- ▷ fireweed / *Epilobium angustifolium* 206
- ▷ hazelnut / *Corylus cornuta* 92
- ▷ honeysuckle / *Lonicera ciliosa* 69
- ▷ Indian hemp / *Apocynum spp.* 320
- ▷ kinnikinnick / *Arctostaphylos uva-ursi* 67
- ▷ mock orange / *Philadelphus lewisii* 96
- ▷ mountain spray / *Holodiscus discolor* 71
- ▷ Oregon grape / *Mahonia nervosa* 95
- ▷ paper birch / *Betula papyrifera* 47
- ▷ pipsissiwa / *Chimaphila umbellata* 226
- ▷ Ponderosa pine / *Pinus ponderosa* 38
- ▷ red alder / *Alnus rubra* 44
- ▷ serviceberry / *Amelanchier alnifolia* 72
- ▷ thimbleberry / *Rubus parviflorus* 77
- ▷ vine maple / *Acer circinatum* 93
- ▷ western red-cedar / *Thuja plicata* 42
- ▷ western white pine / *Pinus monticola* 39
- ▷ western yew / *Taxus brevifolia* 40
- ▷ Hooker's onion / *Allium acuminatum* 106
- ▷ wild rose / *Rosa nutkana* 74
- ▷ wild strawberry / *Fragaria virginiana* 183
- ▷ yarrow / *Achillea millefolium* 279
- ▷ lodgepole pine / *Pinus contorta* 38
- ▷ red-osier dogwood / *Cornus stolonifera* 90
- ▷ hawkweed / *Hieracium spp.* 273-274
- ▷ maidenhair fern / *Adiantum pedatum* 425



WILD GINGER
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- ▷ wild ginger / *Asarum caudatum* 317
- ▷ goat'sbeard / *Aruncus diocus* 182
- ▷ columbine / *Aquilegia formosa* 180
- ▷ twin flower / *Linnaea borealis* 68
- ▷ Rocky Mountain juniper / *Juniperus scopulorum* 94
- ▷ buffalo-berry / *Shepherdia canadensis* 94
- ▷ spirea / *Spirea douglasii* 81
- ▷ American vetch / *Vicia americana* 192
- ▷ white-veined wintergreen / *Pyrola picta* 225
- ▷ devil's club / *Oplopanax horridus* 82
- ▷ rattlesnake plantain / *Plantago spp.* 328-329
- ▷ willow / *Salix spp.* 88-87
- ▷ false solomon-seal / *Smilacina recemosa* 100
- ▷ Alaska rein-orchid / *Plantanthera alanscensis* 123
- ▷ big-leaf maple / *Acer macrophyllum* 45
- ▷ broad-leaved starflower / *Trientalis latifolia* 322
- ▷ sword fern / *Polystichum munitum* 421
- ▷ twisted stalk / *Streptopus spp.* 101
- ▷ lichens 503-502
- ▷ Arenaria sandwort / *Arenaria capillaries* 138
- ▷ licorice fern / *Polypodium glyeyrrhiza* 424
- ▷ parsely fern / *Cryptogramma crispera* 426
- ▷ Potnetilla / *Potentilla spp.* 186-187

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ROSS LAKE AT SUNRISE PHOTOGRAPHED BY JOHN SCURLOCK

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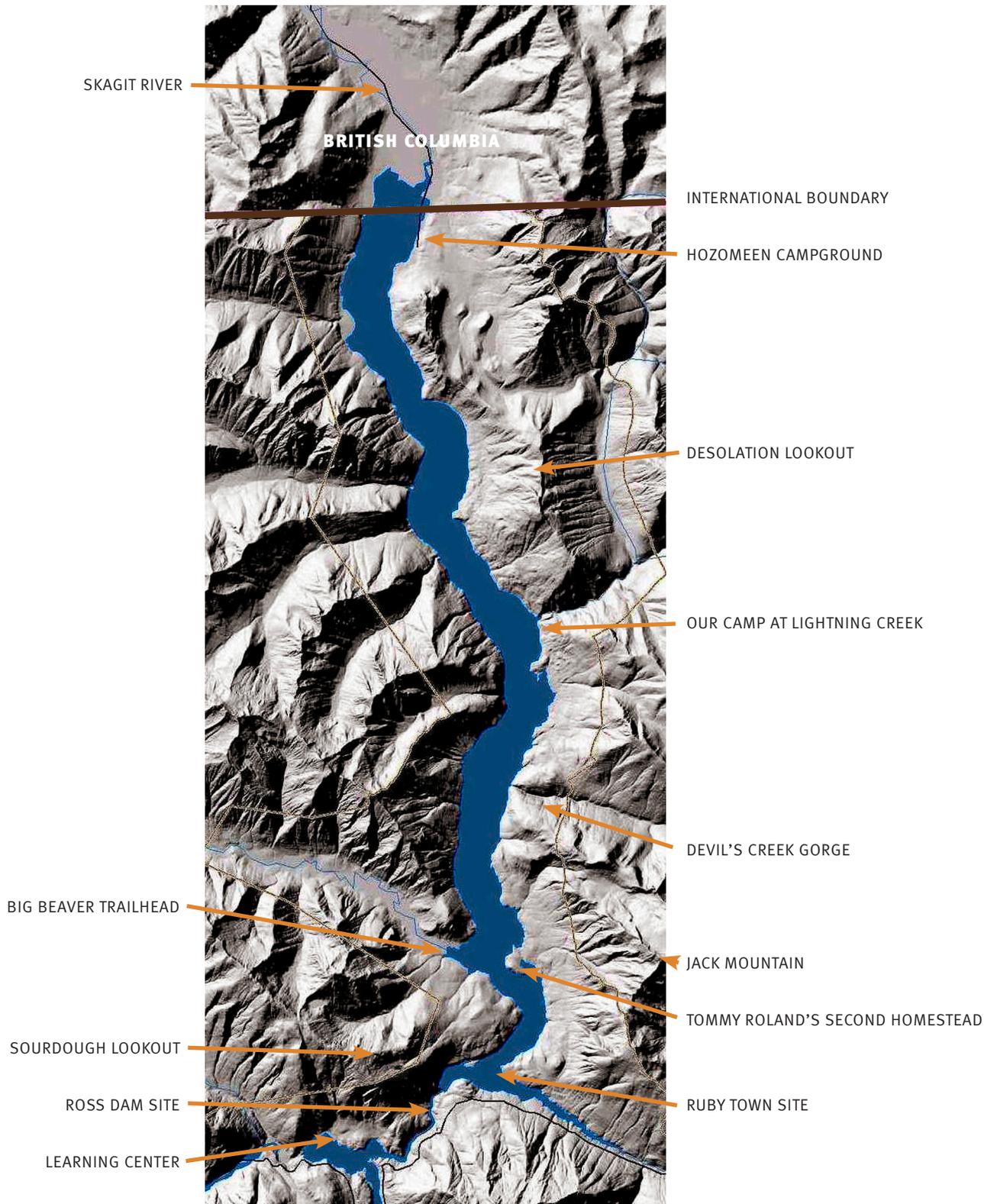
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U.S. NORTH WEST BOUNDARY SURVEY, MAP OF WESTERN SECTION, PUBLISHED 1866



GENERAL LOCATION MAP OF ROSS LAKE