

**VASCULAR PLANT INVENTORY OF SELECTED SITES
HAINES AND VICINITY,
SOUTHEASTERN ALASKA**

Summer 2000

June 2001

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Fairbanks, Alaska**

under contract to

**Bureau of Land Management-Anchorage Field Office
Anchorage, Alaska**

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**Vascular Plant Inventory of Selected Sites, Haines and vicinity,
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Abstract

Bureau of Land Management - Anchorage Field Office manages several scattered and remote parcels in the vicinity of Haines, Alaska, at the northern tip of the Lynn Canal. Most of these holdings are in the subalpine and alpine zones of this rugged landscape and, unlike lower elevations and roadsides, have not been visited by botanists. Previous collections from this area have recorded many plants considered rare to critically imperiled by the Alaska Natural Heritage Program (AKNHP), but most of these sensitive species are known from only 1 or 2 localities.

Alpine, subalpine, and other remote sites were accessed by helicopter, and roadside areas were accessed by car during 2 trips to the Haines area in July and August, 2000. A total of 416 vascular plant species have been documented by over 600 herbarium collections. *Carex hoodii*, a sedge new to Alaska's flora, and *Festuca occidentalis*, a grass for which only a single, highly disjunct locality within Alaska was previously known, were both collected. Sensitive plants documented include 6 ranked critically imperiled (S1), 7 ranked imperiled (S2), and 2 ranked rare (S3) by AKNHP. New localities were recorded for most of these species. *Carex stipata*, *Draba praealta*, *Phalaris arundinacea*, and *Saxifraga adscendens* ssp. *oregonensis*, all sensitive plants, are documented from the Haines area for the first time.

Takhin Ridge, a limestone and granodiorite ridge west of Haines, is noted as being exceptionally rich in species diversity and supporting a unique plant assemblage. Eight of the 15 sensitive plants recorded during this survey were found here, as well as several plants which are more characteristic of interior, continental habitats, and very rare in southeast Alaska.

Permanent herbarium collections documenting this inventory are curated and databased at the University of Alaska Museum Herbarium in Fairbanks. Duplicate specimens are held at herbaria in Sitka and Vladivostok, Russia. Additional information on the location of the tracked plants found has been shared with AKNHP. Recommendations for future inventories and management concerns in the Haines areas are offered.

Vascular Plant Inventory of Selected Sites, Haines and vicinity, southeastern Alaska

Introduction

Bureau of Land Management (BLM) recognizes its legal responsibility to prevent rare plants and animal species from becoming threatened or endangered with extinction in areas under their management. An important aspect of this responsibility is to support inventories in these areas for rare species, determine the localities and habitats in which rare species are likely to occur, and to document known occurrences with permanently curated collections. Sound management decisions that may effect rare taxa can only be made when this information is available to land managers.

Haines is situated at the head of the Lynn Canal, the northern tip of the southeastern Alaskan 'panhandle' (Figure 1). Although this region is within the coastal forest zone, its proximity to major mountain passes leading directly into adjacent interior boreal and continental settings has resulted in a transitional aspect to the flora and fauna. The distributions of several species, which are typically characteristic of only one of these three zones, overlap in this region. In addition, past collecting efforts have documented several rare plant species in the area which are currently being tracked by the Alaska Natural Heritage Program (AKNHP). Due to the ruggedness of the terrain, most collections are from along the limited road systems leading out of Haines and Skagway. Very few botanists have been able to access the more remote, roadless and alpine areas.

BLM manages several remote parcels in the region which have not been previously visited by botanists. A preliminary floristic inventory of these holdings was considered necessary in light of future management concerns or the transfer of any parcels to other management agencies.

Physiographic and Geologic Setting

Glacially carved mountain ranges, deeply incised stream valleys, steep slopes, and a young, emerging coastline characterize the rugged landscape surrounding Haines. Alpine areas above 1200-1500 msm (4000-4500 ft.) are extensive and support icefields rimmed with hanging valley glaciers. The entire region is very geomorphically active; evidence for ice falls, land slides, flooding, and coastal isostatic uplift is prevalent. Remote habitats reached in the subalpine and alpine zones during this survey include rock knobs and outcrops, steep heath-rubble slopes, open mountain hemlock stands, wet meadows, and mesic heath-herbaceous meadows. Inventory sites visited along the road system, and at remote lower elevation areas, include strand beaches, mud flats, active river floodplains and deltas, forested mountain slopes, bogs, and a diversity of human-disturbed habitats. A description and location of the major sites surveyed is found in Appendix B.

Regional bedrock geology of southeastern Alaska is made up of several distinct terranes and lithic assemblages, each of which is highly faulted and composed of diverse rock types (Gehrels and Berg 1994). The local geology of most areas is still poorly known and some areas remain unmapped. Within our survey area, bedrock northeast of the Chilkat-Kelsall river valleys is dominated by Triassic to Tertiary-aged basic intrusive rocks of the Taku terrane. Sites visited in this area are underlain by basalts, granodiorites, diorites, gabbros, and tonalite (Gehrels and Berg 1992). Bedrock in the Klehini, Tsirku,

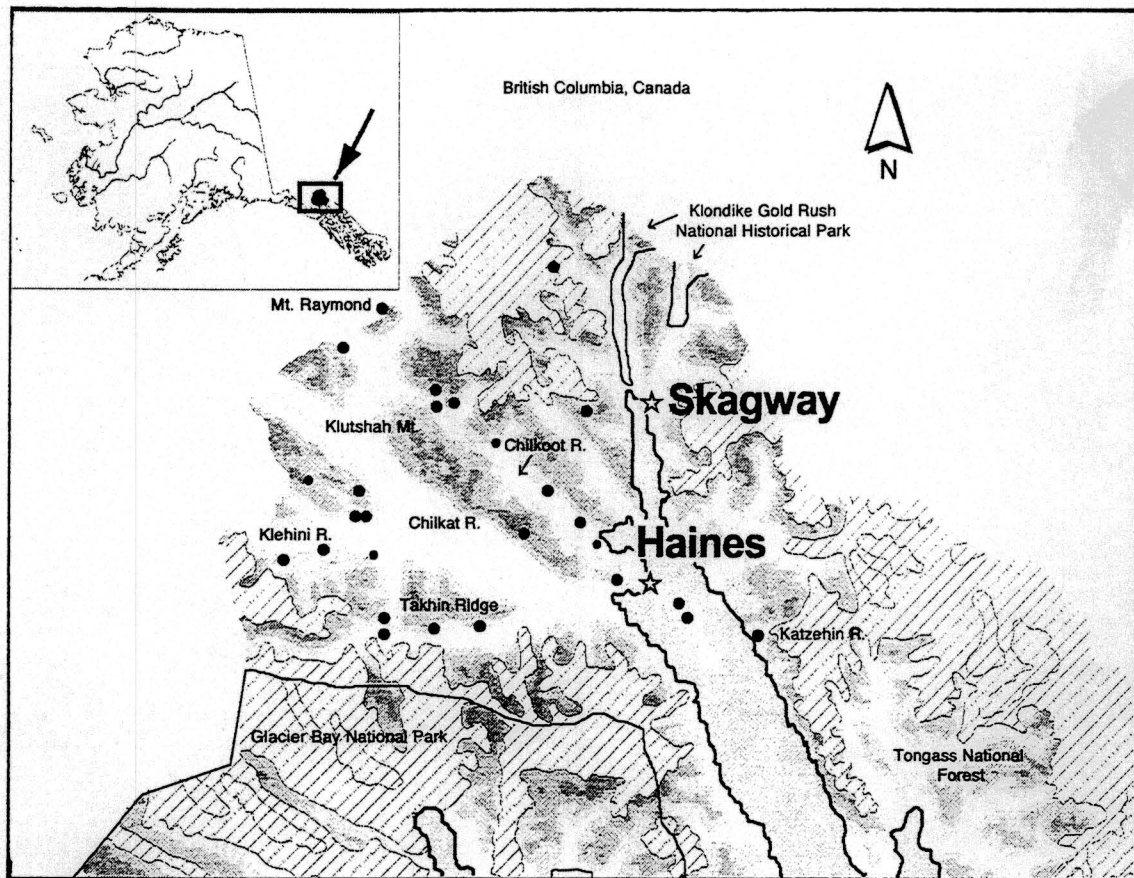


Figure 1. Regional map of Haines, Alaska, and vicinity. Bureau of Land Management holdings include the alpine areas from Takhin Ridge south to Glacier Bay National Park boundary, and most of the alpine zone northeast of Chilkat River and west of Klondike Gold Rush National Historical Park. Approximate collection sites are indicated by solid circles. Exact site locations are mapped and described in Appendix B. Map prepared by S. Raup, P. Duffy, and C. Parker.

and Takhin river drainages to the southwest is a mixture of Tertiary and Cretaceous-aged intrusive rocks, Triassic-aged carbonates, and interbedded volcanic and sedimentary rocks of the Alexander terrane. Sites visited in this region are underlain by gray marble, diorite, and interbedded volcanic and sedimentary rocks (Gehrels and Berg 1992). Collecting sites along major river valley bottoms are underlain by surficial Quaternary alluvial and colluvial deposits.

Regional Vegetation

The Haines area lies within the Pacific coastal forest zone. Tall stands of western hemlock and Sitka spruce dominate most slopes up to the subalpine. Isolated stands of lodgepole pine can be found on drier slopes, uplifted beaches, and larger river deltas. Riparian and other low elevation areas are often dominated by black cottonwood, paper birch, red alder, and tall willow shrubs. Disturbed habitats at all elevations to just below the alpine support Sitka alder thickets. Mountain hemlock is found in the subalpine and tree growth here is often very stunted. The lower alpine zone supports ericaceous low shrub and herbaceous-heath shrub tundra. Poorly drained sites at all elevations support wet sedge meadows, often with scattered medium and tall shrubs. The highest alpine zone, above 1300 m, is dominated by glacier ice and/or very unstable rock slopes with patchy vegetation. These habitats were not included in this survey.

Previous Botanical Collections

Archibald Menzies was the first western naturalist known to have made plant collections in the upper Lynn Canal area. While sailing with Captain Vancouver on a search for the Northwest Passage, Menzies and a few companions took a side trip from Juneau to Chilkat and Chilkoot inlets in July 1794. His small collection is housed at the British Museum Herbarium (BM) (Hultén 1940, Menzies 1993).

During the exploratory phase of coastal Alaska's history many naturalists reached the more southerly areas of southeastern Alaska, but the upper Lynn Canal region was isolated from the commonly used sailing routes. It was over 100 years later before serious naturalists visited the area again. Aurel and Arthur Krause, brothers and German naturalists, spent the winter of 1881-1882 in the vicinity of modern day Haines collecting animal specimens and recording the lives of the Tlinget Indians with whom they lived and hunted (Hultén 1940, Krause and Krause 1993). In May 1882, Aurel returned to Europe while Arthur remained through the summer, making collecting trips to the lower Takhin River, up the Klehini River to the alpine passes into British Columbia, Canada, and up the Taiya River to Chilkoot Pass and the chain of lakes ending at Lindeman Lake. Krause's collections were published by Kurtz (1895) and were distributed among Kurtz's private herbarium, and the herbaria at Uppsala, Sweden (U), St. Petersburg, Russia (LE), and Bremen, Germany (BREM). Some of these collections were lost during World War II, but they continue to be cited through Kurtz's publication. Arthur Krause was an exemplary collector. Though not trained as a botanist and unfamiliar with the flora before his arrival, he nonetheless documented most of the rare plants and several of the exotic (introduced) species we know to exist in the region today.

Of the few additional early collections from the upper Lynn Canal made after the Krause brothers' visit, most notable are those of F. Funston of the U.S. Department of

Agriculture (1893), Fred Colville, botanist on the Harrimen Expedition to Alaska (1899), and A. Hitchcock and R. Kellogg of the U.S. Department of Agriculture and U.S. Forest Service, respectively, who were interested primarily in grasses (1909). The specimens from each of these collectors are held at the U.S. National Herbarium (US) (Hultén 1940).

A wave of collecting began when Jacob P. Anderson arrived in Alaska in 1914. Based in Sitka, and later at Juneau, Anderson not only collected extensively himself from 1914 to 1940, but he encouraged others to plan trips throughout Alaska, and to contribute their specimens to his Juneau Botanical Club herbarium. Among his recruits who botanized in the Haines and Skagway area are Amy Rude, Maxine Williams, Helen Schmuck and Lucille Stonehouse. Anderson's first herbarium in Sitka was destroyed by fire; his second herbarium is currently housed at the Alaska State Museum in Juneau and at the Iowa State University Herbarium (ISC) in Ames, Iowa. Many duplicates are held at the University of Alaska Museum Herbarium in Fairbanks (ALA), and at several other national herbaria.

Recent collections resulting from U.S. Forest Service sponsored surveys and held at ALA include those of M. Stensvold from Goat Lake (1993), and A. Batten and G. Juday from the Warm Pass-Mt. Villard vicinity (1988). C. Rector made a large collection at Klondike Gold Rush National Historical Park which is held at the National Park Service herbarium at Skagway.

Objectives

The primary objectives of this inventory are:

- 1) document the occurrence, habitat, and abundance of all species found that are listed as a 'species of concern' by the USFWS, or are ranked as critically imperiled (S1), imperiled (S2), or rare (S3) at the state level by the Alaska Natural Heritage Program (AKNHP).
- 2) conduct an inventory of the vascular flora of the region at selected upland and remote sites within Bureau of Land Management holdings while focusing on habitats that are suspected of supporting rare or uncommon plants.
- 3) assemble and maintain a permanent voucher collection of the vascular flora documented to be held at the University of Alaska Museum Herbarium, Fairbanks (ALA).
- 4) create and maintain a database of the collection information with the Northern Plant Documentation Center (NPDC) at ALA which will remain available to BLM and to other public agencies and their personnel.
- 5) provide detailed information concerning species being tracked by AKNHP for inclusion into their database.

Methods

Field crew was based in Haines from July 14 - 22, and from August 19 - 23, 2000. Helicopter transport was used daily to access remote localities in the vicinity. A total of 25 remote sites at all elevations were reached by helicopter during the two legs of the survey. Extensive collecting was also undertaken along the road system by car when marginal weather resulted in shorter flight days, or in a portion of the crew being left in Haines. A priority effort was made to survey BLM holdings situated in the alpine and subalpine zones, as these habitats are the least known, botanically, in southeastern Alaska. Remote BLM holdings at mid to low elevations were visited when weather did not permit access to alpine areas. A diversity of habitats and the major bedrock substrates in the area were reached. Unstable slopes, danger from icefalls, dense forest stands, and water prevented us from reaching some habitats on this rugged landscape. Approximate collection sites are indicated in Figure 1 and all sites are listed in Appendix B.

Species lists and brief vegetation descriptions were made for those sites visited for more than 1 - 2 hours. Plant specimens were collected and brought back to Haines each day to be pressed and dried. Final determinations, databasing in 4th Dimension, mounting, and filing was undertaken the University of Alaska Museum Herbarium in Fairbanks (ALA) where collections are permanently held. A complete list of collections is listed in Appendix A. The Alaska Natural Heritage Program (AKNHP) received more detailed information on the location of the rare plants they are currently tracking. A duplicate set of specimens has been sent to the Herbarium at the Institute of Biology and Pedology in Vladivostok, Russia. Several duplicate specimens of taxa uncommon to southeastern Alaska have been sent to the U.S. Forest Service Herbarium in Sitka, Alaska. Voucher collections and plant tissue dried in silica gel was collected from the following Genera in response to requests made from several researchers involved in molecular investigations of these groups: *Poa*, *Caltha*, *Anemone*, *Ranunculus*, *Plantago*, *Draba*, *Puccinellia*, and *Fauria*.

The collections and database at ALA remain in the public domain and are available to all concerned agencies, resource managers, and researchers.

Floristic Results

This survey documents 416 vascular plants from a total of over 600 specimens collected from a diversity of sites and habitats in the Haines vicinity. No species listed as threatened, endangered, or a 'species of concern' by the U.S. Fish and Wildlife Service was found. Fifteen plants listed as critically imperiled to rare by the Alaska Natural Heritage Program (AKNHP) were documented. One species new to Alaska (*Carex hoodii*), and one species representing a second record and locality for Alaska (*Festuca occidentalis*), were also documented.

Our collecting strategy during 2 brief trips to Haines was both judgement-based and opportunistic in its approach. Our priority was to reach subalpine and alpine sites whenever possible, but serious collecting forays were made from the road system near Haines, and at lower elevations by helicopter, when weather conditions limited access to higher sites. Therefore, this survey does not begin to document the entire flora of this diverse and biologically rich area, but it does offer some information and insight into some aspects of the local flora as well as new locality records for several plants being tracked by AKNHP. These observations and species are discussed below.

Takhin Ridge

The alpine and upper subalpine zone at the western end of Takhin Ridge (Figures 2 and 3) is an exceptional site in both species richness and the number of sensitive plants that occur there. Our access was limited to the westernmost end of this ridge from 770 to 1220 msm (2500-4000 ft. elevation) (Figure B-2, Site 4). Bedrock here consists of massive gray marble, whereas the central and eastern portion of this ridge is composed of granodiorite (Gehrels and Berg 1992). Habitats surveyed include alder thicket margins, dwarf willow-forb meadows, dwarf heath patches, herbaceous meadows, screes with scattered individual plants and patches of heath, snowpatch depressions, and solid rock outcrops. Eight of the 15 sensitive plants found during this entire survey were found on Takhin Ridge, and 6 of these, *Cypripedium montanum*, *Sedum divergens*, *Minuartia biflora*, *Saussurea americana*, *Draba praealta*, and *Asplenium trichomanes-ramosum*, were found only here of all sites visited, although they are all known from other localities in the region. *Carex hoodii*, a sedge which is a new species for Alaska's flora, and which will be recommended for listing with the AKNHP, was also found here. In addition, a majority of the 'interior' plants, which are discussed below, are on Takhin Ridge.

An explanation for the diversity observed on Takhin Ridge might be related to the carbonate substrate underlying this site. Limestone, marble, and other types of carbonate and calcareous bedrock frequently support plant assemblages that vary greatly in both species composition and richness from the adjacent, zonal, or more widespread vegetation. The reasons for this are unclear, but the effect is seen repeatedly in many ecosystems. One factor suggested as contributing to this pattern is the variable competitive responses of many plants to the changes in mineral nutrient availability that occur in strongly alkaline soils, or in soils with a high calcium ion concentration. In addition, calcareous bedrock, and the soils that develop on them, are usually very porous, hence these soils tend support plants which are more drought tolerant than other plants which are widespread in the region. This effect may be especially noticeable in the vegetation of moist to wet climates such as coastal Alaska.



Figure 2. Takhin Ridge, western end, in the upper Takhin River valley. The west end of this ridge is the main alpine exposure of this fossiliferous gray marble in the Haines area. Lower elevation fragments lie along the south bank and lower slopes above the Klehini River. Bedrock at the eastern end of the ridge is non-calcareous granodiorite.



Figure 3. Shrub - herb meadows on Takhin Ridge. Floristically diverse and lush forb meadows, scattered medium and dwarf shrubs, screens, and marble outcrops characterize this slope. The site supported 8 of the 15 rare plants found during our survey in the Haines area. Six of these species were found only at this site during our survey. Photos by C.L.Parker.

The occurrence of carbonate bedrock exposures, such as on Takhin Ridge and at a few other scattered sites along the Klehini River, is uncommon in the Haines area where intrusive and volcanic rock dominate. These few calcareous sites contribute significantly to plant diversity in this region.

'Interior' flora elements

Botanists familiar with southeastern Alaska have long noted that the flora of the northern Lynn Canal region included several species which are more common in, or characteristic of, the dry, continental, habitats of interior Alaska and Yukon. These same plants, in turn, are not found further south in the 'Panhandle', nor along the central and western coast of Alaska. One explanation that has been offered is the availability of direct 'dispersal routes' from nearby interior areas through Chilkat Pass, northwest of Haines, and White and Chilkoot passes, northeast of Skagway. The slightly drier climate experienced here, relative to that in the rest of southeastern Alaska, may be a factor as well. Many of these 'interior' plants were collected from Takhin Ridge, a site which, as noted above, may offer an effectively drier habitat due to its marble (carbonate) substrate. *Draba lonchocarpa* var. *lonchocarpa*, *D. juvenilis*, *D. praealta*, *Carex glacialis*, *Zygadenus elegans*, *Calamagrostis purpurascens*, *Delphinium glaucum*, *Potentilla hyparctica*, *P. hookeriana*, *P. nivea*, and *P. diversifolia* all display a continental-centered distribution pattern, and each was collected for the first time in the Haines vicinity on Takhin Ridge. These new records help strengthen the 'interior' floristic element that has been observed in this region.

Introduced species

Our collecting in the immediate vicinity of Haines recorded 2 species believed to be introduced to Alaska (exotics) but which had not been previously documented for this area (Hultén 1968, ALA collections). *Cirsium vulgare* (bull thistle) was collected at the Haines airport and appeared to be well established in several places around town. Within Alaska, it is also known from Fairbanks, Prince of Wales Island, Hyder, and Sitka (ALA collections, Hultén 1941-50). *Polygonum convolvulus* (black bindweed) was collected along Mud Bay Road. This climbing-trailing vine is also known from scattered sites in interior and south central Alaska as well as from Sitka and Hyder (ALA collections, Hultén 1941-50).

Our collection of *Lactuca biennis* (wild lettuce) from the Haines airport was the first specimen to be held at ALA to document this introduced weed. It was, however, collected at Haines 120 years ago by Arthur Krause (Hultén 1941-50, Kurtz 1895), and within Alaska, this plant is still known only from the upper Lynn Canal region. None of these 3 species were recorded during a recent exotic plant survey at Klondike Gold Rush Historical Park near Skagway (Furbish and Jorgenson 2001).

Notable records

Of the following 2 collections, one represents a new record for Alaska and the other is a significant new second locality within Alaska.

***Carex hoodii* Boott (Cyperaceae, Sedge Family)**

Our collection is the first record of this sedge in Alaska's flora. It was growing in a subalpine, open shrub-rich forb meadow on limestone substrate on Takhin Ridge (Figure 3, Figure B-2, Site 4). Our specimen has been identified by Cyperaceae specialist Dr. Tony Reznicek, University of Michigan, Ann Arbor. *C. hoodii* is known from upland and subalpine regions of northwestern North America where it grows in open forests and meadows. It had been previously found northward to southern British Columbia, Canada, and a single collection has documented it at 'Cantung Hot Springs' near Tungsten, Northwest Territory, 500 km northeast of Haines (specimens at MICH and ALA).

Carex hoodii is similar in appearance to *C. macloviana* and *C. pachystachya*, both common in southeastern Alaska. It may have been previously overlooked, or misidentified, by botanists in this region. However, a search by the author at ALA did not find additional, misidentified herbarium collections of *C. hoodii* among specimens of these similar-looking sedges and we therefore assume it is very rare. Future field workers need to be alert for the occurrence of this sedge. It differs from similar sedges in our flora which have bunched, sessile spikes in its having androgynous spikes (staminate flowers above pistillate flowers) and a distinctly bidentate peak on the perigynia. We will recommend that *C. hoodii* be listed as greatly imperiled (S1) in Alaska by AKNHP.

***Festuca occidentalis* Hook. (Poaceae, Grass Family)**

Our collection of this grass is the second record for Alaska. Our specimen is from an open, mature black cottonwood stand on an older terrace of the upper Takhin River floodplain (Figure B-2, Site 6). Plants were found growing in scattered patches within a dense *Shepherdia canadensis* thicket understory. The first Alaskan record for *F. occidentalis* came from a white spruce-western hemlock forest in central Kenai Peninsula (ALA specimen). Identification of both these specimens has been confirmed by fescue specialist Dr. Barbara Wilson, Oregon State University, and locality information has been sent to Dr. Mary Barkworth, Utah State University, for inclusion in the North America Grass Manual.

This fescue is common and widespread in open, dry forests of northwestern North America, northward to central British Columbia, Canada (Pavlick 1983, Calder and Taylor 1968). Our collection represents a range 'connection' between the single Kenai Peninsula record, 850 km to the west, and the plant's previously known contiguous range in coastal and interior British Columbia, 640 km and 480 km to the south and southeast, respectively. Botanists in Alaska need to watch for this grass at additional localities. It is distinctive among Alaska's fescues in being tall, having lax, soft culms, very narrow, involute leaves, many awns which are longer than the corresponding lemma, and by not having the persistent basal leaf sheaths as seen in *F. altaica*, a common fescue of similar height. We will recommend that *Festuca occidentalis* be ranked critically imperiled (S1) in Alaska by AKNHP.

Plants ranked critically imperiled (S1), imperiled (S2), or rare (S3) in Alaska

Agoseris glauca (Pursh) Raf. (Asteraceae, Aster Family)

Ranked G4S1. This plant was collected in mesic herbaceous alpine meadows at 4 sites: Takhin Ridge (Figure B-2, Site 4), Takhin R. Valley (Figure B-2, Site 6), Four Winds Mt. (Figure B-8), and Mt. Raymond (Figure B-9) and on an open, forested river floodplain terrace in the upper Takhin River valley (Figure B-2, Site 6). Its distribution is western North American, and within Alaska it is known from the upper Lynn Canal area and Kachemak Bay. *A. aurantiaca*, ranked G5S1, is similar in appearance to *A. glauca*, and is also known from southeastern Alaska. We used achene beak characters (a gradually tapering peak in *A. glauca*, vs. an abruptly constricted achene beak in *A. aurantiaca*) best described in Hitchcock et al. (1959-1969) to determine our specimens as *A. glauca*. Subspecies have been described for both species, and further taxonomic study is needed for this closely related pair of taxa.

Carex stipata Muhlenb. (Cyperaceae, Sedge Family)

Ranked G5S1. This tall, showy sedge was found growing in a wet, disturbed roadside depression in downtown Haines. Its known distribution spans central North America and Asia, and it is most commonly found in wet and/or disturbed habitats. Within Alaska, it is recorded from downtown Juneau (ALA specimen) and from Ketchikan and Seward (Hultén 1941-1950). Low elevation wetland habitats such as sloughs, saline marshes, and wet meadows, are frequently under-collected in coastal Alaska and this sedge may prove to be more common than these known localities reflect if a greater effort is made to include such habitats in future surveys.

Cypripedium montanum Douglas (Orchidaceae, Orchid Family)

Ranked G4G5S1. A beautiful, large-flowered white lady's slipper which is endemic to northwestern North America (Figure 4). Our specimen was collected in a lush, floristically rich, subalpine meadow on marble substrate on Takhin Ridge (Figure B-2, Site 4). Patches of a few to several dozen plants were found. Additional Alaska collections at ALA are from Iron Mountain, above Klukwan, and from Glacier Bay. Arthur Krause collected this orchid in 1882 from the Tlehini (Klehini) as cited in Kurtz (1895). *C. montanum* is ranked SR (reported, but not documented) in Yukon (Bennett, per. comm.) and R3 (scattered populations with small numbers of plants) in British Columbia (Straley et al. 1985).

Salix planifolia Pursh ssp. *planifolia* (Salicaceae, Willow Family)

Ranked G5T5S1. A medium height shrub which is widespread across most of northern North America but is known only from the upper Lynn Canal region in Alaska. Our specimen was collected along the margin of the Haines airport where a moist ditch supported tall shrubs. *Salix* specialist Dr. George Argus, Canada Museum of Nature, Ottawa, has confirmed the identification of this specimen. Additional Alaskan and neighboring collections are from Mosquito Lake, near Haines (ALA specimen), and



Figure 4. *Cypripedium montanum* Douglas growing in floristically rich meadows at the western end of Takhin Ridge. This orchid is endemic to northwestern North America and ranked greatly imperiled in Alaska. Additional species shown here include *Geranium erianthum*, *Aquilegia formosa*, *Polystichum lonchitis*, *Salix arctica*, and *Valeriana sitchensis*.



Figure 5. *Sedum divergens* S. Watson growing among marble cobbles at the western end of Takhin Ridge. Yellow flower buds can be seen at the tips of most branches. Stems are extending 3-6 cm above the surface of the scree. This small trailing plant is endemic to the northwest coast of North America and is ranked greatly imperiled in Alaska. Leaves of the dwarf willow, *Salix arctica*, can be seen in upper right. Photos by C.L.Parker.

from both Chilkat Pass and Three Guardsman Pass, approximately 110 km northwest of Haines in northwestern British Columbia (Argus 1973, ALA specimens).

Sedum divergens S. Watson (Crassulaceae, Stonecrop Family)

Ranked G5S1. Endemic to the northwest coast of North America. This small succulent plant favors rocky sites, and within Alaska, it is known only from the Haines area (Figure 5). Our collection is from a rocky, marble slope on Takhin Ridge (Figure B-2, Site 4) where plants displayed a trailing habit and grew among loose rocks and dirt in open, disturbed microsites within a dwarf shrub-forb meadow. Hultén's map and key (1968, page 560) do not indicate *S. divergens* as part of the Alaskan flora, though he may have mistakenly combined citations for *S. divergens* and *S. oregonum* on this map. *Sedum oregonum*, ranked G5S3, is only known from a few scattered localities in the central and southern portions of southeastern Alaska (ALA specimens, Hultén 1941-1950, Anderson collection at ISC). More adequate taxonomic treatments distinguishing these 2 plants are offered by Hitchcock et al. (1959-1969) and Douglas et al. (1998). The opposite leaves and short, broad, divergent mature follicles characteristic of *S. divergens* are diagnostic.

Phyllodoce empetriformis (Smith) D. Don (Ericaceae, Heath Family)

Ranked G4S1S2. A deep pink mountain heather known from northwestern North America, but usually found on the interior side of the coastal ranges. Our collections came from alpine heath on two different peaks above the middle Klehini River northwest of Haines; Flower Mountain (Figure B-10) and Four Winds Mountain (Figure B-8). The same species is cited as having been collected in the Klehini (Tlehini) River valley by Arthur Krause in 1882 (Kurtz 1895) and from the White Pass-Summit Lake area north of Skagway (Hultén 1941-1950). Our collections are the first acquired by ALA to document the species as occurring in Alaska.

Eleocharis kamtschatica (C. Meyer) V. Komarov (Cyperaceae, Sedge Family)

Ranked G4S2. This sedge of coastal and saline habitats is known from several scattered sites throughout Alaska. Its range spans boreal North American to southeast Asia. Our 2 collections are from a disturbed wet site adjacent to the Haines airport and from an open saline meadow on the Katzehin River delta. It was also collected by Arthur Krause at Portage Point (modern Haines) (Kurtz 1895). It is ranked R2 (several populations, locally common) in British Columbia (Straley et al. 1985).

Minuartia biflora (L.) Schinz & Thell. (Caryophyllaceae, Chickweed Family)

Ranked G5S2. This tiny circumpolar chickweed is widespread, but known only from widely scattered localities and small populations. Plants are typically very small, hence probably often overlooked by many collectors. In southeastern Alaska it is known from the head of Lynn Canal and from Prince of Wales Island (ALA specimens). We found plants growing in small, open, soil patches on a rocky, marble, alpine slope on Takhin Ridge (Figure B-2, Site 4). Arthur Krause collected *M. biflora* in the vicinity of Chilkat Pass (Kurtz 1895).

Platanthera unalaschcensis (Sprengel) Kurtz (Orchidaceae, Orchid Family)
= *Piperia unalaschcensis* (Sprengel) Rydberg

Ranked G5S2. This slender orchid with small, widely-spaced flowers has a western North American distribution, but is only rarely collected in Alaska where it appears to be restricted to coastal regions. Our specimens were collected from the Takhin River valley; one from subalpine meadows on marble on Takhin Ridge (Figure B-2, Site 4), the other from openings in alder thickets on the Takhin River floodplain (Figure B-2, Site 5). Arthur Krause also collected this orchid from 'N of Tlehini' (Klehini) (Kurtz 1895, specimen at Uppsala (U)).

Saussurea americana DC. (Asteraceae, Aster Family)

Ranked G5S2. A tall saussurea with distinctive triangular leaves which is found in portions of western North America and in the upper Lynn Canal region within Alaska. Our specimen was collected from a subalpine meadow on marble substrate on Takhin Ridge (Figure B-2, Site 4). Additional collections are known from Juneau, Skagway, and Glacier Bay (ALA specimens, Hultén 1941-1950). Arthur Krause collected it 'N of Tlehini' (Klehini) (Kurtz 1895, specimen at Berlin (B)). Ranked R3 (scattered populations with small numbers of plants) in British Columbia (Straley et al. 1985).

Symphoricarpus albus (L.) S.F. Blake (Caprifoliaceae, Honeysuckle Family)

Ranked G5S2. A medium height shrub of central and western North America. West coast populations, including those in Alaska, are considered ssp. *laevigatus* (Fern.) Hultén. In Alaska it is known from the vicinity of Juneau and northward. Our specimen was collected in an open lodgepole pine forest on the lower slopes of Mt. Ripinski, northwest of Haines (Figure B-6). Arthur Krause reportedly collected this shrub nearby at Klukwan in 1882 (Kurtz 1895).

Draba praealta E. Greene (Brassicaceae, Mustard Family)

Ranked G5S2S3. A small, mustard having a western North American range and found growing in a diversity of habitats. In Alaska it is known only from a few interior localities. Our specimen was collected on a rocky, subalpine meadow on marble substrate on Takhin Ridge (Figure B-2, Site 4). It has also been collected nearby in a similar habitat at Chilkat Pass, British Columbia (ALA specimen).

Asplenium trichomanes-ramosum L. (Aspleniaceae, Spleenwort Family)
= *A. viride* Huds.

Ranked G4S3. This small, dark green fern has a northern circumpolar distribution, and is known from several widely scattered localities, usually on limestone, or other types of calcareous bedrock. It is probably under collected, as plants are small and favor cryptic microsites such as small rock crevices and grottos. Our specimen was growing among loose rocks on an alpine marble slope on Takhin Ridge (Figure B-2, Site 4).

Phalaris arundinacea L. (Poaceae, Grass Family)

Ranked G5S3. This tall, showy canary grass is cosmopolitan in distribution, but within Alaska it is found at only a few, widely scattered localities, commonly wet sites associated with springs, lakes, or along the coast. It is occasionally described as being introduced. Some localities in interior Alaska are associated with hot springs and do experience infrequent human activity, but are otherwise remote. Our specimen was collected at the margin of the Haines airport in forb vegetation consisting of both native and 'disturbance adapted' species.

Saxifraga adscendens L. ssp. *oregonensis* (Raf.) Bacigal.

(Saxifragaceae, Saxifrage Family)

Ranked G5S2S3. A tiny slender saxifrage known from western North America. It is typically found in moist, open, and/or rocky microsites in the alpine. Our specimen was collected in rocky, alpine, low heath tundra on the lower slopes of Four Winds Mt. (Figure B-8). Alaskan populations often consist of very small plants, only 2-5 cm tall, hence this species may be overlooked by collectors. Ranked S3S4 in Yukon.

Summary and Recommendations

The results of this survey in the Haines area include documenting the occurrence of *Carex hoodii*, new to Alaska's flora, and a second Alaskan record for *Festuca occidentalis*, previously known from only one site on the Kenai Peninsula. Both of these species will be recommended for listing with the Alaska Natural Heritage Program (AKNHP). A total of 15 plants currently being tracked by AKNHP were found and some are documented from 2 or more localities. Most of these records represent new locations for these sensitive species. Two introduced (exotic) plants are documented for the first time at Haines.

Sensitive species

Botanists working in this area should be alert for additional occurrences of both *Carex hoodii* and *Festuca occidentalis*. *C. hoodii* was found on Takhin Ridge, a remote and completely undisturbed setting. It is similar in appearance to other common tall sedges found in southeastern Alaska, and the characters described in this report will help in distinguishing it. It has possibly been overlooked in the past, and may be restricted to calcareous, or relatively dryer sites, which are uncommon in the region.

F. occidentalis was found in the vicinity of an abandoned airstrip in a remote, roadless area. It was not growing on the airstrip directly, and was widely distributed within the adjacent cottonwood understory. No other introduced or 'weedy' plants were found here, and the chance that this grass was introduced seems possible, but unlikely. Similar habitats in this area need to be surveyed carefully to see if *F. occidentalis* is more widespread. Plants are tall, but slender and inconspicuous; and in August, during our second visit to this site, the culms had bent over and were completely within the shrub canopy, making it very hard to find plants. The only other known occurrence of this grass is from a conifer forest understory in central Kenai Peninsula, which is undisturbed, but not far from a roadway.

Other species that should be watched for during future botany surveys include *Carex stipata*, which could be in either disturbed areas or in moist to wet graminoid meadows, and *Sedum divergens*, currently known from only 3 collections and 2 localities, and could easily be overlooked due to its small, trailing habit.

Sensitive habitat

The western end of Takhin Ridge is described here as being exceptionally unique both in total species richness, and in the number of sensitive and 'interior' plant species found there. It also appeared to be heavily used by mountain goats. Although this portion of Takhin Ridge is remote and difficult to access, even by helicopter, we suggest it be designated as some type of protective category such as an 'Area of Critical Environmental Concern' to acknowledge, and help conserve, this floristically rich site. It is the largest alpine exposure of marble bedrock in the area. The remaining sites underlain by this rock type, exposed as smaller fragments on both sides of the middle Klehini River valley, are at lower elevations, and/or much smaller in surface area relative to the Takhin Ridge site. All are on land currently managed by the State of Alaska. These sites could also be floristically unique. A marble outcrop on the edge of the Klehini River floodplain which we visited briefly did not seem exceptional, although it was the only place we collected *Saxifraga caespitosa*, a plant usually found in the alpine zone.

Future surveys

Our survey was limited by a short time in the field, marginal flying conditions, and the impressive ruggedness and remoteness of the landscape. Even when combining our results with past documented collecting efforts from this area, our knowledge of the flora remains incomplete. Few remote areas have been reached and some habitats have been overlooked almost entirely by botanists. We suggest the flora of the following habitats and settings is poorly known for this area and that future plant surveys could make significant contributions by including such sites in their efforts.

Lands under BLM management:

Icefield nunataks and margins were not visited due primarily to weather constraints. These sites are often more species rich than is suspected but are difficult to access, and within the Haines area, usually involve very steep and unstable terrain. The most massive icefield area managed by BLM is at the head of the Chilkat and Ferebee glaciers and northward to Mt. Foster. This area is often a helicopter-accessed tourist destination out of Skagway. Small nunataks also exist in the Chilkat Range in the icefields at the head of the Davidson Glacier. Any site which is likely to get frequent helicopter landings followed by foot traffic should be checked for the occurrence of sensitive plants, and a survey of any of the larger nunataks would be valuable.

The broad pass in the upper Chilkoot R. which links with the Chilkat R. valley, and the slopes leading up toward Klutshah Mountain west of the small lake in this pass (see Figure B-1) were visited briefly and only a small area was covered. This broad subalpine to alpine setting was unlike any other we visited, however, at elevations above 850 m (2800 ft.), the vegetation was just greening up in late July due to a heavy winter snowpack during the previous winter. A more thorough survey of this area is warranted.

Lands managed by other agencies or parties:

Extensive graminoid wetland meadows and wetland-woodlands dominate the floodplain of the Chilkat River from its mouth upstream to the Tahini River. This setting is unique and very geomorphically dynamic. The flora in such settings in southeastern Alaska have not been well inventoried, and it is likely that many species may exist here that have not yet been documented for the area. *Carex stipata*, *Phalaris arundinacea*, and *Salix planifolia* ssp. *planifolia*, sensitive plants we found near Haines growing in disturbed sites, could possibly be found in this setting also. Access along the Chilkat River could be by river boat or raft, with a smaller craft and/or waders for reaching areas of shallow water and marginal walking. This habitat is entirely within the Alaska Chilkat Bald Eagle Preserve and managed by the Alaska State Parks, Department of Natural Resources. In addition, there are a few scattered private inholdings.

Freshwater aquatic habitats have been overlooked by botanists over most of Alaska. Chilkoot Lake (9 m. elevation) is within BLM management but is fragmented with private inholdings and a State of Alaska campground. The shallow, inlet end, which may be the most productive and species-rich habitat, is within the Alaska Chilkat Bald Eagle Reserve, managed by Alaska State Parks. Chilkat (52 m. elevation) and Mosquito (37 m elevation) lakes are both within State of Alaska land, but are also surrounded by private properties. Both lakes have diverse shore margins within the coastal forest zone and probably support a variety of aquatic plants. Small lakes at higher elevation such as Walker Lake (State of Alaska) and the lake above the Chilkoot R. in the vicinity of Site 3 (Figure B-1) (BLM) appear to support little aquatic vegetation, but should be surveyed if botanists are visiting the area. Aquatic habitats are so poorly known in southeast Alaska that it is difficult to predict what plants might be found, and any serious collecting will undoubtedly contribute to our knowledge significantly.

Tectonically uplifted, low angle beaches along the coast are being rapidly vegetated and often support plant assemblages unique for the region and rich in species. In the Haines vicinity, such settings include the Katzeihin River delta (U.S. Forest Service), along Chilkat Inlet across from Pyramid Harbor (land status uncertain), and at the mouth of the Taiya River near Dyea (State of Alaska? and National Park Service). These sites are often colonized by lodgepole pine and by a broad mixture of species which are otherwise characteristic of upland, alpine, and/or drier habitats. Introduced, disturbance-adapted plants may also be common, especially on sites frequently accessed by humans. Recent inventories on uplifted beaches near Yakutat have resulted in the identification of 2 (and possibly more) new species within the grape fern Genus *Botrychium* (Farrar 2001, M. Stensvold, pers. comm.). Although these habitats have the appearance of being immature, disturbed, or only sparsely vegetated, they should not be overlooked in future surveys.

The inner spit beach and the estuary at the head of Taiyasanka Harbor northeast of Haines were not visited, but from a distance, both settings looked exceedingly undisturbed by coastal processes, as well as by human activity, relative to other bays and river deltas in the region. For these reasons, both may be of interest botanically. They are within State of Alaska lands, but there are a few scattered private inholdings.

Summary

A botanical survey is never 'finished'. The vascular plants of many habitats and sites remain poorly known in the Haines area. The moss, liverwort, and lichen floras are poorly known for the entire area. Future surveys, as well as the findings of local residents familiar with the flora, can continue to make significant findings in this diverse and dynamic region. Botanists at the University of Alaska Museum Herbarium, the U.S. Forest Service, or the National Park Service should be contacted when potentially new plant records are found.

Acknowledgements

Debbie Blank, BLM-Anchorage Field Office, secured funding for this survey under a continuing cooperative agreement with the University of Alaska Museum Herbarium and made many critical arrangements for our travel to, and stay in, Haines. Alan Batten, UAF Museum Herbarium, was a key botanist and driver for our July trip, and has continued to help in innumerable ways back at the Herbarium in Fairbanks. Catherine Pohl, Juneau, also joined us for the July trip. Her contribution as our 'local' botanist was invaluable. Judy Hall of Haines took us to one of her favorite botanical haunts and produced an excellent radio spot about this survey for the local public radio station. Bruce Bennett, Whitehorse, Yukon, and Marta McWhorter and Paul Duffy, Fairbanks, Alaska, bravely volunteered to join Debbie and me for both trips to Haines, demonstrating a dedication beyond my wildest hopes. Their return greatly enhanced our efforts during a shorter second trip in August. Tim Gaffney, Coastal Helicopters, Juneau, was our pilot for both trips....another stroke of good luck, for us anyway! Tim brought confidence and well-timed humor to our daily flights, and always got us home somehow, in good weather and bad. Our evening work was made easier by our hosts in town. Dave Nanny at the Eagle B&B actually seemed to enjoy a bunch of noisy botanists staying up until midnight each night pressing plants and making a big mess in his house. Later, in August, the Fort Seward Lodge made 'lab' space for us in their basement (I don't blame them!), but gave us a lot of work space and a warm furnace room for our wet presses each night.

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APPENDIX A

Vascular Plant Inventory of Selected Sites, Haines and vicinity, southeastern Alaska

Summer 2000

Vascular Plant Collection List

Specimens collected during 2 trips to the Haines area are listed. Collections are databased and held at the University of Alaska Museum Herbarium in Fairbanks (ALA). Scientific nomenclature follows that used at ALA, and synonyms are offered where these names differ from those used in Hultén's Flora of Alaska and Neighboring Territories (1968). Common names come from a variety of popular references. Collection numbers are those of the report author. Localities are described in Appendix B.

The format is as follows:

<i>Scientific name</i>	Common name
Synonym (as appropriate)	
Floristic comments and/or AKNHP rankings (as appropriate)	
Location, collection number	

Aceraceae (Maple Family)

<i>Acer glabrum</i> Torrey Mt. Ripinski trail, Mile 7 Haines Hwy. 9996	Douglas Maple
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Apiaceae (Parsley Family)

<i>Angelica genuflexa</i> Nutt. Chilkoot Lake and lower Chilkoot R. valley 9644 Haines airport, 6 km WNW of town 9882	Kneeling Angelica
<i>Angelica lucida</i> L. Takhin Ridge, W end, upper Takhin R. valley 9540	Sea Watch
<i>Cicuta douglasii</i> (DC.) J.M.Coult. & Rose Haines, Mud Bay Road S of town 9949	Water Hemlock
<i>Conioselinum pacificum</i> (S. Wats.) J.M.Coult. & Rose = <i>Conioselinum chinense</i> (L.) BSP. Haines airport, 6 km WNW of town 9925 Mt. Raymond 10188	Pacific Hemlock Parsley
<i>Heracleum lanatum</i> Michaux upper Takhin R. valley 9880	Cow Parsnip
<i>Ligusticum scoticum</i> L. Chilkoot Lake and lower Chilkoot R. valley 9592 Haines, Mud Bay Road S of town 9944	Beach Lovage
<i>Osmorhiza chilensis</i> Hook. & Arn. Chilkoot Lake and lower Chilkoot R. valley 9639 Takhin R. valley 9844	Mountain Sweet-Cicely
<i>Osmorhiza purpurea</i> (J.M.Coult. & Rose) Suksd. Takhin Ridge, W end, upper Takhin R. valley 9685 upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9802 Mt. Raymond 10097	Purple Sweet Cicely

Araceae (Arum Family)

<i>Lysichiton americanus</i> Hultén & H. St. John Chilkoot Lake and lower Chilkoot R. valley 9627	Skunk Cabbage
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Araliaceae (Ginseng Family)

<i>Oplopanax horridus</i> (Smith) Miq. = <i>Echinopanax horridum</i> (Smith) Decne. & Planch. upper Takhin R. valley 9873	Devil's Club
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Aspleniaceae (Spleenwort Family)

<i>Asplenium trichomanes-ramosum</i> L. = <i>A. viride</i> Hudson Ranked G4S3 by AKNHP, scattered circumpolar distribution in Northern Hemisphere Takhin Ridge, W end, upper Takhin R. valley 9731	
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Athriaceae (Lady Fern Family)

- Athyrium filix-femina* (L.) Roth
Chilkoot Lake and lower Chilkoot R. valley 9632 Lady Fern
- Cystopteris fragilis* (L.) Bernh.
Takhin Ridge, W end, upper Takhin R. valley 9577, 9726
Klehini R. valley, 1.5 km above Herman Cr. 10065 Fragile Fern
- Dryopteris expansa* (C.Presl) Fraser-Jenk. & Jermy
= *D. dilatata* (Hoffm.) A. Gray
upper Chilkoot R. valley 9498 Sheild Fern
- Gymnocarpium dryopteris* (L.) Newman
upper Chilkoot R. valley 9504
Chilkoot Lake and lower Chilkoot R. valley 9658
upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9794
Klehini R. valley, 1.5 km above Herman Cr. 10152 Oak Fern
- Polystichum lonchitis* (L.) Roth
Takhin Ridge, W end, upper Takhin R. valley 9532 Mountain Holy Fern

Asteraceae (Aster Family)

- Achillea borealis* Bong.
Takhin R. valley 9834
Katzehin R. delta 10017 Yarrow
- Agoseris glauca* (Pursh) Raf.
Ranked G4G5S1 by AKNHP, northcentral and northwestern North American distribution
Takhin Ridge, W end, upper Takhin R. valley 9701
Takhin R. valley 9832
Four Winds Mt. 10067
Mt. Raymond 10093
- Anaphalis margaritacea* (L.) Benth. & Hook. F.
Mt. Ripinski trail, Mile 7 Haines Hwy. 9991 Pearly Everlasting
- Antennaria alpina* (L.) Gaertner
= *A. friesiana* (Trautv.) Ekman s. lat. *in part*
Takhin Ridge, W end, upper Takhin R. valley 9550 Alpine Pussytoes
- Antennaria friesiana* (Trautv.) E. Ekman subsp. *neolaskana* (A.E. Porsild) R.J. Bayer & Stebbins
= *A. friesiana* (Trautv.) Ekman s. lat. *in part*
Takhin Ridge, W end, upper Takhin R. valley 9708
Flower Mt., upper Porcupine Cr. 10135
- Antennaria friesiana* (Trautv.) E. Ekman s. lat.
upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9777
- Antennaria monocephala* DC.
Takhin Ridge, W end, upper Takhin R. valley 9708
Flower Mt., upper Porcupine Cr. 10139
- Antennaria pulcherrima* (Hook.) E. Greene
Haines airport, 6 km WNW of town 9885
- Antennaria rosea* (D.C. Eaton) E. Greene
Takhin Ridge, W end, upper Takhin R. valley 9700
- Arnica alpina* (L.) Olin subsp. *tomentosa* (J. Macoun) Maguire
Takhin Ridge, W end, upper Takhin R. valley 9541
- Arnica chamissonis* Less.
Haines airport, 6 km WNW of town 9910
- Arnica latifolia* Bong.
Takhin Ridge, W end, upper Takhin R. valley 9548
upper Takhin R. valley 9851
Flower Mt., upper Porcupine Cr. 10108
Mt. Kashagnak 10178 Mountain Arnica
- Arnica lessingii* E. Greene
Tohitkah Mt. 10193 Lessing's Arnica
- Artemisia arctica* Less.
Takhin Ridge, W end, upper Takhin R. valley 9556, 9715
Four Winds Mt. 10080 Arctic Wormwood
- Artemisia tilesii* Ledeb.
Takhin Ridge, W end, upper Takhin R. valley 9680 Wormwood
- Aster modestus* Lindley
Takhin R. valley 9839
Klehini R. valley, 1.5 km above Herman Cr. 10151 Great Northern Aster
- Aster subspicatus* Nees
Haines airport, 6 km WNW of town 9918 Douglas' Aster
- Chrysanthemum arcticum* L.
Chilkoot Lake and lower Chilkoot R. valley 9590 Arctic Daisy
- Cirsium vulgare* (Savi & Savile) Ten.
Haines airport, 6 km WNW of town 9933 Bull Thistle
- Erigeron humilis* Graham
Takhin Ridge, W end, upper Takhin R. valley 9720
Four Winds Mt. 10068 Arctic Daisy
- Erigeron peregrinus* (Pursh) E. Greene
Chilkoot Lake and lower Chilkoot R. valley 9649
upper Norse R. 9965
Tohitkah Mt. 10164 Subalpine Daisy

<i>Hieracium albiflorum</i> Hook. upper Takhin R. valley 9858 Takhin R. valley 10056	White-flowered Hawkweed
<i>Hieracium triste</i> Willd. upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9776 upper Norse R. 9964 Khehini R. valley, Little Salmon R. vic. 10107 Flower Mt., upper Porcupine Cr. 10132	Woolly Hawkweed
<i>Lactuca biennis</i> (Moench) Fernald Haines airport, 6 km WNW of town 9917	Wild Lettuce
<i>Madia glomerata</i> Hook. Haines airport, 6 km WNW of town 9872	Tarweed
<i>Matricaria matricarioides</i> (Less.) Porter Haines airport, 6 km WNW of town 9915	Pineapple Weed
<i>Petasites frigidus</i> (L.) Fries var. <i>frigidus</i> Chilkat R. headwaters, 5 km SE of Klukwah Mt. 9528 Takhin R. valley 9846	Coltsfoot
<i>Prenanthes alata</i> (Hook.) A. Dietr. Chilkoot Lake and lower Chilkoot R. valley 9659 Haines, Mud Bay Road S of town 9934	Rattlesnake Root
<i>Saussurea americana</i> DC. Ranked G5S2 by AKNHP, northwestern North American distribution Takhin Ridge, W end, upper Takhin R. valley 9713	American Sawwort
<i>Senecio triangularis</i> Hook. upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9788 Mt. Raymond 10189	Arrow-leaved Groundsel
<i>Senecio vulgaris</i> L. Haines airport, 6 km WNW of town 9911	
<i>Solidago lepida</i> DC. Mt. Ripinski trail, Mile 7 Haines Hwy. 9992	
<i>Solidago multiradiata</i> Aiton Takhin Ridge, W end, upper Takhin R. valley 9718	Golden Rod
<i>Taraxacum kamtschaticum</i> Dahlst. Mt. Raymond 10087	
<i>Taraxacum officinale</i> G. Weber upper Takhin R. valley 9856	Dandelion
Balsaminaceae (Touch-me-Not Family)	
<i>Impatiens noli-tangere</i> L. Haines airport, 6 km WNW of town 9899	Touch-me-not
Betulaceae (Birch Family)	
<i>Alnus rubra</i> Bong. Mt. Ripinski trail, Mile 7 Haines Hwy. 9999	Red Alder
<i>Alnus sinuata</i> (Regel) Rydb. Chilkoot Lake and lower Chilkoot R. valley 9595 Katzehin R. delta 10035	Sitka Alder
Boraginaceae (Borage Family)	
<i>Mertensia maritima</i> (L.) A. Gray Haines, Mud Bay Road S of town 9943	Sea Bluebells, Oysterleaf
<i>Myosotis alpestris</i> F. W. Schmidt Takhin Ridge, W end, upper Takhin R. valley 9564	Forget-me-not
Brassicaceae (Mustard Family)	
<i>Arabis divaricarpa</i> Nelson Takhin Ridge, W end, upper Takhin R. valley 9705	
<i>Arabis drummondii</i> A. Gray Takhin Ridge, W end, upper Takhin R. valley 9705	
<i>Arabis hirsuta</i> (L.) Scop. subsp. <i>eschscholtziana</i> (Andrz.) Hultén Takhin Ridge, W end, upper Takhin R. valley 9585, 9721 upper Takhin R. valley 9861	Hairy Rockcress
<i>Arabis hirsuta</i> (L.) Scop. subsp. <i>pyncocarpa</i> (M. Hopk.) Hultén Haines, Mud Bay Road S of town 9945	
<i>Arabis kamchatica</i> Fischer = <i>A. lyrata</i> L. ssp. <i>kamchatica</i> (Fischer) Hultén Takhin Ridge, W end, upper Takhin R. valley 9587 Khehini R. valley, 1.5 km above Herman Cr. 10158	Kamchatka Rockcress
<i>Barbarea orthoceras</i> Ledeb. Haines airport, 6 km WNW of town 9930	Wintercress
<i>Cakile edentula</i> (Bigelow) Hook. Katzehin R. delta 10026	Sea Rocket
<i>Cardamine bellidifolia</i> L. upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9809 Flower Mt., upper Porcupine Cr. 10124	Alpine Bittercress

- Cardamine umbellata* E. Greene
Takhin R. valley 9828
Chilkoot Lake and lower Chilkoot R. valley 9599
- Draba borealis* DC.
Klehini R. valley, 1.5 km above Herman Cr. 10064
- Draba cana* Rydb.
Takhin Ridge, W end, upper Takhin R. valley 9736
- Draba cinerea* J.E. Adams
Takhin Ridge, W end, upper Takhin R. valley 9738
- Draba crassifolia* Graham
Four Winds Mt. 10079
- Draba juvenilis* Kom.
= *D. longipes* Raup
Four Winds Mt. 10076
- Draba lonchocarpa* Rydb. var. *lonchocarpa*
Takhin Ridge, W end, upper Takhin R. valley 9749
Four Winds Mt. 10073
- Draba praealta* E. Greene
Ranked G5S2S3 by AKNHP, interior northwestern North American distribution
Takhin Ridge, W end, upper Takhin R. valley 9738
- Draba stenoloba* Ledeb.
Takhin Ridge, W end, upper Takhin R. valley 9584, 9748
upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9800
- Erysimum cheiranthoides* L.
Haines, Mud Bay Road S of town 9939
- Thlaspi arvense* L.
Klehini R. valley near mi 33 Haines Hwy. 9981

Bittercress

Wormseed

Penny Cress

Campanulaceae (Harebell Family)

- Campanula lasiocarpa* Cham.
upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9774
Flower Mt., upper Porcupine Cr. 10130
- Campanula rotundifolia* L.
Takhin Ridge, W end, upper Takhin R. valley 9693
Haines, Mud Bay Road S of town 10000
Klehini R. valley, 1.5 km above Herman Cr. 10154

Mountain Harebell

Common Harebell

Caprifoliaceae (Honeysuckle Family)

- Linnaea borealis* L.
upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9780
Tohitkah Mt. 10198
- Sambucus racemosa* L.
Chilkoot Lake and lower Chilkoot R. valley 9619
- Symphoricarpos albus* (L.) S.F.Blake ssp. *laevigatus* (Fern.) Hultén
Ranked G5T5Q2 by AKNHP, northwestern North American distribution
Mt. Ripinski trail, Mile 7 Haines Hwy. 9995
- Viburnum edule* (Michaux) Raf.
Chilkoot Lake and lower Chilkoot R. valley 9614

Twinflower

Elderberry

Common Snowberry

Highbush Cranberry

Caryophyllaceae (Chickweed Family)

- Cerastium arvense* L.
Mt. Ripinski trail, Mile 7 Haines Hwy. 9990
- Cerastium beringianum* Cham. & Schldl.
Takhin Ridge, W end, upper Takhin R. valley 9573, 9729
- Cerastium fontanum* Baumg.
Chilkoot Lake and lower Chilkoot R. valley 9628
upper Takhin R. valley 9871
- Honckenya peploides* (L.) Ehrh.
Chilkoot Lake and lower Chilkoot R. valley 9591
Katzehin R. delta 10038
- Minuartia biflora* (L.) Schinz & Thell.
Ranked G5S2 by AKNHP, northern circumpolar distribution
Takhin Ridge, W end, upper Takhin R. valley 9586, 9760
- Minuartia rubella* (Wahlenb.) Graebner
Takhin Ridge, W end, upper Takhin R. valley 9562, 9757
- Moehringia lateriflora* (L.) Fenzl
Takhin Ridge, W end, upper Takhin R. valley 9575, 9733, 9734
- Sagina saginoides* (L.) Karsten
Flower Mt., upper Porcupine Cr. 10122
- Silene acaulis* L.
Takhin Ridge, W end, upper Takhin R. valley 9552
- Spergularia canadensis* (Pers.) G. Don
Haines, Mud Bay Road S of town 9938
Katzehin R. delta 10024
- Stellaria borealis* Bigelow subsp. *borealis*
Chilkoot Lake and lower Chilkoot R. valley 9626
Katzehin R. delta 10020, 10021

Mouse-ear Chickweed

Seabeach Sandwort

Grove Sandwort

Moss Campion

Boreal Starwort

- Stellaria calycantha* (Ledeb.) Bong. Northern Starwort
Haines airport, 6 km WNW of town 9922
- Stellaria crassifolia* Ehrh.
Chilkoot Lake and lower Chilkoot R. valley 9661
- Stellaria humifusa* Rottb. Low Chickweed
Chilkoot Lake and lower Chilkoot R. valley 9593
Haines, Mud Bay Road S of town 10006
Katzehin R. delta 10028
- Stellaria monantha* Hultén
Mt. Raymond 10098

Chenopodiaceae (Goosefoot Family)

- Atriplex patula* L. var. *obtusata* (Cham.) C.L. Hitchc
= *A. drymarioides* Standley
Haines, Mud Bay Road S of town 9947
- Atriplex patula* L. s. lat. Orache
= *A. alaskensis* S. Wats. in part
Haines, Mud Bay Road S of town 9947, 10004
Katzehin R. delta 10036
- Chenopodium album* L. Lamb's Quarters
Haines airport, 6 km WNW of town 9919

Cornaceae (Dogwood Family)

- Cornus canadensis* L. Bunchberry, Dwarf Dogwood
upper Chilkoot R. valley 9499
Chilkoot Lake and lower Chilkoot R. valley 9652
- Cornus canadensis_x_suecica* L.
upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9819
- Swida stolonifera* (Michx.) Rydb. Red-osier Dogwood
Chilkoot Lake and lower Chilkoot R. valley 9603

Crassulaceae (Stonecrop Family)

- Rhodiola integrifolia* Raf. Roseroot
Takhin Ridge, W end, upper Takhin R. valley 9539
- Sedum divergens* S. Watson
= *S. oregonum* Nutt. ? sensu Hultén
Ranked G5?S1 by AKNHP, endemic to coastal northwestern North America
Takhin Ridge, W end, upper Takhin R. valley 9698

Cryptogrammeae (Mountain Parsley Family)

- Cryptogramma acrostichoides* R. Br. Parsley Fern
= *C. crispa* (L.) R. Br. var. *acrostichoides* (R.Br.) Clarke
Takhin Ridge, W end, upper Takhin R. valley 9677
upper Takhin R. valley 9877
- Cryptogramma sitchensis* (Rupr.) T.Moore
= *C. crispa* (L.) R. Br. var. *sitchensis* (Rupr.) Christens.
upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9782

Cyperaceae (Sedge Family)

- Carex anthoxanthea* C.Presl
Mt. Raymond 10091
- Carex brunnescens* (Pers.) Poiret
Chilkoot Lake and lower Chilkoot R. valley 9642
upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9812
Flower Mt., upper Porcupine Cr. 10131
- Carex canescens* L. Silvery Sedge
Chilkoot Lake and lower Chilkoot R. valley 9601
Haines airport, 6 km WNW of town 9914
- Carex diandra* Schrank
Haines airport, 6 km WNW of town 9912
- Carex flava* L.
Takhin R. valley 9824
- Carex garberi* Fernald subsp. *bifaria* (Fernald) Hultén
Takhin R. valley 9838
- Carex glacialis* Mackenzie
Takhin Ridge, W end, upper Takhin R. valley 9580
- Carex gmelinii* Hook. & Arn.
Haines, Mud Bay Road S of town 9950
Katzehin R. delta 10043
- Carex hepburnii* Boott
= *C. nardina* E. Fries
Takhin Ridge, W end, upper Takhin R. valley 9579, 9697
- Carex hoodii* W. Boott
New to Alaska, range extension from southern British Columbia, will be ranked by AKNHP
Takhin Ridge, W end, upper Takhin R. valley 9730

- Carex kelloggii* W. Boott
Chilkoot Lake and lower Chilkoot R. valley 9625
Takhin R. valley 9829
- Carex lachenalii* Schkuhr
upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9789
Tohitkah Mt. 10169
- Carex limosa* L.
Haines airport, 6 km WNW of town 9916
- Carex lyngbyei* Hornem.
Haines airport, 6 km WNW of town 9895
Haines, Mud Bay Road S of town 9948
Katzehin R. delta 10022
- Carex macloviana* d'Urv.
Chilkoot Lake and lower Chilkoot R. valley 9629
Takhin R. valley 9830
upper Takhin R. valley 9863
upper Norse R. 9962
Mt. Kashagnak 10174
- Carex macrochaeta* C. Meyer
Takhin Ridge, W end, upper Takhin R. valley 9741
- Carex media* R. Br.
Takhin Ridge, W end, upper Takhin R. valley 9732
- Carex mertensii* Prescott
Chilkoot Lake and lower Chilkoot R. valley 9624
- Carex micropoda* C. Meyer
= *C. pyrenaica* Wahlenb. ssp. *micropoda* (C. Meyer) Hultén
upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9778
Flower Mt., upper Porcupine Cr. 10112
- Carex nigricans* C. Meyer
upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9808
Burro Cr., above Taiya Inlet 9959
Flower Mt., upper Porcupine Cr. 10142
Tohitkah Mt. 10170
- Carex oederi* Retz.
Haines airport, 6 km WNW of town 9904
- Carex pauciflora* Light.
Chilkoot Lake and lower Chilkoot R. valley 9971
- Carex pluriflora* Hultén
upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9823
Chilkoot Lake and lower Chilkoot R. valley 10008
- Carex podocarpa* R. Br.
Takhin Ridge, W end, upper Takhin R. valley 9739
upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9817
- Carex scirpoidea* Michaux
Takhin Ridge, W end, upper Takhin R. valley 9530
- Carex siichensis* Prescott
upper Chilkoot R. valley 9506
Takhin R. valley 9849
- Carex spectabilis* Dewey
upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9805
Flower Mt., upper Porcupine Cr. 10134
- Carex stipitata* Muhl.
Ranked G5S1 by AKNHP, distribution in temperate and northern North America including coastal SE Alaska
downtown Haines 9660
- Carex utriculata* Boott
= *C. rhynchophysa* C. Meyer
Haines airport, 6 km WNW of town 9905
- Eleocharis kamtschatica* (C. Meyer) V. Komarov
Ranked G4S2 by AKNHP, scattered in northern North America, Kamchatka, and Japan
Haines airport, 6 km WNW of town 9929
Katzehin R. delta 10019
- Eriophorum angustifolium* Honck.
upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9810
- Eriophorum russeolum* Fries
Chilkoot Lake and lower Chilkoot R. valley 9975
Tohitkah Mt. 10191
- Eriophorum scheuchzeri* Hoppe
Takhin R. valley 9850
- Scirpus microcarpus* C. Presl
Chilkoot Lake and lower Chilkoot R. valley 9622
downtown Haines 10200
- Trichophorum caespitosum* (L.) Hartm.
upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9803
- Droseraceae (Sundew Family)**
- Drosera rotundifolia* L.
Chilkoot Lake and lower Chilkoot R. valley 9979
- Spike Rush
- Tall Cottongrass
- Bulrush
- Roundleaf Sundew

Elaeagnaceae (Oleaster Family)		
<i>Shepherdia canadensis</i> (L.) Nutt.	Takhin Ridge, W end, upper Takhin R. valley 9692 Takhin R. valley 10060	Soapberry
Empetraceae (Crowberry Family)		
<i>Empetrum hermaphroditum</i> (Lange) Hagerup = <i>E. nigrum</i> L. ssp. <i>hermaphroditum</i> (Lange) Bocher	Takhin Ridge, W end, upper Takhin R. valley 9533	Crowberry
Equisetaceae (Horsetail Family)		
<i>Equisetum arvense</i> L.	Chilkoot Lake and lower Chilkoot R. valley 9613	Meadow Horsetail
<i>Equisetum variegatum</i> Schleicher	Takhin Ridge, W end, upper Takhin R. valley 9702 Takhin R. valley 9845	
Ericaceae (Heath Family)		
<i>Arctostaphylos uva-ursi</i> (L.) Sprengel	Takhin Ridge, W end, upper Takhin R. valley 9572	Kinnikinnik
<i>Arctous rubra</i> (Rehder & E. Wilson) Nakai = <i>Arctostaphylos rubra</i> (Rehder & E. Wilson) Fern.	Takhin Ridge, W end, upper Takhin R. valley 9712	Red Bearberry
<i>Cassiope mertensiana</i> (Bong.) D. Don	Chilkat R. headwaters, 5 km SE of Klukwah Mt. 9526	White Mountain Heather
<i>Cassiope stelleriana</i> (Pallas) DC.	Chilkat R. headwaters, 5 km SE of Klukwah Mt. 9524	Alaska Moss Heather
<i>Cassiope tetragona</i> (L.) D. Don	Takhin Ridge, W end, upper Takhin R. valley 9581, 9695	Mountain Heather
<i>Kalmia polifolia</i> Wangenh.	Chilkoot Lake and lower Chilkoot R. valley 9973	Bog Laurel
<i>Ledum palustre</i> L. subsp. <i>decumbens</i> (Aiton) Hultén	Khehini R. valley, Little Salmon R. vic. 10101 Tohitkah Mt. 10192	Labrador Tea
<i>Loiseleuria procumbens</i> (L.) Desv.	Burro Cr., above Taiya Inlet 9960	Alpine Azalea
<i>Menziesia ferruginea</i> Smith	upper Chilkoot R. valley 9505	False Azalea
<i>Oxycoccus microcarpus</i> Turcz. ex Rupr.	Chilkoot Lake and lower Chilkoot R. valley 9972	Bog Cranberry
<i>Phyllodoce aleutica</i> (Sprengel) A. A. Heller	Takhin Ridge, W end, upper Takhin R. valley 9545	Mountain Heather
<i>Phyllodoce empetriformis</i> (Smith) D. Don	Ranked G4S1S2 by AKNHP, northwestern North American distribution Four Winds Mt. 10078 Flower Mt., upper Porcupine Cr. 10110	Pink Mountain Heather
<i>Vaccinium ovalifolium</i> Smith	Chilkat R. headwaters, 5 km SE of Klukwah Mt. 9522 Chilkoot Lake and lower Chilkoot R. valley 9621	Early Blueberry
<i>Vaccinium uliginosum</i> L.	upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9773 upper Norse R. 9966	Alpine Blueberry
<i>Vaccinium vitis-idaea</i> L.	upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9779	Lowbush Cranberry
Fabaceae (Pea Family)		
<i>Astragalus alpinus</i> L.	Takhin Ridge, W end, upper Takhin R. valley 9568	Alpine Milk Vetch
<i>Hedysarum alpinum</i> L.	Takhin Ridge, W end, upper Takhin R. valley 9543	Eskimo Potato
<i>Hedysarum mackenzii</i> Richardson	Takhin Ridge, W end, upper Takhin R. valley 9551	Boreal Sweet-vetch
<i>Lathyrus maritimus</i> L.	Haines airport, 6 km WNW of town 9894 Katzehin R. delta 10042	Beach Pea
<i>Lupinus nootkatensis</i> Donn	upper Chilkoot R. valley 9496	Nootka Lupine
<i>Oxytropis campestris</i> (L.) DC. subsp. <i>gracilis</i> (Nelson) Hultén	Takhin Ridge, W end, upper Takhin R. valley 9762 upper Takhin R. valley 9855	Locoweed
<i>Oxytropis jordalii</i> A.E. Porsild = <i>O. campestris</i> (L.) DC. ssp. <i>jordalii</i> (A.E. Porsild) Hultén	Takhin Ridge, W end, upper Takhin R. valley 9569	
<i>Trifolium hybridum</i> L.	Haines airport, 6 km WNW of town 9900	Clover
<i>Trifolium repens</i> L.	Haines airport, 6 km WNW of town 9909	White Clover

Gentianaceae (Gentian Family)

- Fauria crista-gallii* (Menzies) Makino
Burro Cr., above Taiya Inlet 9956
Deer Cabbage
- Gentiana douglasiana* Bong.
Chilkoot Lake and lower Chilkoot R. valley 9977
Swamp Gentian
- Gentiana glauca* Pallas
upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9787
Mt. Raymond 10086
Khehini R. valley, Little Salmon R. vic. 10105
Glaucous Gentian
- Gentianella amarella* (L.) Börner subsp. *acuta* (Michaux) J. M. Gillett
= *Gentiana amarella* (L.) ssp. *acuta* (Michaux) Hultén
Mt. Kashagnak 10173
Northern Gentian
- Gentianella propinqua* (Richardson) J. M. Gillett
= *Gentiana propinqua* Richardson
Takhin Ridge, W end, upper Takhin R. valley 9689
- Lomatogonium rotatum* (L.) E. Fries
Haines, Mud Bay Road S of town 10045
Star Gentian

Geraniaceae (Geranium Family)

- Geranium erianthum* DC.
Takhin Ridge, W end, upper Takhin R. valley 9553
Crane's Bill

Grossulariaceae (Gooseberry Family)

- Ribes lacustre* (Pers.) Poiret
Chilkoot Lake and lower Chilkoot R. valley 9594
Takhin Ridge, W end, upper Takhin R. valley 9714
Bristly Black Current
- Ribes laxiflorum* Pursh
upper Chilkoot R. valley 9501
Trailing Black Current
- Ribes triste* Pallas
Takhin R. valley 9833
Northern Red Current

Haloragaceae (Water Milfoil Family)

- Hippuris montana* Ledeb.
upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9770
- Hippuris vulgaris* L.
Haines airport, 6 km WNW of town 9907
Mare's Tail
- Myriophyllum exalbescens* Fernald
= *M. spicatum* L.
Haines airport, 6 km WNW of town 9892

Hydrophyllaceae (Waterleaf Family)

- Romanzoffia sitchensis* Bong.
Chilkoot Lake and lower Chilkoot R. valley 9636

Hypolepidaceae (Bracken Family)

- Pteridium aquilinum* L.
upper Takhin R. valley 9875
Bracken

Iridaceae (Iris Family)

- Iris setosa* Pallas
Haines airport, 6 km WNW of town 9908
Wild Iris

Juncaceae (Rush Family)

- Juncus alpinus* Vill.
Takhin R. valley 9827
Khehini R. valley, vic. mouth of Herman Cr. 9983
Khehini R. valley, 1.5 km above Herman Cr. 10150
- Juncus arcticus* Willd. subsp. *sitchensis* Engelm.
upper Chilkoot R. valley 9517
- Juncus bufonius* L.
Chilkoot Lake and lower Chilkoot R. valley 9604
- Juncus castaneus* Smith
Khehini R. valley, vic. mouth of Herman Cr. 9986
- Juncus drummondii* E. Meyer
Takhin Ridge, W end, upper Takhin R. valley 9687
Flower Mt., upper Porcupine Cr. 10144
- Juncus mertensianus* Bong.
upper Chilkoot R. valley 9503
upper Norse R. 9961
Mt. Raymond 10092
- Luzula arcuata* (Wahlenb.) Sw. subsp. *unalaschcensis* (Buchenau) Hultén
upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9813
Chestnut Rush

- Luzula parviflora* (Ehrh.) Desv.
Chilkoot Lake and lower Chilkoot R. valley 9602
Four Winds Mt. 10082
Flower Mt., upper Porcupine Cr. 10143
- Luzula spicata* (L.) DC. Spiked Woodrush
Takhin Ridge, W end, upper Takhin R. valley 9735
upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9814
- Luzula wahlenbergii* Rupr.
Tohitkah Mt. 10168

Juncaginaceae (Arrowgrass Family)

- Triglochin maritima* L. Sea Arrowgrass
Haines airport, 6 km WNW of town 9887
Haines, Mud Bay Road S of town 10049
- Triglochin palustre* L. Marsh Arrowgrass
Haines airport, 6 km WNW of town 9893

Lamiaceae (Mint Family)

- Galeopsis tetrahit* L. ssp. *bifida* (Boenn.) Lej. & Court. Hemp Nettle
= *G. bifida* Boenn.
Haines, Mud Bay Road S of town 9940, 10053
- Prunella vulgaris* L. Self-heal
Takhin Ridge, W end, upper Takhin R. valley 9673

Liliaceae (Lily Family)

- Fritillaria camschatcensis* (L.) Ker-Gawler Chocolate Lily
Takhin Ridge, W end, upper Takhin R. valley 9667
- Lloydia serotina* (L.) Rchb. Alp Lily
Takhin Ridge, W end, upper Takhin R. valley 9555
- Maianthemum dilatatum* (Howell) Nelson & J. F. Macbr. False Lily of the Valley
Mt. Ripinski trail, Mile 7 Haines Hwy. 9988
- Streptopus amplexifolius* (L.) DC. Twisted Staulk
Chilkoot Lake and lower Chilkoot R. valley 9615
upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9807
Mt. Raymond 10095
- Tofieldia pusilla* (Michaux) Pers. False Hellebore
Takhin Ridge, W end, upper Takhin R. valley 9686
- Veratrum viride* Aiton var. *eschscholtzii* (A. Gray) Breitung
Takhin Ridge, W end, upper Takhin R. valley 9758
upper Takhin R. valley 9879
Mt. Raymond 10096
- Zygadenus elegans* Pursh Death Camus
Takhin Ridge, W end, upper Takhin R. valley 9531

Lycopodiaceae (Clubmoss Family)

- Diphasiastrum alpinum* (L.) Holub Alpine Clubmoss
= *Lycopodium alpinum* L.
Takhin Ridge, W end, upper Takhin R. valley 9703
Khehini R. valley, Little Salmon R. vic. 10104
- Diphasiastrum complanatum* (L.) Holub Ground Cedar
= *Lycopodium complanatum* L.
Chilkoot Lake and lower Chilkoot R. valley 9607
- Huperzia selago* (L.) C. Martius Mountain Clubmoss
= *Lycopodium selago* L.
Chilkat R. headwaters, 5 km SE of Klukwah Mt. 9527
Flower Mt., upper Porcupine Cr. 10120
- Lycopodium annotinum* L. Stiff Clubmoss
Takhin Ridge, W end, upper Takhin R. valley 9678
- Lycopodium clavatum* L. Common Clubmoss
Chilkoot Lake and lower Chilkoot R. valley 9620
Flower Mt., upper Porcupine Cr. 10119

Myricaceae (Wax Myrtle Family)

- Myrica gale* L. Sweet Gale
Haines airport, 6 km WNW of town 9901
Haines, Mud Bay Road S of town 10046

Nymphaeaceae (Water Lily Family)

- Nuphar polysepalum* Engelm. Yellow Water-lily
Haines airport, 6 km WNW of town 9931
Chilkoot Lake and lower Chilkoot R. valley 9978

Onagraceae (Evening Primrose Family)

- Circaea alpina* L.
Chilkoot Lake and lower Chilkoot R. valley 9648
Enchanter's Night Shade
- Epilobium anagallidifolium* Lam.
upper Chilkoot R. valley 9497
Flower Mt., upper Porcupine Cr. 10133
- Epilobium ciliatum* Raf. subsp. *glandulosum* (Lehm.) Hoch & Raven
= *E. glandulosum* Lehm.
Chilkoot Lake and lower Chilkoot R. valley 9666
Haines, Mud Bay Road S of town 10001
- Epilobium hornemannii* Rchb. subsp. *hornemannii*
upper Chilkoot R. valley 9515
Takhin Ridge, W end, upper Takhin R. valley 9536, 9723
- Epilobium lactiflorum* Hausskn.
Chilkoot Lake and lower Chilkoot R. valley 9664
Takhin Ridge, W end, upper Takhin R. valley 9723
White-flowered Willowherb
- Epilobium latifolium* L.
upper Takhin R. valley 9853
Dwarf Fireweed
- Epilobium leptocarpum* Hausskn.
Klehini R. valley, 1.5 km above Herman Cr. 10061

Ophioglossaceae (Adder's Tongue Family)

- Botrychium lanceolatum* (Gmelin) Ångstr.
Takhin Ridge, W end, upper Takhin R. valley 9711
upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9781
- Botrychium lunaria* (L.) Sw.
Takhin Ridge, W end, upper Takhin R. valley 9571, 9722
Four Winds Mt. 10074
Common Moonwort
- Botrychium pinnatum* H. St. John
= *B. boreale* sensu Hultén
Takhin Ridge, W end, upper Takhin R. valley 9571, 9722
Four Winds Mt. 10075

Orchidaceae (Orchid Family)

- Coeloglossum viride* (L.) C.Hartm. subsp. *bracteatum* (Muhl.) Hultén
Takhin Ridge, W end, upper Takhin R. valley 9709
Frog Orchis
- Corallorrhiza maculata* Raf. subsp. *mertensiana* (Bong.) Calder & R.L. Taylor
Mt. Ripinski trail, Mile 7 Haines Hwy. 9993
Coralroot
- Cypripedium montanum* Douglas
Ranked G4G5S1 by AKNHP, endemic to northwestern North America
Takhin Ridge, W end, upper Takhin R. valley 9668
Lady's Slipper
- Goodyera oblongifolia* Raf.
Takhin R. valley 9843
Rattlesnake Plantain
- Listera cordata* (L.) R. Br.
Takhin Ridge, W end, upper Takhin R. valley 9676
upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9796
Heart-leaved Twyblade
- Platanthera hyperborea* (L.) Lindley s. lat.
Takhin R. valley 9825
Mt. Raymond 10099
Northern Bog Orchid
- Platanthera hyperborea* (L.) Lindley var. *hyperborea*
Klehini R. valley, vic. mouth of Herman Cr. 9984, 10063
- Platanthera stricta* Lindley
= *P. saccata* (Greene) Hultén
upper Chilkoot R. valley 9495
upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9816
- Platanthera unalascensis* (Sprengel) Kurtz
= *Piperia unalascensis* (Sprengel) Rydberg
Ranked G5S2 by AKNHP, boreal North American distribution
Takhin Ridge, W end, upper Takhin R. valley 9710
Takhin R. valley 9848
- Spiranthes romanzoffiana* Cham.
Haines airport, 6 km WNW of town 9883
Ladies' Tresses

Orobanchaceae (Broomrape Family)

- Boschniakia rossica* (Cham. & Schldl.) B. Fedtsch.
Takhin R. valley 9847
Broomrape

Pinaceae (Pine Family)

- Picea sitchensis* (Bong.) Carrière
upper Takhin R. valley 9860
Sitka Spruce
- Pinus contorta* Douglas ex Loudon subsp. *contorta*
Katzehin R. delta 10039
Lodgepole Pine
- Tsuga heterophylla* (Raf.) Sarg.
upper Takhin R. valley 9865
Western Hemlock
- Tsuga mertensiana* (Bong.) Sarg.
Takhin Ridge, W end, upper Takhin R. valley 9707
Burro Cr., above Taiya Inlet 9958
Mountain Hemlock

Plantaginaceae (Plantain Family)

- Plantago macrocarpa* Cham. & Schldl.
Haines, Mud Bay Road S of town 10003
- Plantago major* L.
Chilkoot Lake and lower Chilkoot R. valley 9609
- Plantago maritima* L.
Katzehin R. delta 10029
- Seaside Plantain

Poaceae (Grass Family)

- Agrostis alaskana* Hultén
upper Chilkoot R. valley 9514
Chilkoot Lake and lower Chilkoot R. valley 9650
- Agrostis exarata* Trin.
Chilkoot Lake and lower Chilkoot R. valley 9641
Klehini R. valley, 1.5 km above Herman Cr. 10160
- Agrostis mertensii* Trin.
= *A. borealis* Hartm.
Mt. Ripinski trail, Mile 7 Haines Hwy. 9994
Khehini R. valley, Little Salmon R. vic. 10103
- Beckmannia erucaeformis* (L.) Host
Haines airport, 6 km WNW of town 9906
- Bromus sitchensis* Trin.
Takhin Ridge, W end, upper Takhin R. valley 9681
- Calamagrostis canadensis* (Michaux) P. Beauv.
Chilkoot Lake and lower Chilkoot R. valley 9976
Flower Mt., upper Porcupine Cr. 10136
- Calamagrostis inexpansa* A. Gray
Haines airport, 6 km WNW of town 9924
- Calamagrostis lapponica* (Wahlenb.) Hartman F.
upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9821
Takhin R. valley 10058
- Calamagrostis purpurascens* R. Br.
Takhin Ridge, W end, upper Takhin R. valley 9750
- Cinna latifolia* (Trevir.) Griseb.
Klehini R. valley, 1.5 km above Herman Cr. 10155
- Deschampsia cespitosa* (L.) P. Beauv.
Chilkoot Lake and lower Chilkoot R. valley 9618
- Elymus glaucus* Buckley
Takhin R. valley 10057
- Elymus subsecundus* (Link) A. Löve & D. Löve
= *Agropyron subsecundum* (Link) Hitchc.
Chilkoot Lake and lower Chilkoot R. valley 9631
upper Takhin R. valley 9859
- Elymus trachycaulus* (Link) Gould ex Shinners s. lat.
= *Agropyron violaceum* (Hornem.) Lange
Takhin Ridge, W end, upper Takhin R. valley 9742C
- Elymus trachycaulus* (Link) Gould ex Shinners subsp. *andinus* (Scribn. & Smith) A. Löve & D. Löve
= *Agropyron violaceum* (Hornem.) Lange ssp. *andinum* (Scribn. & Smith) Melderis
Takhin Ridge, W end, upper Takhin R. valley 9742B
Takhin R. valley 9842
- Elymus trachycaulus* (Link) Gould ex Shinners subsp. *violaceus* (Hornem.) A. Löve & D. Löve
= *Agropyron violaceum* (Hornem.) Lange ssp. *violaceum*
Takhin Ridge, W end, upper Takhin R. valley 9742A
Takhin R. valley 9841
- Festuca altaica* Trin.
Takhin Ridge, W end, upper Takhin R. valley 9691
Flower Mt., upper Porcupine Cr. 10140
- Festuca brachyphylla* Schultes & Schultes F.
Takhin Ridge, W end, upper Takhin R. valley 9754, 9756
upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9783
- Festuca occidentalis* Hook.
Second record for Alaska, northwestern North American distribution, will be ranked by AKNHP
Takhin R. valley 9826, 10059
- Festuca rubra* L.
Katzehin R. delta 10015
- Glyceria maxima* (Hartman F.) O. Holmb. subsp. *grandis* (S. Watson) Hultén
downtown Haines 10199
- Glyceria pauciflora* C. Presl
Chilkoot Lake and lower Chilkoot R. valley 9643
- Hierochloa alpina* (Sw.) Roemer & Schultes
Takhin Ridge, W end, upper Takhin R. valley 9563
- Hierochloa odorata* (L.) P. Beauv.
Haines airport, 6 km WNW of town 9889
Mt. Raymond 10094
- Hordeum brachyantherum* Nevski
Chilkoot Lake and lower Chilkoot R. valley 9630
- Hordeum jubatum* L.
Haines airport, 6 km WNW of town 9888
- Sitka Brome
Bluejoint
Purple Reedgrass
Nodding Wood Reed
Hairgrass
Western Wild Rye
Slender Wheatgrass
Fescue
Red Fescue
Mannagrass
Alpine Holy Grass
Sweet Vanilla Grass
Meadow Barley
Foxtail

- Leymus mollis* (Trin.) Pilger
= *Elymus arenarius* L. ssp. *mollis* (Trin.) Hultén
Haines airport, 6 km WNW of town 9920
- Phalaris arundinacea* L.
Ranked G5S3 by AKNHP, cosmopolitan distribution, rare in Alaska
Haines airport, 6 km WNW of town 9926, 10027
- Phleum commutatum* Gaudin var. *americanum* (Fourn.) Hultén
Takhin Ridge, W end, upper Takhin R. valley 9565, 9679
Mt. Raymond 10183
- Phleum pratense* L.
Haines airport, 6 km WNW of town 9921
- Poa alpina* L.
upper Chilkoot R. valley 9512
Takhin Ridge, W end, upper Takhin R. valley 9535
Four Winds Mt. 10069
- Poa annua* L.
Chilkoot Lake and lower Chilkoot R. valley 9657
- Poa arctica* R. Br.
upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9793, 9804
Mt. Raymond 10182
- Poa compressa* L.
Haines airport, 6 km WNW of town 9896, 10030
- Poa eminens* J.Presl
Haines, Mud Bay Road S of town 10005
- Poa glauca* M. Vahl
Takhin Ridge, W end, upper Takhin R. valley 9761
Takhin R. valley 10055
- Poa palustris* L.
Takhin R. valley 9835
Haines, Mud Bay Road S of town 9953
Katzehin R. delta 10041
Klehini R. valley, 1.5 km above Herman Cr. 10157
- Poa paucispicula* Scribn. & Merr.
upper Chilkoot R. valley 9513
upper Takhin R. valley 9870
- Poa pratensis* L. ssp. *alpigena* (Blytt) Hiit.
upper Takhin R. valley 9876
- Poa stenantha* Trin. var. *stenantha*
Takhin Ridge, W end, upper Takhin R. valley 9682
- Podagrostis aequivalvis* (Trin.) Scribn. & Merr.
Chilkoot Lake and lower Chilkoot R. valley 9610
- Puccinellia nutkaensis* (C.Presl) Fernald & Weath.
Haines, Mud Bay Road S of town 9955, 10002, 10051
Katzehin R. delta 10016
- Puccinellia phryganodes* (Trin.) Scribn. & Merr.
Haines, Mud Bay Road S of town 9954
- Trisetum cernuum* Trin.
Chilkoot Lake and lower Chilkoot R. valley 9597
- Trisetum spicatum* (L.) K. Richter subsp. *alaskanum* (Nash) Hultén
Takhin Ridge, W end, upper Takhin R. valley 9728
- Trisetum spicatum* (L.) K. Richter
Mt. Kashagnak 10175
- Vahlodea atropurpurea* (Wahlenb.) Fries
upper Chilkoot R. valley 9516
Flower Mt., upper Porcupine Cr. 10138
- Polemoniaceae (Phlox Family)**
- Polemonium boreale* J.E. Adams
Takhin Ridge, W end, upper Takhin R. valley 9566
- Polemonium pulcherrimum* Hook.
Takhin Ridge, W end, upper Takhin R. valley 9747
- Polygonaceae (Buckwheat Family)**
- Bistorta vivipara* (L.) Gray
= *Polygonum viviparum* L.
upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9811
Mt. Raymond 10089
- Polygonum aviculare* L.
Haines airport, 6 km WNW of town 9903
- Polygonum convolvulus* L.
Haines, Mud Bay Road S of town 10050
- Polygonum prolificum* (Small) Robinson
Mt. Ripinski trail, Mile 7 Haines Hwy. 9989
- Rumex acetosa* L.
Haines, Mud Bay Road S of town 10047
- Rumex acetosella* L.
Haines, Mud Bay Road S of town 9942

Lyme Grass

Reed Canary Grass

Timothy

Alpine Bluegrass

Arctic Bluegrass

Kentucky Bluegrass

Alkali Grass

Siberian False Oat

Mountain Hairgrass

Boreal Jacob's Ladder

Pretty Jacob's Ladder

Alpine Bistort

Black Bindweed

Sheep Sorrel

<i>Rumex crispus</i> L. Haines airport, 6 km WNW of town 9927	Curled Dock
<i>Rumex fenestratus</i> E. Greene Chilkoot Lake and lower Chilkoot R. valley 9596	
<i>Rumex transitorius</i> K. H. Rech. Chilkoot Lake and lower Chilkoot R. valley 9598 Haines, Mud Bay Road S of town 9936	
Polypodiaceae (Licorice Fern Family)	
<i>Polypodium glycyrrhiza</i> D.C. Eaton = <i>P. vulgare</i> L. ssp. <i>occidentale</i> (Hook.) Hultén Haines, Mud Bay Road S of town 9935	Licorice Fern
Portulacaceae (Purslane Family)	
<i>Claytonia sarmentosa</i> C. Meyer Mt. Raymond 10185	Alaska Spring Beauty
<i>Claytonia sibirica</i> L. upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9799	Rainflower
<i>Montia fontana</i> L. Chilkoot Lake and lower Chilkoot R. valley 9600	Water Blinks
Potamogetonaceae (Pondweed Family)	
<i>Potamogeton alpinus</i> Balb. Haines airport, 6 km WNW of town 9890	Northern Pondweed
<i>Potamogeton pectinatus</i> L. Haines, Mud Bay Road S of town 9968	
Primulaceae (Primrose Family)	
<i>Dodecatheon pulchellum</i> (Raf.) Merr. Takhin Ridge, W end, upper Takhin R. valley 9675 Haines, Mud Bay Road S of town 10048	Shooting Star
<i>Glaux maritima</i> L. Haines, Mud Bay Road S of town 9941	Sea Milkwort
<i>Lysimachia thyrsoiflora</i> L. Haines airport, 6 km WNW of town 9897	Tufted Loosetrife
<i>Primula egalikensis</i> Wormsk. Haines airport, 6 km WNW of town 9886	Greenland Primrose
<i>Trientalis europaea</i> L. subsp. <i>arctica</i> (Fischer) Hultén upper Chilkoot R. valley 9493 Katzehin R. delta 10025	Star Flower
Pyrolaceae (Wintergreen Family)	
<i>Moneses uniflora</i> (L.) A. Gray Chilkoot Lake and lower Chilkoot R. valley 9646	Shy Maiden
<i>Orthilia secunda</i> (L.) House subsp. <i>obtusata</i> (Turcz.) Böcher = <i>Pyrola secunda</i> L. ssp. <i>obtusata</i> (Turcz.) Hultén Chilkoot Lake and lower Chilkoot R. valley 9647	One-sided Wintergreen
<i>Pyrola asarifolia</i> Michaux Chilkoot Lake and lower Chilkoot R. valley 9653 Tohitkah Mt. 10190	Pink Wintergreen
<i>Pyrola chlorantha</i> Sw. Chilkoot Lake and lower Chilkoot R. valley 9654	Green Wintergreen
<i>Pyrola minor</i> L. upper Chilkoot R. valley 9511 Mt. Raymond 10090	Lesser Wintergreen
Ranunculaceae (Buttercup Family)	
<i>Aconitum delphinifolium</i> DC. Takhin Ridge, W end, upper Takhin R. valley 9559, 9753 Four Winds Mt. 10066	Monks Hood
<i>Actaea rubra</i> (Aiton) Willd. Takhin Ridge, W end, upper Takhin R. valley 9669 Mt. Ripinski trail, Mile 7 Haines Hwy. 9998	Bane Berry
<i>Anemone multifida</i> Poir. Takhin Ridge, W end, upper Takhin R. valley 9583, 9746	
<i>Anemone parviflora</i> Michaux Takhin Ridge, W end, upper Takhin R. valley 9542	Windflower
<i>Anemone richardsonii</i> Hook. Chilkat R. headwaters, 5 km SE of Klukwah Mt. 9519 upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9801	Yellow Anemone
<i>Aquilegia formosa</i> Fischer Takhin Ridge, W end, upper Takhin R. valley 9529	Western Columbine
<i>Aquilegia formosa</i> Fischer Rare yellow-flowered form Takhin Ridge, W end, upper Takhin R. valley 9672	

<i>Caltha leptosepala</i> DC. Chilkat R. headwaters, 5 km SE of Klukwah Mt. 9523	Mountain Marsh Marigold
<i>Caltha palustris</i> L. Chilkoot Lake and lower Chilkoot R. valley 9605	Marsh Marigold
<i>Coptis trifolia</i> (L.) Salisb. Chilkoot Lake and lower Chilkoot R. valley 10007	Goldthread
<i>Delphinium glaucum</i> S. Watson Takhin Ridge, W end, upper Takhin R. valley 9674	Larkspur
<i>Ranunculus aquatilis</i> L. = <i>R. trichophyllus</i> Chaix. Haines airport, 6 km WNW of town 9891	White Water Crowfoot
<i>Ranunculus bongardii</i> E. Greene Chilkoot Lake and lower Chilkoot R. valley 9665	
<i>Ranunculus cooleyae</i> Vasey & Rose Chilkat R. headwaters, 5 km SE of Klukwah Mt. 9525 upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9792	
<i>Ranunculus cymbalaria</i> Pursh Haines, Mud Bay Road S of town 9937	
<i>Ranunculus eschscholtzii</i> Schlechter Chilkat R. headwaters, 5 km SE of Klukwah Mt. 9520 Takhin Ridge, W end, upper Takhin R. valley 9534	
<i>Ranunculus occidentalis</i> Nutt. var. <i>brevistylis</i> E. Greene Takhin Ridge, W end, upper Takhin R. valley 9544 Flower Mt., upper Porcupine Cr. 10111	Western Buttercup
<i>Ranunculus repens</i> L. Chilkoot Lake and lower Chilkoot R. valley 9663 Haines, Mud Bay Road S of town 9952	
<i>Thalictrum alpinum</i> L. Mt. Raymond 10085	Alpine Meadow Rue
Rosaceae (Rose Family)	
<i>Amelanchier alnifolia</i> (Nutt.) Nutt. subsp. <i>florida</i> (Lindley) Hultén Takhin Ridge, W end, upper Takhin R. valley 9671	Serviceberry
<i>Arunco sylvester</i> Kostel. Chilkoot Lake and lower Chilkoot R. valley 9611	Goatsbeard
<i>Comarum palustre</i> L. = <i>Potentilla palustre</i> (L.) Scop. Chilkoot Lake and lower Chilkoot R. valley 9606	Marsh Fivefinger
<i>Dryas drummondii</i> Richardson Takhin Ridge, W end, upper Takhin R. valley 9717 upper Takhin R. valley 9852	
<i>Dryas integrifolia</i> M. Vahl Takhin Ridge, W end, upper Takhin R. valley 9582	
<i>Dryas octopetala</i> L. Tohitkah Mt. 10195	Mountain Avens
<i>Geum calthifolium</i> Menzies upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9790	
<i>Geum macrophyllum</i> Willd. ssp. <i>macrophyllum</i> Haines, Mud Bay Road S of town 10054	
<i>Geum perincisum</i> Rydb. = <i>G. macrophyllum</i> Willd. ssp. <i>perincisum</i> (Rydb.) Hultén Chilkoot Lake and lower Chilkoot R. valley 9623	
<i>Luetkea pectinata</i> (Pursh) Kuntze upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9771 upper Norse R. 9967	Partridge-foot
<i>Malus fusca</i> (Raf.) C. Schneider Chilkoot Lake and lower Chilkoot R. valley 9969	Oregon Crab Apple
<i>Potentilla arguta</i> Pursh Mt. Ripinski trail, Mile 7 Haines Hwy. 9987	
<i>Potentilla diversifolia</i> Lehm. Takhin Ridge, W end, upper Takhin R. valley 9547	Mountain-meadow Cinquefoil
<i>Potentilla egedii</i> Wormsk. Haines, Mud Bay Road S of town 9946 Katzehin R. delta 10023	Silverweed
<i>Potentilla gracilis</i> Douglas Haines, Mud Bay Road S of town 9951	Slender Cinquefoil
<i>Potentilla hookeriana</i> Lehm. Takhin Ridge, W end, upper Takhin R. valley 9560	
<i>Potentilla hyparctica</i> Malte Tohitkah Mt. 10195	
<i>Potentilla nivea</i> L. Takhin Ridge, W end, upper Takhin R. valley 9744, 9745	
<i>Potentilla uniflora</i> Ledeb. Flower Mt., upper Porcupine Cr. 10123	One-flowered Cinquefoil

- Potentilla villosa* Pallas ex Pursh
Katzehin R. delta 10044
- Rubus chamaemorus* L. Cloudberry
Chilkoot Lake and lower Chilkoot R. valley 9970
- Rubus idaeus* L. Raspberry
Chilkoot Lake and lower Chilkoot R. valley 9637
- Rubus pedatus* Smith
upper Chilkoot R. valley 9509
- Rubus spectabilis* Pursh Salmonberry
Chilkoot Lake and lower Chilkoot R. valley 9633
- Rubus stellatus* Smith
= *R. arcticus* L. ssp. *stellatus* (Sm.) Boiv. emend Hultén
upper Chilkoot R. valley 9494
Flower Mt., upper Porcupine Cr. 10121
- Sanguisorba stipulata* Raf. Burnet
Chilkoot Lake and lower Chilkoot R. valley 9651
Flower Mt., upper Porcupine Cr. 10126
- Sibbaldia procumbens* L.
Takhin Ridge, W end, upper Takhin R. valley 9561
- Sorbus sitchensis* Roemer Mountain Ash
Takhin Ridge, W end, upper Takhin R. valley 9670
upper Takhin R. valley 9867
Khehini R. valley, Little Salmon R. vic. 10100
Mt. Kashagnak 10172
- Spiraea stevenii* (C. Schneider) Rydb. Alaska Spiraea
= *S. beauverdiana* Schneid.
upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9775

Rubiaceae (Madder Family)

- Galium aparine* L.
Katzehin R. delta 10018
- Galium trifidum* L. subsp. *columbianum* (Rydb.) Hultén Small Bedstraw
Chilkoot Lake and lower Chilkoot R. valley 9655
Haines airport, 6 km WNW of town 9913
- Galium triflorum* Michaux Sweet-scented Bedstraw
Chilkoot Lake and lower Chilkoot R. valley 9656
upper Takhin R. valley 9854

Salicaceae (Willow Family)

- Salix alaxensis* (Andersson) Coville var. *longistylis* (Rydb.) C. Schneider Feltleaf Willow
upper Takhin R. valley 9864
Khehini R. valley, 1.5 km above Herman Cr. 10153
- Salix arctica* Pallas Dwarf Arctic Willow
Takhin Ridge, W end, upper Takhin R. valley 9537, 9740
- Salix barclayi* Andersson Barclay's Willow
upper Chilkoot R. valley 9508
Takhin Ridge, W end, upper Takhin R. valley 9538
upper Takhin R. valley 9881
Flower Mt., upper Porcupine Cr. 10118
Tohitkah Mt. 10162
- Salix lucida* Muhl. subsp. *lasiandra* (Benth.) Argus
= *S. lasiandra* Benth.
upper Takhin R. valley 9857
- Salix planifolia* Pursh subsp. *planifolia*
Ranked GSTSS1 by AKNHP, Northern North American distribution to easternmost Alaska.
Haines airport, 6 km WNW of town 9923
- Salix polaris* Wahlenb.
Takhin R. valley 9837
Four Winds Mt. 10072
- Salix reticulata* L. Net-vein Willow
Takhin Ridge, W end, upper Takhin R. valley 9558
- Salix scouleriana* Barratt
Haines airport, 6 km WNW of town 9932
Mt. Kashagnak 10176
- Salix sitchensis* Sanson
upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9784, 9806
- Salix stolonifera* Coville
upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9772
Burro Cr., above Taiya Inlet 9957
Flower Mt., upper Porcupine Cr. 10129
Tohitkah Mt. 10167
Mt. Raymond 10181

Santalaceae (Sandwood Family)

- Geocaulon lividum* (Richardson) Fernald Pumpkin Berry
Chilkoot Lake and lower Chilkoot R. valley 9974

Saxifragaceae (Saxifrage Family)

<i>Leptarrhena pyrolifolia</i> (D. Don) Ser. upper Chilkoot R. valley 9510 Takhin Ridge, W end, upper Takhin R. valley 9690	Leatherleaved Saxifrage
<i>Mitella pentandra</i> Hook. Takhin Ridge, W end, upper Takhin R. valley 9719, 9724 Flower Mt., upper Porcupine Cr. 10109 Mt. Raymond 10184	Bishop's Cap
<i>Parnassia fimbriata</i> König Takhin Ridge, W end, upper Takhin R. valley 9683 Four Winds Mt. 10071 Tohitkah Mt. 10163	Fringed Grass-of-Parnassus
<i>Parnassia kotzebuei</i> Cham. & Schldl. Takhin Ridge, W end, upper Takhin R. valley 9684	
<i>Parnassia palustris</i> L. Takhin R. valley 9831	Grass of Parnassus
<i>Saxifraga adscendens</i> L. ssp. <i>oregonensis</i> (Raf.) Bacigalupi Ranked G5T4T5S2S3 by AKNHP, northwestern and central North American distribution Four Winds Mt. 10067	
<i>Saxifraga bronchialis</i> L. Flower Mt., upper Porcupine Cr. 10128	Spotted Saxifrage
<i>Saxifraga caespitosa</i> L. Klehini R. valley, 1.5 km above Herman Cr. 10062	Tufted Saxifrage
<i>Saxifraga ferruginea</i> Graham Chilkoot Lake and lower Chilkoot R. valley 9617 upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9822 Four Winds Mt. 10077	Coast Saxifrage
<i>Saxifraga lyallii</i> Engl. Takhin Ridge, W end, upper Takhin R. valley 9725 Flower Mt., upper Porcupine Cr. 10149	Red-stemmed Saxifrage
<i>Saxifraga nelsoniana</i> D. Don = <i>S. punctata</i> L. ssp. <i>nelsoniana</i> (D. Don) Hultén upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9818 Tohitkah Mt. 10166	Brook Saxifrage
<i>Saxifraga nivalis</i> L. Takhin Ridge, W end, upper Takhin R. valley 9699	Snow Saxifrage
<i>Saxifraga oppositifolia</i> L. Takhin Ridge, W end, upper Takhin R. valley 9570, 9752	Purple Mountain Saxifrage
<i>Saxifraga rivularis</i> L. var. <i>flexuosa</i> (Sternb.) Engl. & Irmscher Takhin R. valley 9836 Mt. Raymond 10186	
<i>Saxifraga tricuspida</i> Rottb. Takhin Ridge, W end, upper Takhin R. valley 9554	Prickly Saxifrage
<i>Tellima grandiflora</i> (Pursh) Douglas Takhin Ridge, W end, upper Takhin R. valley 9716	Fringe Cups
<i>Tiarella trifoliata</i> L. upper Chilkoot R. valley 9507	Lace Flower
<i>Tiarella unifoliata</i> Hook. upper Chilkoot R. valley 9492 Chilkoot Lake and lower Chilkoot R. valley 9638	Sugar Scoop

Scrophulariaceae (Figwort Family)

<i>Castilleja miniata</i> Douglas Takhin Ridge, W end, upper Takhin R. valley 9737	Red Indian Paintbrush
<i>Castilleja parviflora</i> Bong. Takhin Ridge, W end, upper Takhin R. valley 9704 upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9798 Klehini R. valley, Little Salmon R. vic. 10106 Flower Mt., upper Porcupine Cr. 10127 Mt. Raymond 10187	
<i>Castilleja unalaschcensis</i> (Cham. & Schldl.) Malte Takhin Ridge, W end, upper Takhin R. valley 9546 upper Takhin R. valley 9869 Flower Mt., upper Porcupine Cr. 10113 Mt. Kashagnak 10177	Alaska Yellow Paintbrush
<i>Euphrasia disjuncta</i> Fernald & Wieg. Haines airport, 6 km WNW of town 9928	
<i>Pedicularis capitata</i> J.E. Adams Takhin Ridge, W end, upper Takhin R. valley 9727	Capitate Lousewort
<i>Pedicularis parviflora</i> Smith Haines airport, 6 km WNW of town 9884	
<i>Rhinanthus minor</i> L. Takhin Ridge, W end, upper Takhin R. valley 9688 Katzehin R. delta 10040	Yellow Rattle
<i>Veronica americana</i> Schwein. Chilkoot Lake and lower Chilkoot R. valley 9635	Speedwell

<i>Veronica serpyllifolia</i> L. Chilkoot Lake and lower Chilkoot R. valley 9608	
<i>Veronica wormskjoldii</i> Roemer & Schultes Takhin Ridge, W end, upper Takhin R. valley 9751 Mt. Raymond 10088	Alpine Speedwell
Selaginellaceae (Spikemoss Family)	
<i>Selaginella selaginoides</i> (L.) Link upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9797	Spikemoss
<i>Selaginella sibirica</i> (Milde) Hieron. Takhin Ridge, W end, upper Takhin R. valley 9694	
Sparganiaceae (Burweed Family)	
<i>Sparganium multipedunculatum</i> (Morong) Rydb. Haines airport, 6 km WNW of town 9898	Large Headed Burweed
Thelypteridaceae (Marsh Fern Family)	
<i>Thelypteris phegopteris</i> (L.) Slosson Chilkoot Lake and lower Chilkoot R. valley 9645	
Urticaceae (Nettle Family)	
<i>Urtica dioica</i> L. subsp. <i>gracilis</i> (Aiton) Selander upper Takhin R. valley 9866 Chilkoot Lake and lower Chilkoot R. valley 9980	Stinging Nettles
Valerianaceae (Valerian Family)	
<i>Valeriana sitchensis</i> Bong. Takhin Ridge, W end, upper Takhin R. valley 9557, 9706 Four Winds Mt. 10084	Sitka Valerian
Violaceae (Violet Family)	
<i>Viola adunca</i> Smith Takhin Ridge, W end, upper Takhin R. valley 9578 Mt. Ripinski trail, Mile 7 Haines Hwy. 9997	Early Blue Violet
<i>Viola epipsila</i> Ledeb. subsp. <i>repens</i> (Turcz.) W. Becker upper Chilkoot R. valley 9500 Chilkoot Lake and lower Chilkoot R. valley 9662	Dwarf Marsh Violet
<i>Viola glabella</i> Nutt. upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9815	Yellow Violet
<i>Viola langsдорffii</i> Fischer upper Chilkoot R. valley, 5 km ENE of Klutshah Mt. 9795 Four Winds Mt. 10070	Alaska Violet

APPENDIX B

Vascular Plant Inventory of Selected Sites, Haines and vicinity, southeastern Alaska

Summer 2000

Collection Localities

Major localities surveyed are indicated on USGS topographic maps at a scale of 1:63,360 (1 inch = 1 mile). All localities are in the Skagway Quadrangle. Coordinates were taken from a helicopter GPS (when given to decimal fractions of minutes) or read from topographic maps visually. True north lies at the top of each figure. The general areas visited (enclosed areas) or routes followed (lines) are indicated for most sites. Land management or status varies and is noted. The types of vegetation stands surveyed and dates of visits are given. Those sites visited very briefly, or which are situated along the road system near Haines, but for which no map is shown, are listed at the end of the Appendix.

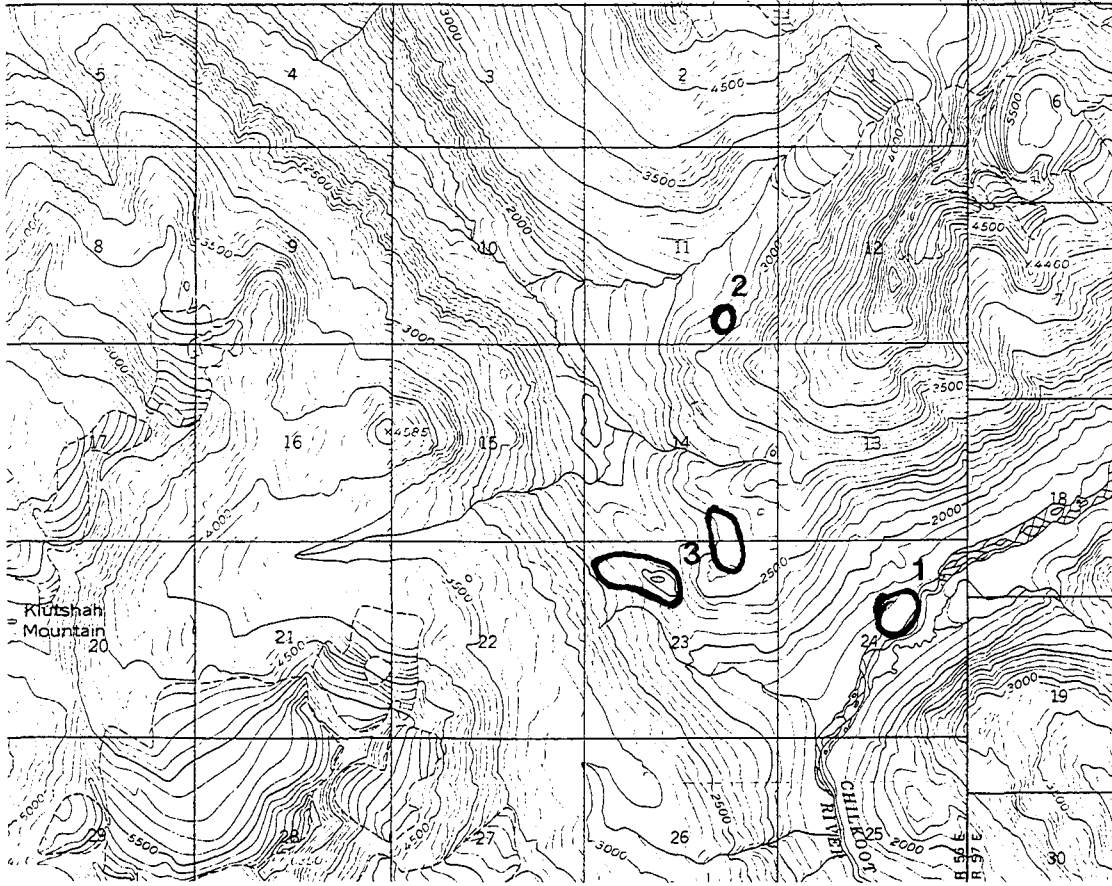


Figure B-1. Skagway Quadrangle (C3). Headwaters of Chilkoot and Chilkat rivers and vicinity of Klutshah Mountain, approximately 36 km NNE of Haines. All sites are on land managed by BLM.

- Site 1. Upper Chilkoot River. 59°31.26'N, 135°48.24'W. 550 msm. Wet sedge meadow, western hemlock forest, cobble floodplain of river. Visited 16 July.
- Site 2. Headwaters of branch of Chilkat River. 59°32.46'N, 135°49.94'W. 910 msm. Steep N-facing boulder slope, heath meadow, streamside. Visited 16 July.
- Site 3. Saddle above upper Chilkoot River. 59°31.30'N, 135°50.70'W. 670-790 msm. Subalpine hemlock forest, heath meadows, wet meadows. Visited 19 July.

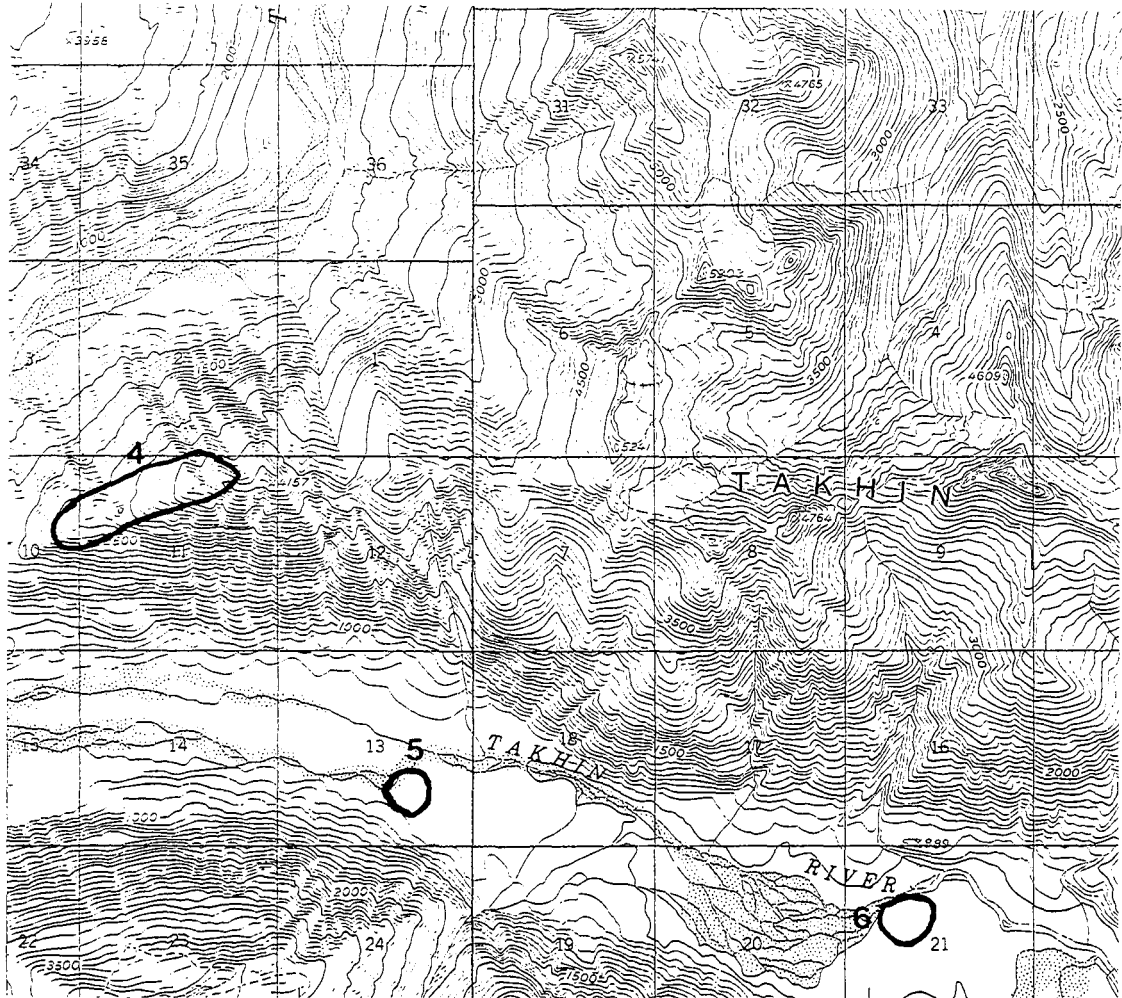


Figure B-2. Skagway Quadrangle (B3). Takhin Ridge and upper Takhin River valley, approximately 34 km W of Haines. All sites are on land managed by BLM except as noted.

- Site 4. Takhin Ridge, west end. 59°17.12'N, 136°06.83'W. 910-1200 msm. Limestone outcrops, screes, forb meadows, dwarf shrub meadows, alder thickets. Visited 16 and 18 July.
- Site 5. Upper Takhin River floodplain. 59°16'N, 136°04'W. 160 msm. Dryas floodplain terrace, tall shrub (alder, willow) thickets, open cottonwood forest, snowmelt seepage at base of mountain. Visited 20 July .
- Site 6. Takhin R. valley, vic. abandoned airstrip, 59°15.24'N, 135°59.83'W. 150 msm. Open cottonwood forest, dryas floodplain terrace, alder thicket. BLM and state patented mining claim (verbal permission granted to C. Parker by J. Smith, July 2000). Visited 20 July and 22 August.

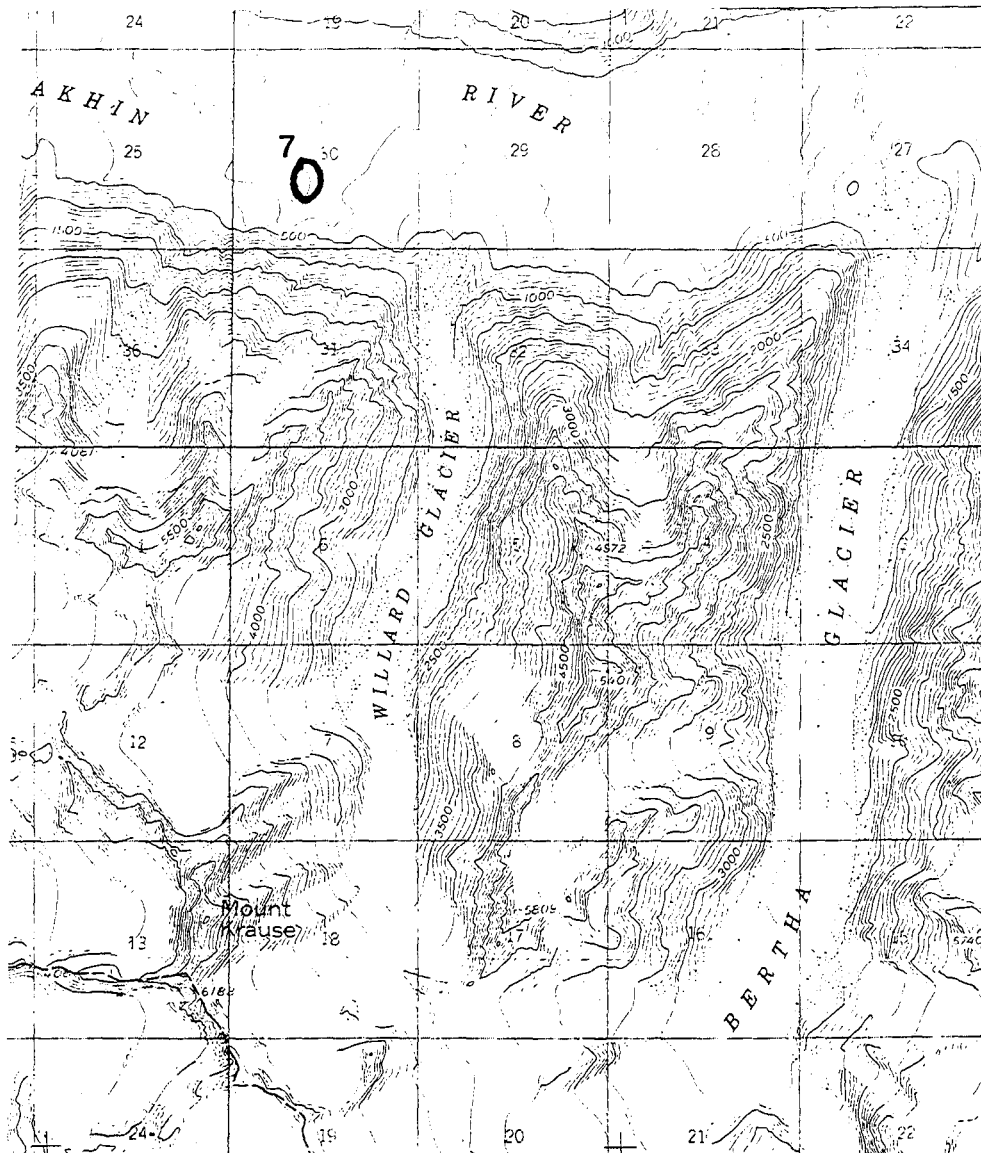


Figure B-3. Skagway Quadrangle (A3). Takhin River valley, approximately 25 km W of Haines. Site is on land managed by BLM. Mt. Krause was named for a German naturalist who collected plants in the Haines area in 1882.

Site 7. South bank of Takhin River valley. $59^{\circ}14.38'N$, $135^{\circ}52.9'W$. 90 msm.
Wet sedge meadows and active river floodplain. Visited 20 July.

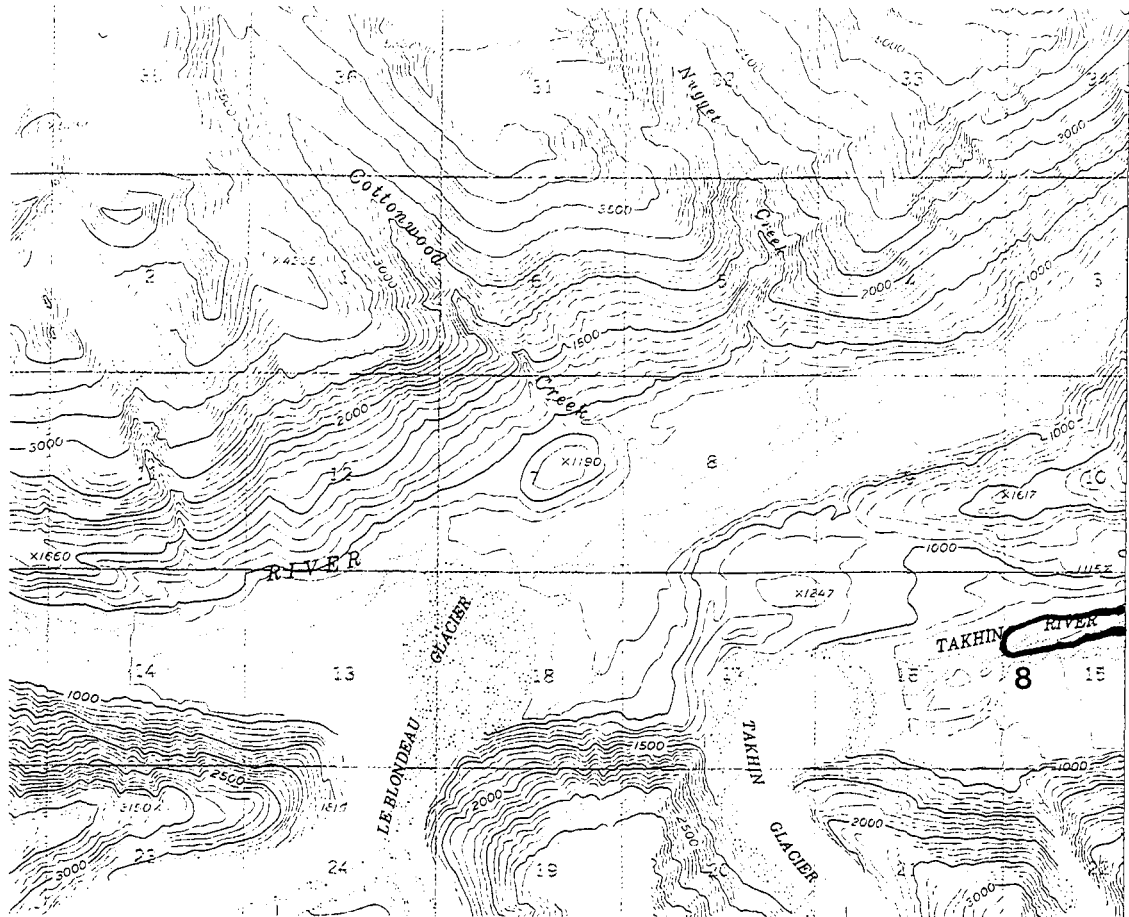


Figure B-4. Skagway Quadrangle (B4). Upper Takhin River valley, approximately 40 km W of Haines. Site on land managed by BLM.

Site 8. Upper Takhin River valley. 59°16'N, 136°08'W. 210 msm. Dryas floodplain terrace, open, flood-disturbed cottonwood forest, tall shrub thickets, herbaceous meadows at base of slope. Visited 20 July.

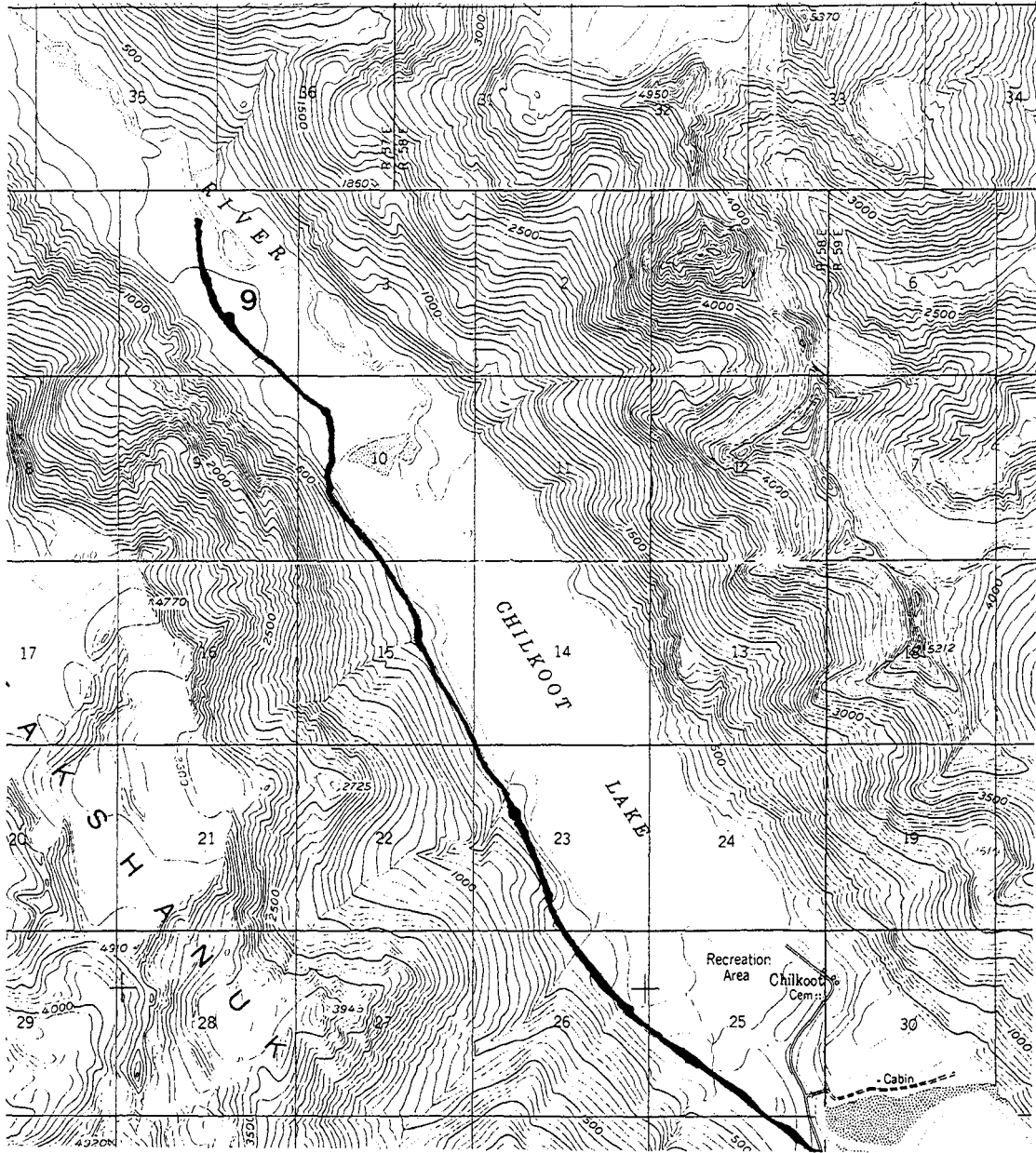


Figure B-5. Skagway Quadrangle (B2). Chilkoot Lake and lower Chilkoot River valley, approximately 20 km N of Haines. Area includes lands managed by BLM, Alaska Chilkat Bald Eagle Preserve, and private individuals (verbal permission to land at Turner inholding given to C. Parker by C. Turner, July 2000).

Landing site (Site 9) is 59°23.20'N, 135°39.23'W. 25 msm. Road was used to access tall shrub thickets, moist meadows, closed Sitka spruce-western hemlock forest, wet moss bogs in forest understory, and all of above disturbed by slides and flooding. Site visited 17 July.

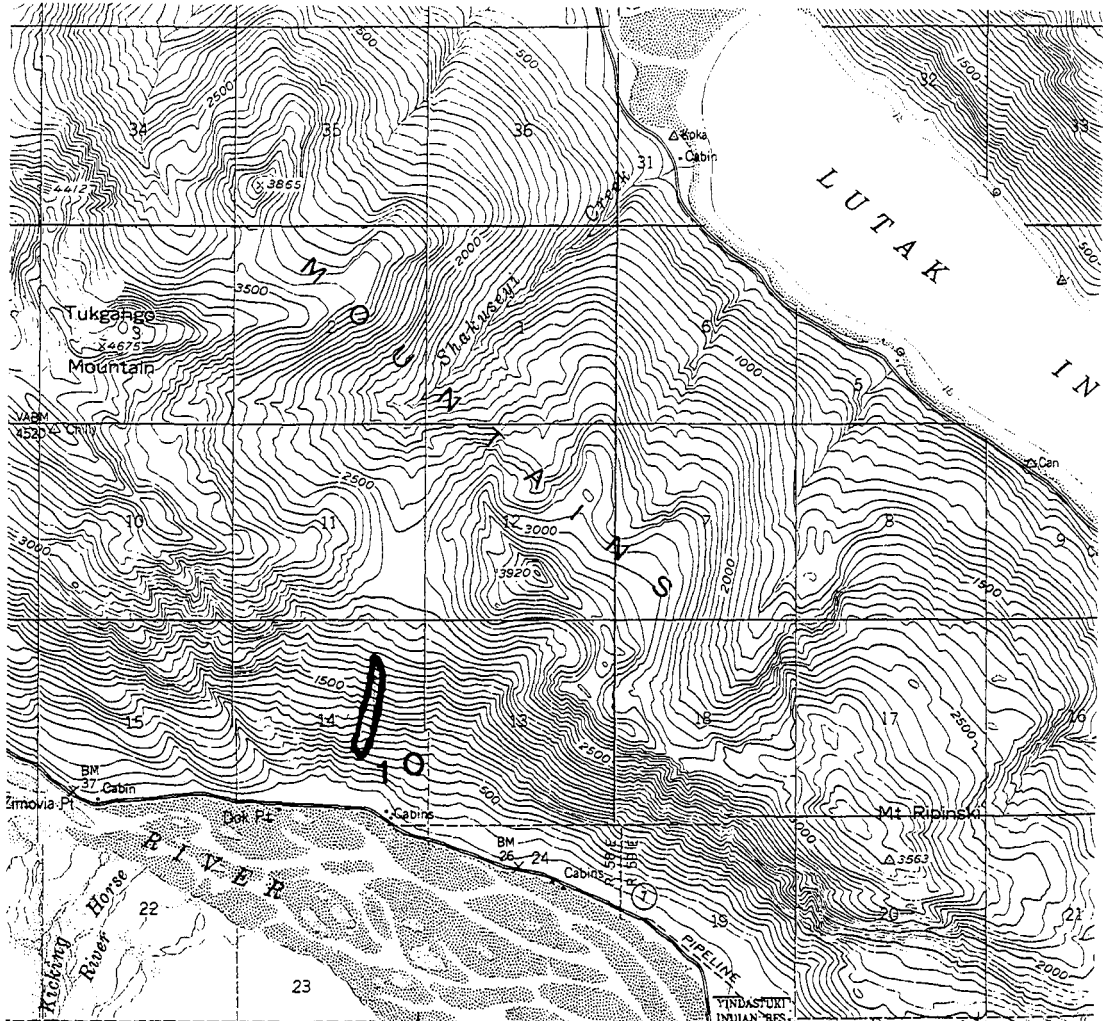


Figure B-6. Skagway Quadrangle (B2). Lower slopes of Mt. Ripinski at Mile 7 Haines Highway. Public trail, land status uncertain.

Site 10. Lower portion of trail up Mt. Ripinski. 59°16'N, 135°36'W. 60-450 msm.
 Open lodge pole pine forest, open paper birch forest, scattered rock outcrops.
 Site visited 23 July.

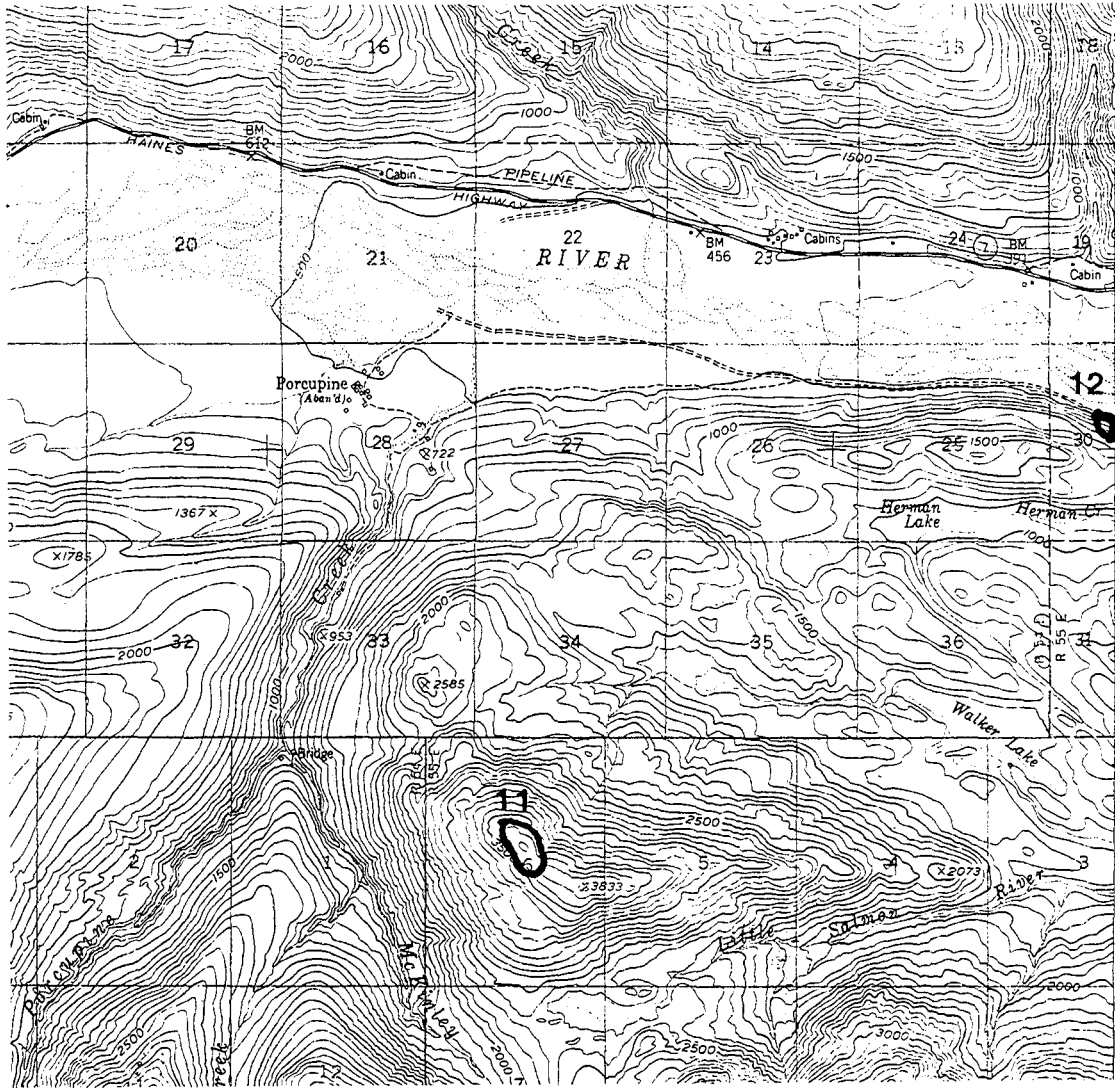


Figure B-7. Skagway Quadrangle (B4). Middle Klehini River valley and Little Salmon River, approximately 43 km NW of Haines. Both sites managed by State of Alaska.

- Site 11. Knoll above headwaters of Little Salmon River. 59°23.24'N, 136°12.98'W. 1145 msm. Subalpine meadows and rocky marble outcrops. Site visited 19 August.
- Site 12. Marble outcrop on S bank of Klehini River floodplain, 1.5 km above mouth of Herman Creek. 59°25.13'N, 136°07.35'W. 90 msm. Outcrop within tall shrub thicket and Sitka spruce-western hemlock forest, wet, impounded lowlands of floodplain. Site visited 20 and 22 August.

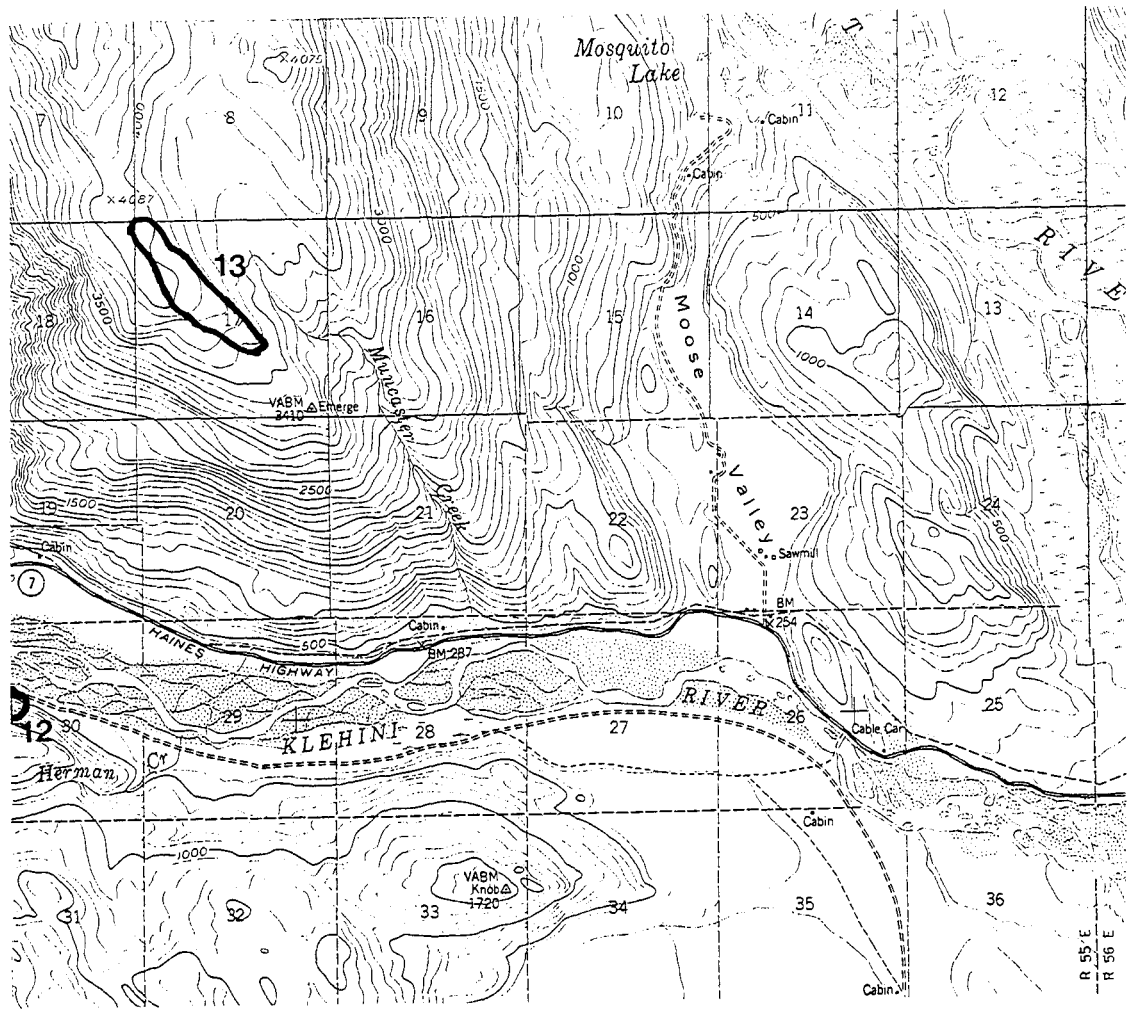


Figure B-8. Skagway Quadrangle (B3). Four Winds Mountain, above Haines Highway and Klehini River, approximately 45 km NW of Haines. Land managed by State of Alaska.

Site 12. Marble outcrop on S bank of Klehini River floodplain, 1.5 km above mouth of Herman Creek. 59°25.13'N, 136°07.35'W. 90 msm. Described in Figure B-7.

Site 13. Four Winds Mountain, ridge trending SE away from summit, 59°26.80'N, 136°05.93'W, 1220 msm. Rocky knolls of sedimentary rock, low alpine heath, mesic meadows, snowmelt patches. Site visited 22 August.

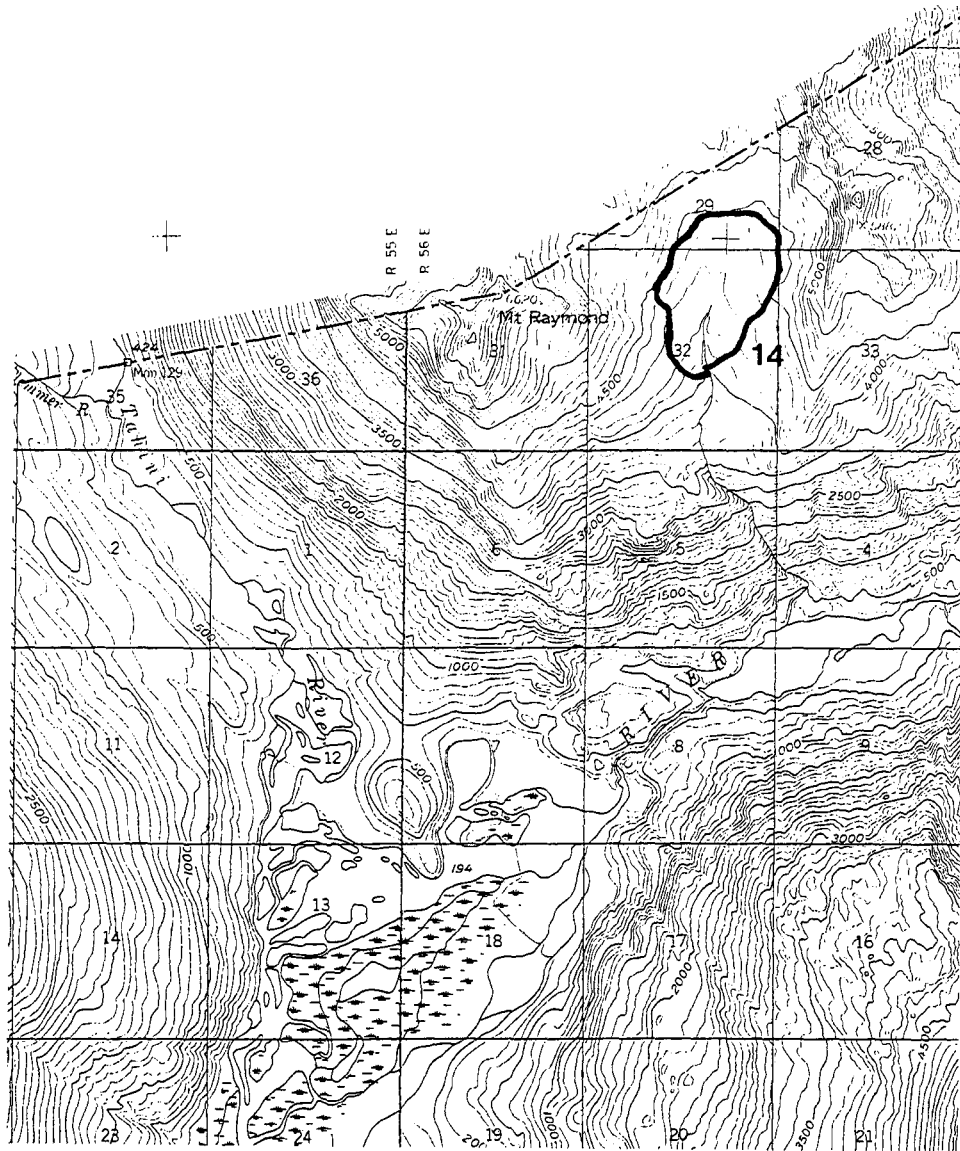


Figure B-9. Skagway Quadrangle (C3). Mt. Raymond, upper Chilkat River valley, approximately 55 km NNW of Haines. Land managed by BLM.

Site 14. Mt. Raymond, large, S-facing cirque below summit, 59°39.50'N, 135°55.23'W. 1220-1370 msm. Dwarf alpine heath, rocky screes, mesic forb meadows. Site visited 24 August.

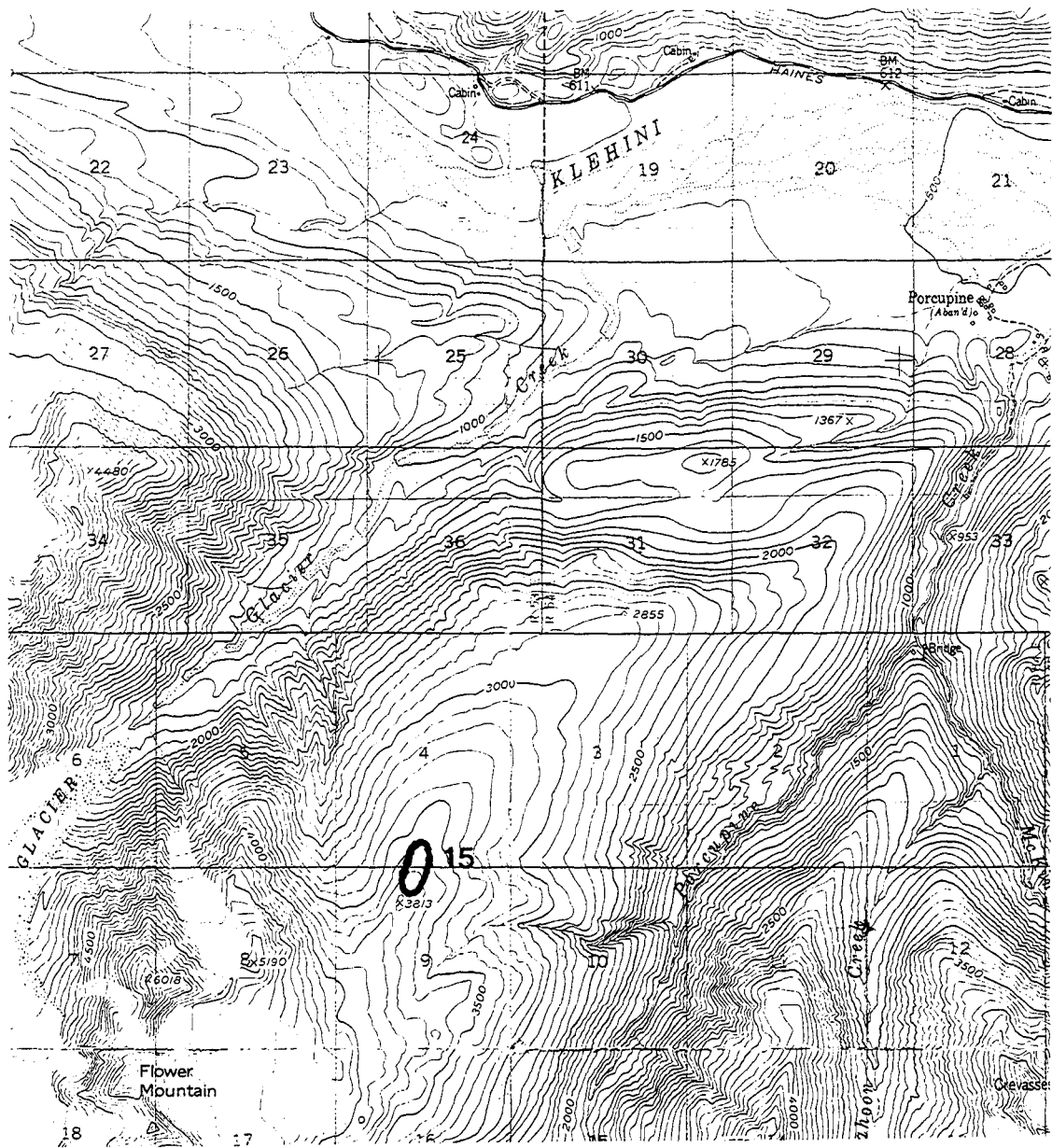


Figure B-10. Skagway Quadrangle (B4). Flower Mountain, Porcupine Creek valley, approximately 50 km WNW of Haines. Land managed by State of Alaska.

Site 15. Flower Mountain, broad NE-trending shoulder below summit, 59°22.88'N, 136°19.48'W. 1160 msl. Rocky, alpine heath, mesic meadows. Site visited 19 August.

Additional low elevation and roadside sites visited during this survey are listed below. Very few collections were taken from these sites with the exception of the immediate area of Haines and the Katzehin River delta.

Skagway Quadrangle (A1)

Katzehin River delta, 59°13'N, 135°20'W. 1-3 msm. N portion of delta. Gravel strand beaches, wet to moist mud flats, graminoid meadows, open lodgepole pine woodlands, Sitka spruce forest margin, clearing opened for airstrip. Visited 21 August. Land managed by U.S. Forest Service, verbal permission for access given to C. Parker by Mary Stensvold, Sitka.

Skagway Quadrangle (A2)

Haines airport, SE end of airport in vicinity of helicopter pad, 59°14.61'N, 135°30.78'W. 9 msm. Disturbed ancient river terrace, open herbaceous vegetation, moist ditches, and tall shrub thickets along airport margin. Visited 21 July, brief forays on additional days as time allowed. Land managed by State of Alaska.

Collections also made in vicinity of downtown and along Mud Bay Road, 3 km S of Haines, in area opposite Pyramid Island, and at Flat Bay, at the end of the road. Disturbed roadsides, strand beaches, uplifted beaches, back beach meadows, saline mud flats. Visited 21 July and 21 August. Land status uncertain, scattered private properties.

Skagway Quadrangle (B2)

Burro Creek headwaters, W of upper Taiya Inlet, 59°28'N, 135°29'W. 766 msm. Streambanks, moist, dense heath on granitic boulders. Visited 21 July. Land managed by BLM.

Chilkoot Lake, S end, 59°20'N, 135°34'W. 30 msm. Open Sitka spruce-hemlock forest bog. Visited 22 and 23 July. Land managed by State of Alaska.

Mt. Kashagnak, 5 km S of summit on SW facing slopes, 59°19.86'N, 135°42.75'W. 1070 msm. Rocky alpine dryas-heath-lichen tundra. Visited 20 August. Land managed by BLM.

Skagway Quadrangle (C2)

Upper Norse River, ridge above W side of river in vicinity of headwaters lake, 59°38.69'N, 135°27.62'W. 980 msm. Steep SE-facing heath slope, granitic rock outcrops and knolls. Visited 21 July. Land managed by BLM.

Skagway Quadrangle (C3)

Tohitkah Mountain, NE facing slopes 1.5 km NE of summit, 59°37.48'N, 136°02.41'W. 1220 msm. Boulder field in cirque with patches of heath, meadows, rocky knolls, low shrubs. Two adjacent sites on this slope were visited on different days. Visited 20 and 23 August. Land managed by BLM.