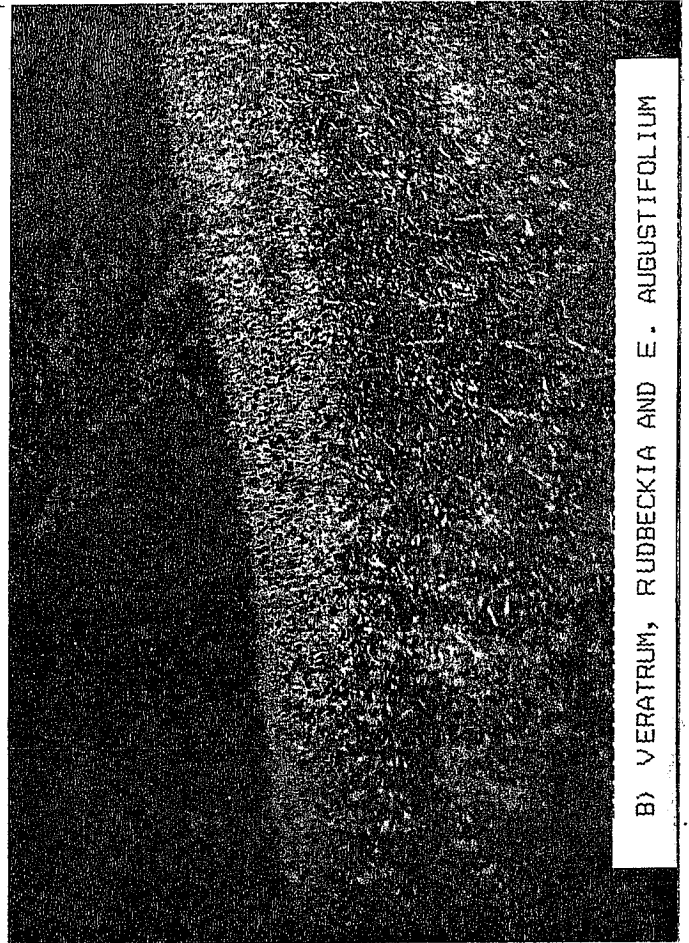
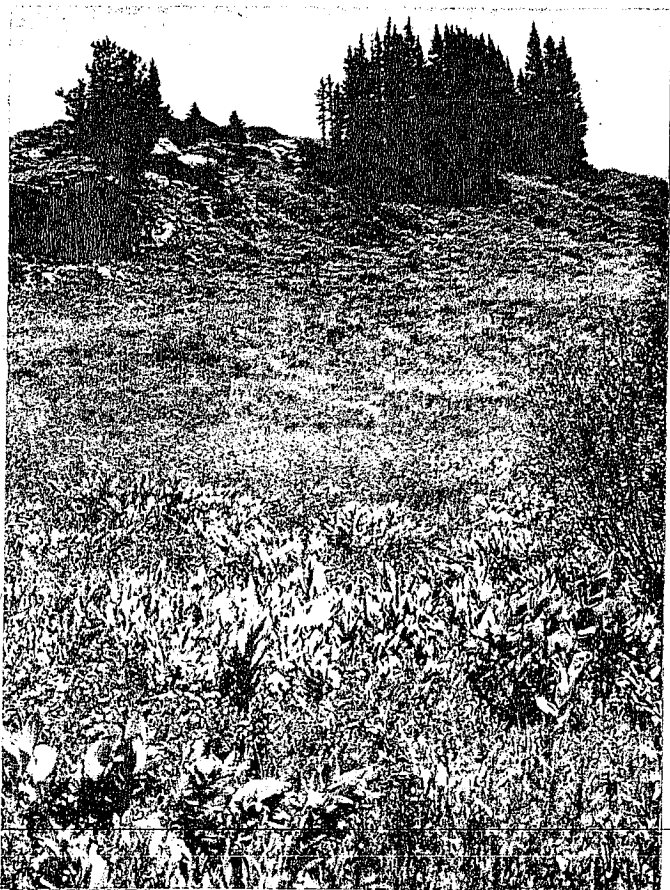


A) VERATRUM WITH UPLAND VEGETATION



B) VERATRUM, RUDBECKIA AND E. ANGUSTIFOLIUM



C) CASTILLEJA SPP. AND STRESSED VERATRUM



D) VERATRUM IN BLOOM

Albion Loop Rangesite Description

Of all the rangesites, Albion Loop suffers the heaviest human and vehicle impact. Encompassing roughly 29 acres, this rangesite includes the Campground, the hiker's parking facilities and trail heads to Cecret Lake, Pt. Supreme, Catherine's Pass and Sugarloaf Pass.

Conifers are persistent on a third of the site. The soils seem well drained and rocky in places. Deep-cut, gravelly stream washes, and one running stream travel through the campground. The water originates from the extremely steep slopes and cliffs towering over the campground to the south.

The wildflower arrangements in the meadows tend to be those tolerant of dryer conditions; Lupine spp., Castilleja spp., Penstemon spp. and Othocarpus tolmiei are examples. Under the conifers are E. augustifolium, P. folioissimum, R. occidentalis and V. edulis.

Albion Loop Transect Narratives

Transect 1

Date of Survey: 08/24/92

The Albion Basin Campground houses this transect. Beginning in the southwest corner of the loop road, at 9480 ft., the line moves to the south east corner of the loop road.

One gravelly, deep, dry wash with very sparse upland vegetation, and one broad, shallow, gravelly stream are the two major water courses through the site. The stream at the south west end hosts a S. drummondiana, P. fimbriata, Juncus spp. and C. cordifolia community. The banks have suffered from constant human impact. Nonpoint source pollution to the streams from this impact is evident.

The largest Valeriana edulis community in the study area was seen here, equalling roughly 5% of this transect. Accompanying the V. edulis was A. ludoviciana, E. augustifolium, S. foliaceus, Castilleja spp., Penstemon spp. and others. An estimated 37% of the transect is rated facultative or wetter and approximately 26% is Facultative Wetland or Obligate.

Transect 2

Date of Survey: 08/28/92

The meadow adjoining the Catherine's Pass road to the south is Transect 2. The area is a monotypic herbaceous community and is treated as one zone.

Aster chilensis, a well established little blue daisy aptly named "Everywhere Aster," gave this meadow some late August

color. A couple of Swertia radiata skeletons remained standing like watchtowers over the site. Dominant species include: E. augustifolium, A. ludoviciana, A. chilensis, O. tolmiei, Eriogonon spp., and Geranium spp.

One conspicuous dry channel enters the area at the southeast side. The vegetation in the channel does not differ from the surrounding vegetation except near the power line pole. R. occidentalis, M. ciliata, C. microptera, and V. edulis make up a small (<5%) cluster of Facultative-Facultative Wetland species. Approximately 15% of the vegetation is Fac> and less than 1% is FacW\Obl.

East Albion Basin Rangesite Description

Two transects in this "C" shaped rangesite cradle the Albion Loop rangesite. This transect begins at the east side of Albion Alps Subdivision, and extends past and above Catherine's Pass parking lot to the north. The elevation averages about 9600 ft., and spans approximately 26 acres.

Ground water seems to find its way to the surface in many places. Some wet areas are obvious, such as the presence of an extensive S. drummondiana zone clinging to a hillside. But other ground water discharge areas are not as obvious and are very delicate in appearance. The P. fimbriata, moss and Juncus spp. mark these usually small communities.

East Albion Basin Transect Narratives

Transect 1

Date of Survey: 08/24/92

This transect begins on the east side of the campground loop, and runs southwest into Albion Alps Subdivision. A large, dry gully marks the southwest boundary. Two cabins at the south end of Albion Basin Subdivision mark the north end.

This zone catches much of the run-off of the Supreme area. Salix communities mark the damp drainages, while small patches of P. fimbriata, E. coulteri, C. cordifolia, and P. groenlandica mark small ground water discharge areas that are characteristic of this site. Species such as A. ludoviciana, Cirsium vulgare, Castilleja spp., Pachystima myrsinites and Penstemon spp. populate the dryer soils.

The south end is different from the rest of the transect: it is a basin-like draw about 100 feet wide with a dry channel. E. augustifolium was by far the dominant vegetation at the time of the survey (about 70%). M. ciliata was thick along the dry channel. Approximately 78% of the coverage rated Fac> and 57% rated FacW/Obl.

Transect 2

Date of Survey: 08/25/92

Near the road leading to the top of Albion Lift is a band of Salix drummondiana traversing the hill toward the east. There are several clumps of A. lasiocarpa and P. engelmannii growing out of the Salix.

The meadows on either side were mostly A. engelmannii, Lupine spp., A. urticifolia and A. ludoviciana, with a small percent of A. foliaceus, C. microptera and Lonicer involucrata.

The Salix drummondiana has, on the upper side, a thin strip of V. californicum much like the V. californicum/R. occidentalis

borders seen in transect 2 of the Patsey Marley rangesite. Inside the dense Salix grows the usual A. columbianum, C. cordifolia and M. ciliata in the damp areas. The boggy areas have S. odontoloma, S. triangularis, H. dilitata, E. arvense, P. groenlandica, and C. aquatilis. The eastern side of the Salix community got progressively dryer. This was indicated by many dry channels and decreasing density of FacW/Obl species beneath the Salix. An estimated 60% of the coverage rated Fac>, and 32% rated as FacW/Obl.

Greeley Bowl and Upper Greeley Rangesite Description

This rangesite begins at 9100 ft. near the creek to 9600 ft. up in Greeley Bowl. The total acreage is about 34. Gunsight and High Greeley tower over this site with an elevation of over 10,000 ft.

The area was easily divided up into two parts: Greeley Bowl and Lower Greeley. The entire area has been heavily glaciated. Greeley Bowl is the upper section and is a bowl-like cirque, void of shrubs and conifers. The lower section is very steep, and hosts an extremely dense Salix drummondiana thicket.

A large drainage, originating at Gunsight, courses down this steep slope and supplies enough moisture to host a prominent and beautiful Mertensia ciliata community.

Greeley Bowl

Date of Survey: 08/28/92

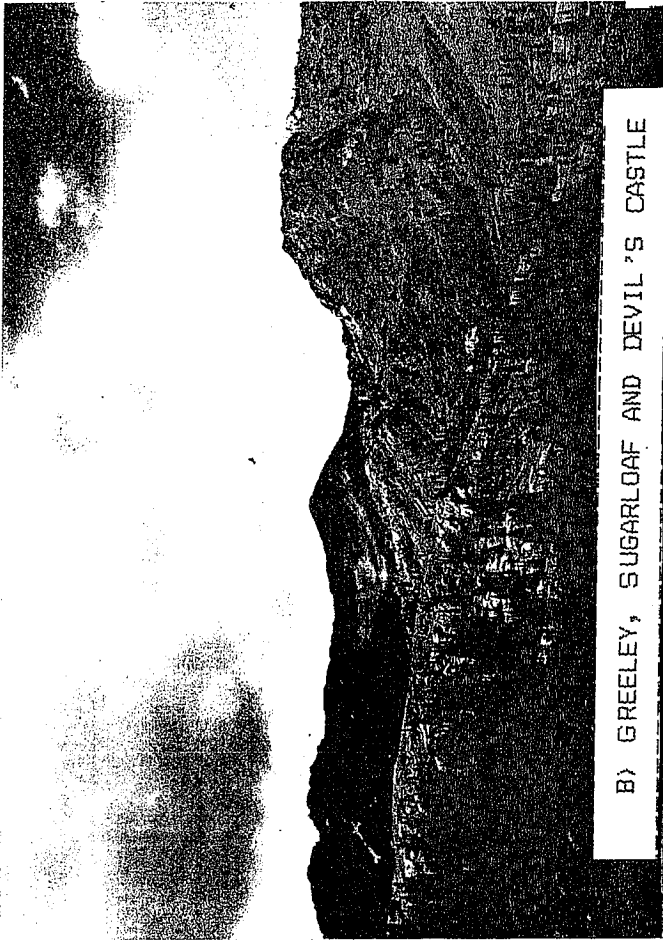
This transect starts at the Bowl's northeast side, and moves slightly upslope and to the southwest. The middle of the Bowl is moist enough to host C. microptera, J. arcticus, V. edulis, A. foliaceus and a few C. raynoldsii. At the time of the survey the J. arcticus was looking very stressed. In all, it seemed that this middle section of Fac> plants accounted for about 33% of the transect, and 25% rate FacW/Obl. A. urticifolia, Bromus spp., A. ludoviciana and Castilleja spp. are among the upland vegetation.

A large M. ciliata community in Gunsight drainage did not fall in line with this transect but is due south, approximately 150 feet or more, and is worth noting. The source of surface water was not apparent but appeared to seep out of the ground at several locations. This zone is at the same elevation as the bowl, and extends down slope.

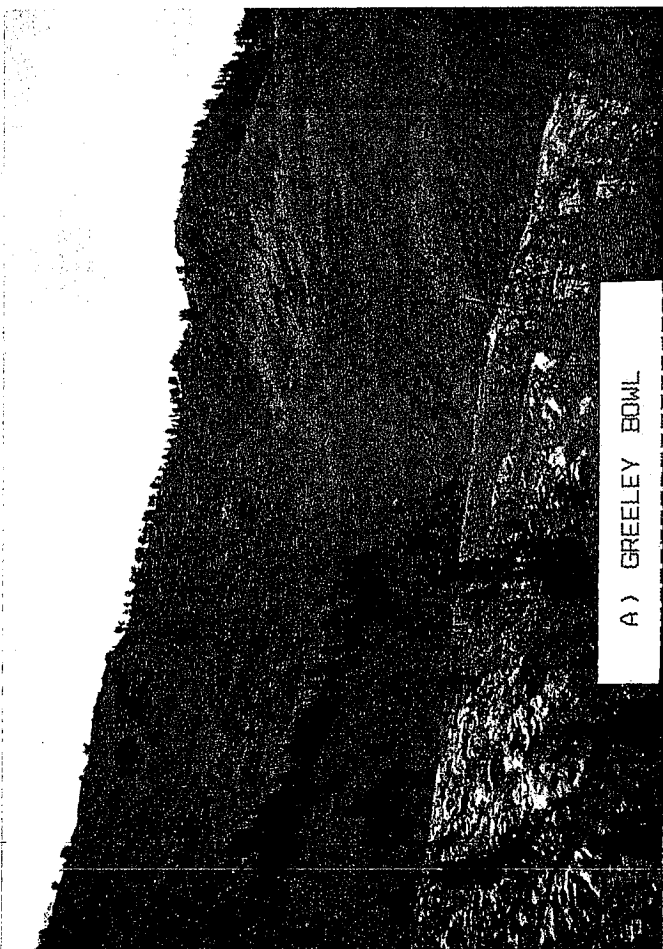
Lower Greeley

Date of Survey: 08/30/92

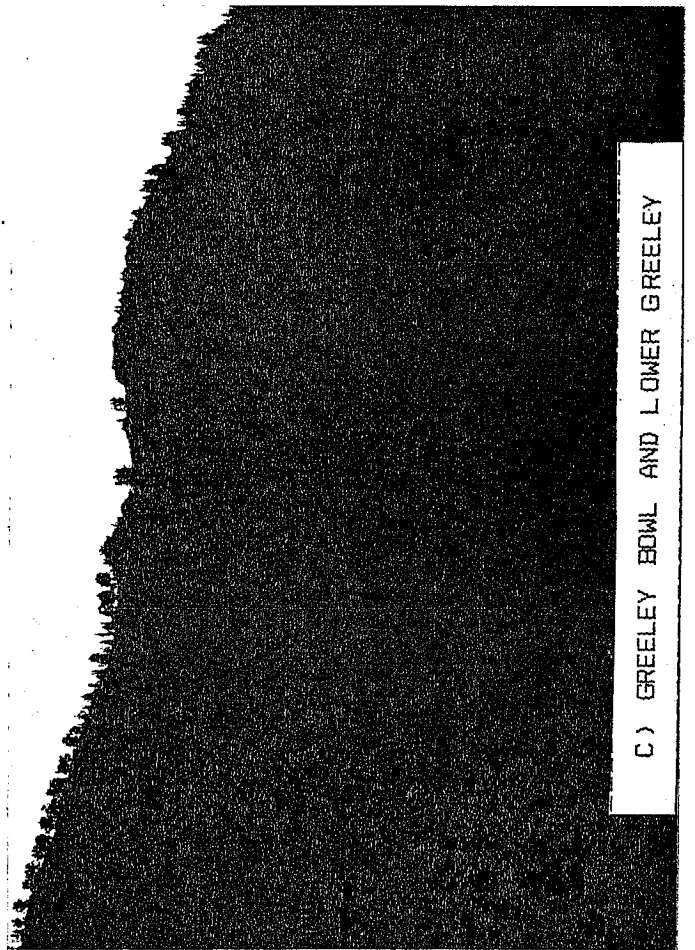
With an eastern aspect and an elevation of about 9100 ft., this is the discharge zone for underground water storage. The terrain is very steep and wet the entire traverse. A survey was possible only due to the extensive deer bedding grounds and deer trail network through the Salix drummondiana. Several running streams and many small dry channels were crossed. The running streams hosted lush communities of C. aquatilis, C. microptera, P. fimbriata, E. arvense, S. triangularis, S. odontoloma, Mimulus spp. and others. There were very few upland species present, the Facultative and Facultative Wetland/Obligate coverage equals nearly 95%. There were a couple small patches of A. ludoviciana, and Agastache uticifolia in little openings within the transect.



B) GREELEY, SUGARLOAF AND DEVIL'S CASTLE



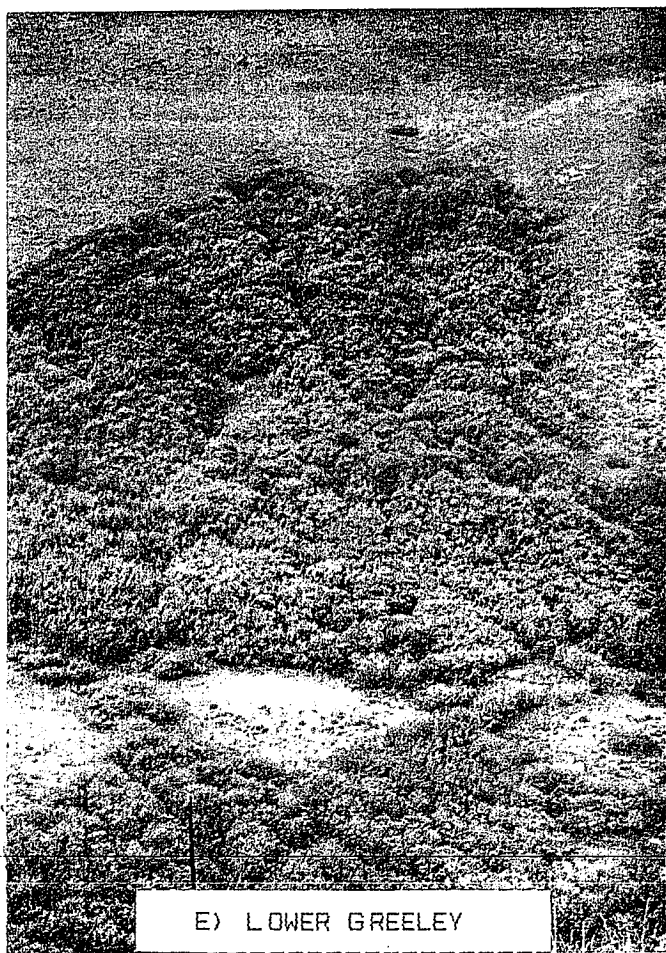
A) GREELEY BOWL



C) GREELEY BOWL AND LOWER GREELEY



D) GUNSIGHT WITH SNOW



E) LOWER GREELEY



F) MINE DUMP ON LOWER GREELEY

North Rustler Rangesite Description

At 8600 ft., on the south side of Little Cottonwood Creek, this rangesite zooms up to an elevation of 9400 ft. and has the distinction of being the only northern exposure in the study. It displays the feeling of coolness and shade. Conifers are located in small groups throughout the site.

There are two transects that include several dense Salix drummondiana stands and many drainages. The drainages dry up near the bottom, but are either little trickles or seeps by midway up slope. The vegetation in the openings is diverse. Ozmorhiza occidentalis is common, as is Sorbus scopulina, A. foliaceus, P. folioissimum, Potentilla spp., Lupine spp., and A. ludoviciana. Sharing the wet areas with the Salix are healthy communities of Juncus spp., M. ciliata, C. cordifolia, A. columbianum, and R. occidentalis to name a few.

North Rustler Transect Narratives

Transect 1

Date of Survey: 08/30/92

On the south bank of Little Cottonwood Creek, near the Albion Ticket Office, this transect charges up the steep North Rustler face at a slight angle to the west, and ends at the base of a cliff band near the top of the ridge.

Several Salix drummondiana-filled drainages are crossed. Associated with the Salix is A. columbianum, C. cordifolia, moss and H. sphondylium. There was no running water at the lower end of the transect. Between the Salix communities are meadow openings filled with many different species. The Facultative-Facultative Wetland species include E. augustifolium, P. folioissimum, A. foliaceus and R. occidentalis. The entire Facultative and wetter community is estimated to account for nearly 57% of the vegetation, and the Facultative Wetland\Obligate community is estimated to account for about 34%. The upland species in the meadows include Thalictrum fendleri, Geranium spp., A. engelmannii and Lupine spp.

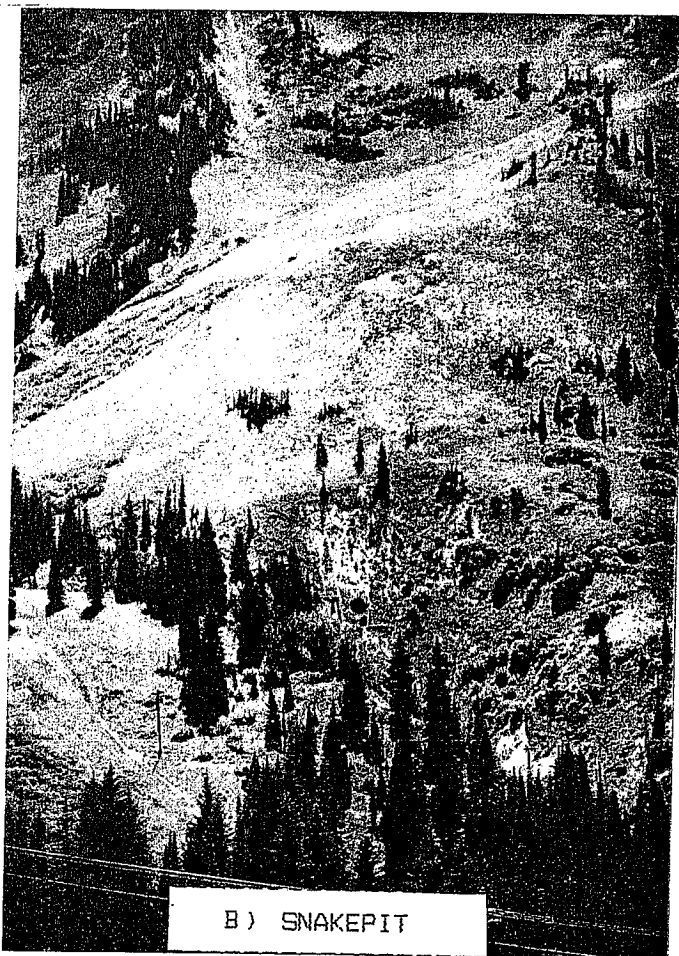
Transect 2

Date of Survey: 08/30/92

Transect 2 runs perpendicular to transect 1, and about midway up the North Rustler face. It cuts through S. drummondiana at an elevation of 9000 feet and contours east to Snake Pit Gully. The meadow vegetation is similar to transect 1. Surface water was plentiful in these high Salix thickets, and supported a higher percentage (approx. 68%) of Facultative Wetland\Obligate species. These species include; A. columbianum, C. cordifolia, S. triangularis, P. groenlandica, S. odontoloma and E. arvense. An estimated 73% of the vegetation is Facultative or wetter, and 68% is FacW\Obl.



A) SALIX DRUMMONDIANA AND OPEN MEADOWS



B) SNAKEPIT



C) NORTH RUSTLER

Creek Townsite Rangesite Description

Little Cottonwood Creek has many small tributaries; Little Cottonwood Creek drains all the water from Albion Basin, Grizzly Gulch, the Emma Hill area, Collins Gulch and on down the canyon. The rangesite lies along the historic mining town site of Central City, also the present day location of the Alta Ski Lift's transfer tow. Construction of a new transfer tow system required landscape alterations and consequent revegetation. Alta Ski Lifts, Inc. revegetated the wetland areas with a seed mix containing Agrostis alba, Deschampsia spp., Phleum pratense, Poa pratensis, Alopecurus arundinaceus and Carex spp. (Alta Ski Lifts, Inc. 1992).

The rangesite exhibits several separate vegetation zones. The elevation change is very slight beginning at 8600 ft. at the east end of the transfer tow and ending at 8560 at the west end of the transfer tow near the Goldminers Daughter Lodge. Surface discharge areas from the foot of Emma Ridge, and water from the Tom Moore mine provides habitat for S. drummondiana, Juncus spp., and other wetland species at the west end.

Creeksite Transect Narratives

Transect 1

Date of Survey: 09/02/92

Although the transect runs straight down Little Cottonwood Creek it was difficult to represent accurately the communities without dividing up the transect into three major zones. These are; the south side of the creek, the middle section (which includes the creek), and the north side of the creek.

The south side, in general, is monotypic. Conifers shade the area and A. millefolium, T. fendleri, Castilleja spp., E. augustifolium, and C. microptera are the dominant herbs.

The middle section includes Little Cottonwood Creek and its associated S. drummondiana community. This changes very little throughout the length of the transect. Also present is Stellaria longipes, C. microptera, Heracleum sphondylium, R. occidentalis, Valeriana edulis, and M. ciliata.

The north section is more diverse, beginning at the east end with cobbly, rocky, stream-bed type ground. Phacelia heterophylla, A. ludoviciana and O. tolmiei are some species growing in the rocky ground. Toward the middle the rocks give way to soil and it gets increasingly damper. Heracleum sphondylium, a tall, stately plant usually seen in the other transects either growing by itself or in small patches, looks somewhat amusingly out of place here where it reigns over about a quarter of an acre. Also growing here is F. virginiana, C. microptera,

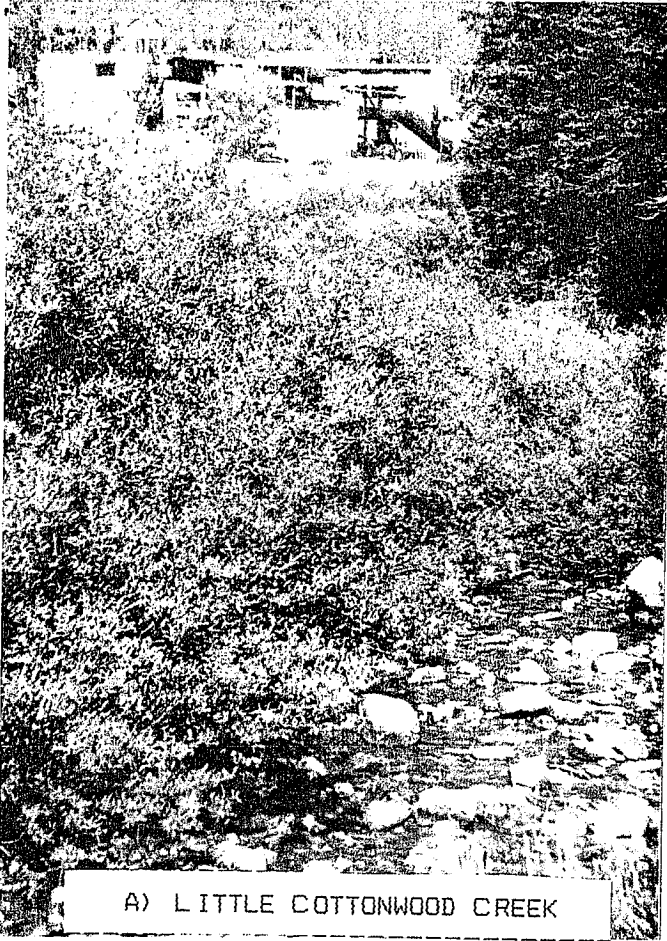
Agrostis hyemalis, Calamagrostis canadensis, E. augustifolium, and

others. Overall, it is estimated that 52% of the vegetation has a rating of Facultative or wetter, and 33% is rated as Facultative Wetland or Obligate wetland species.

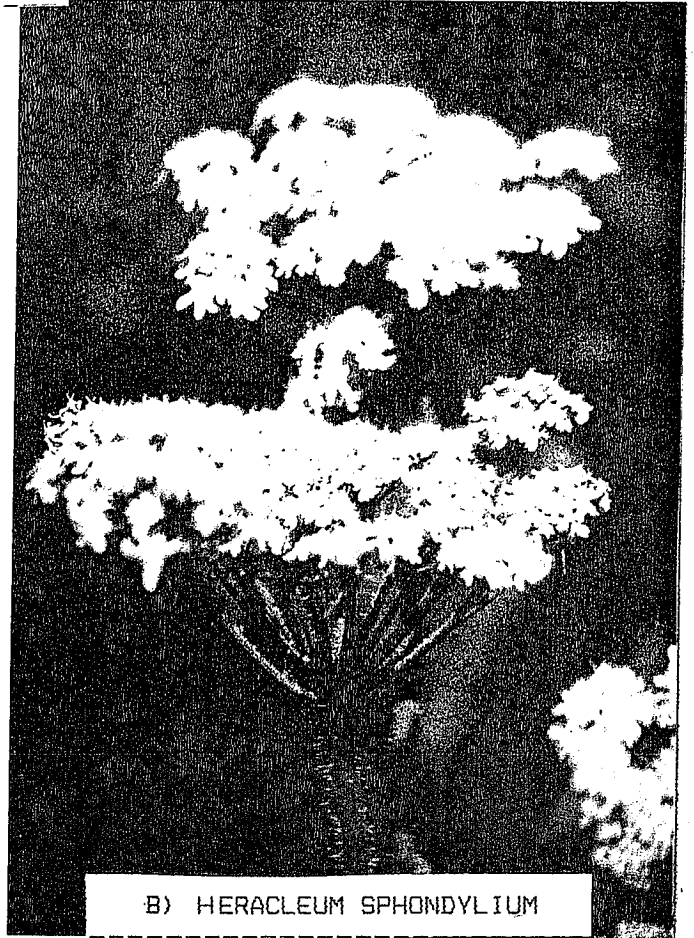
Transect 2

Date of Survey: 09/02/92

At an elevation of 8300 ft. this S. drummondiana community lies against the toe of Emma Ridge, 150 feet or so from Little Cottonwood Creek. There was no running water noted but the soil was damp. With S. drummondiana there was a variety of Facultative Wetland and Obligate wetland species including; C. cordifolia, A. columbianum, L. involucrata, Deschampsia spp., and Juncus arcticus. A seldom used access road interrupted the Salix thicket offering habitat for Agrostis hyemalis, Juncus arcticus, Carex microptera, Calamagrostis canadensis, P. alpinum and Bromus spp. Facultative Wetland and Obligates occupied roughly 89% of the transect.



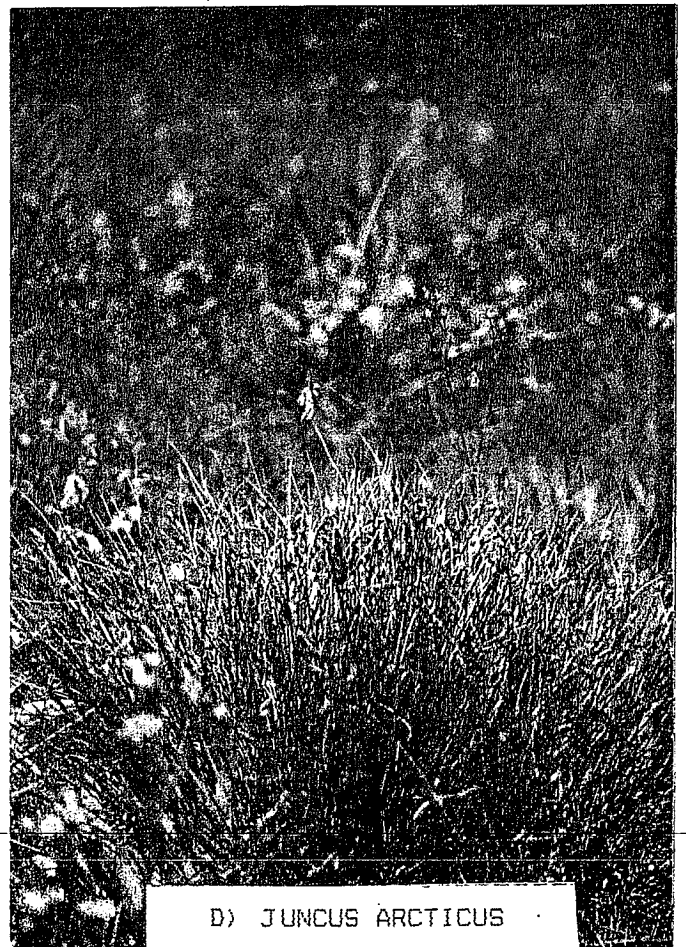
A) LITTLE COTTONWOOD CREEK



B) HERACLEUM SPHONDYLIIUM



C) VIEW OF CREEK TOWNSITE



D) JUNCUS ARCTICUS

Emma Ridge Rangesite Description

In August, 1865 the first claim in Little Cottonwood Mining District was made. Hundreds of claims were made in the upper reaches of the canyon. Names like Glory Hole, Snake Pit, Patsey Marley, Peruvian Gulch and Grizzly Gulch testify to the intensity of the mining endeavor. The most productive mines were on the Emma and Davenport Hills. Thirteen prominent mines were located in this area, and many more were dug, but not with much success (Bowman 1967).

Mining roads, drain channels, mine dumps, and rusty artifacts are obvious reminders of Alta's history. Honeycombing through the mountain are shafts and tunnels, many filled with water. On the surface, however, is a south facing moderate to steep slope, with damp soils most often found in the drainage swales.

Populus tremuloides and a few A. lasiocarpa account for most of the overstory, which exists in 2 of the 3 transects. Shrubs like Prunus virginiana, Symphoricarpos oreophilus, Salix scouleriana, and L. involucrata account for much of the understory. Salix drummondiana was confined to the deeply cut drainages (with one exception in transect 3). Obligate communities, such as those found in other rangesites, were not noted in any of the Emma Ridge transects.

Emma Ridge Transect Narratives

Transect 1

Date of Survey: 08/31/92

Beginning at the Alta Central Building, this transect runs east along a contour of 8800 feet elevation, the aspect of the slope is south. No running water was crossed, but several dry drainages, some of which were large, support S. drummondiana, P. virginiana, L. involucrata, R. occidentalis and M. ciliata. P. tremuloides were persistent throughout the line.

The expanses between the drainages were principally covered with vegetation associated with upland conditions. The species include; Viguiera multiflora, Lupine spp., Bromus spp., Phleum alpinum, Agropyron sp., Pachystima sp. and L. nuttallii. Nearly 20% of the vegetation was estimated as Fac>, and 10% as FacW\Obl.

Transect 2

Date of Survey: 09/10/92

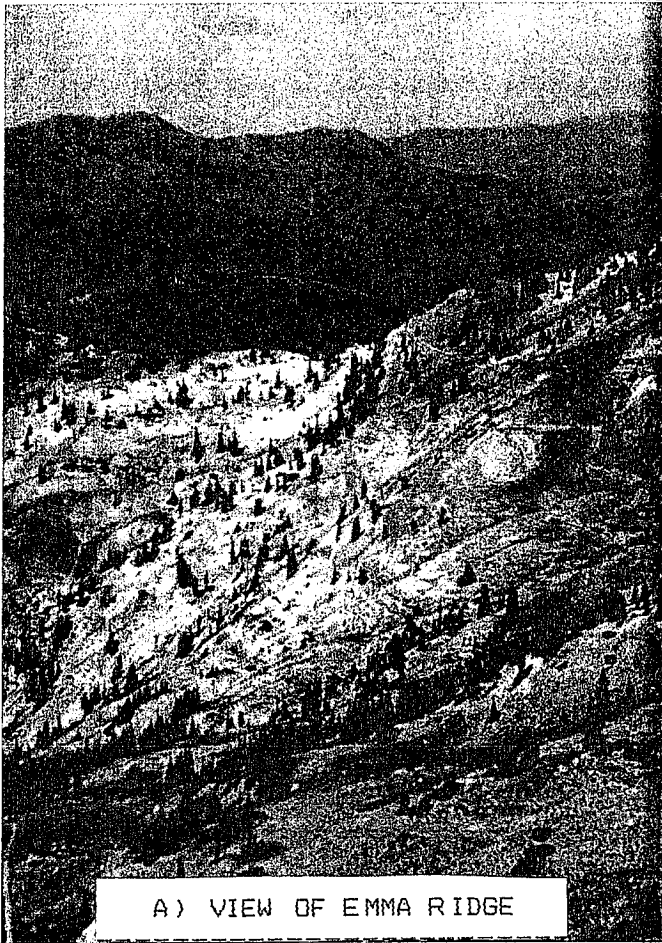
This transect begins near the Town of Alta's water reservoir, and contours at 8900 ft. eastward to Grizzly Gulch. It is similar to transect 1. B. occidentalis, Acer glabrum and Quercus gambelii were first noted in this area. They occur in very small populations. The Fac> species were estimated at covering 19% and FacW\Obligates as 10% of the transect.

Transect 3

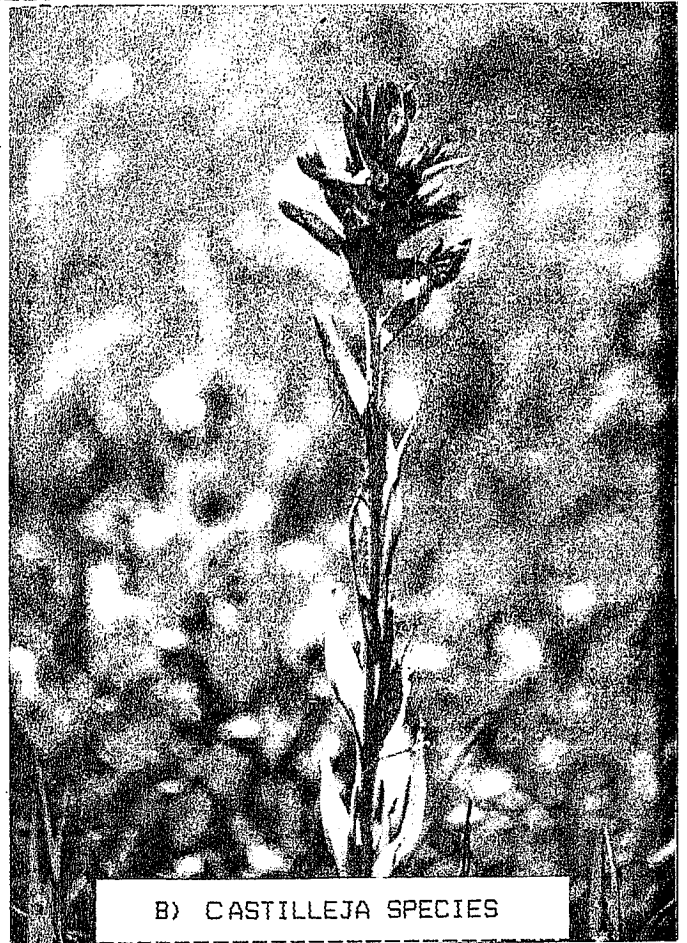
Date of Survey: 09/10/92

This transect runs on a 9000 ft. contour beginning at the Salix community under the Cardiff pole line, and extends easterly for approximately 800 feet. The Salix drummondiana community is the lone Fac-FacW population in the transect and accounts for approximately 10%. Species within the Salix community are Betula occidentalis and C. microptera.

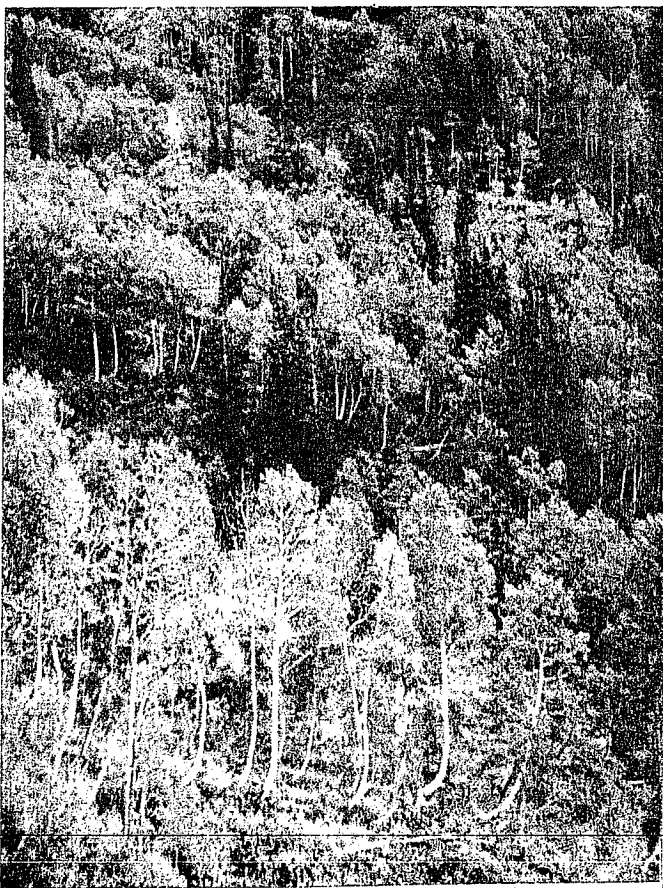
Populating the remainder of the transect is; P. virginiana, S. oreophilus, Agastache urticifolia, A. engelmannii, Bromus spp., Agropyron trachycaulum, Stipa lettermannii, Trisetum spicatum, Betula occidentalis, Ribes spp. and Lupine spp. Approximately 11% of the transect had Facultative or wetter vegetation, and 10% was Facultative Wetland\Obligate.



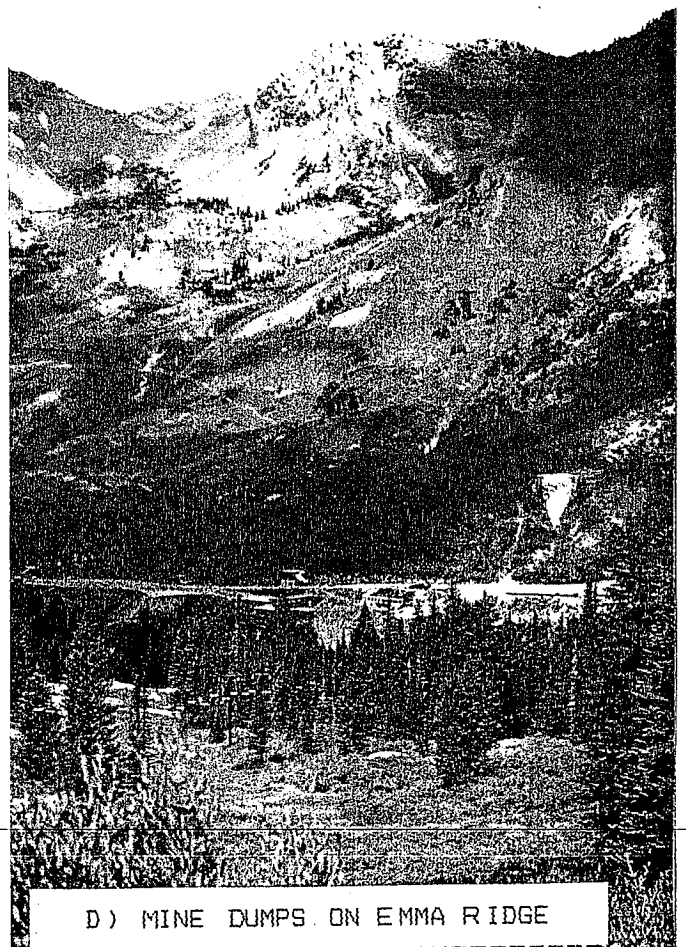
A) VIEW OF EMMA RIDGE



B) CASTILLEJA SPECIES



C) ASPEN GROVE NEAR GRIZZLY GULCH



D) MINE DUMPS ON EMMA RIDGE

Catherine's Pass Rangesite Description

From the Catherine's Pass trailhead, this site lies about one mile to the east, with a 600 ft. elevation gain, in an old glacial cirque. Mt. Wolverine rises to the north, and Catherine's Pass to the east and south. The rock is principally grandiorite. There are 3 major intermittent steams draining into the bowl, and one outlet that lies at the southwest end. These all were dry at the time of the survey.

Two transects were taken representing about 3 acres. One runs north-south and the other runs east-west. These intersect but do not cross each other. Much of the area was saturated and supported obligate plants such as S. phylicifolia, C. aquatilis, P. groenlandica, and Spiranthes romanzoffiana. S. phylicifolia and S. romanzoffiana are not common in the basin and were found only in peaty, fen-like areas similar to the one under Cecret Lift, West Albion Basin Rangesite, transect 5.

Also of interest are the four pot holes located in transect 2. These are filled with murky, brown water of unknown depth. The sizes range from the smallest, about 30 inches in diameter, to the largest that is about twice the size of a bathtub.

Catherine's Pass Transect Narratives

Transect 1

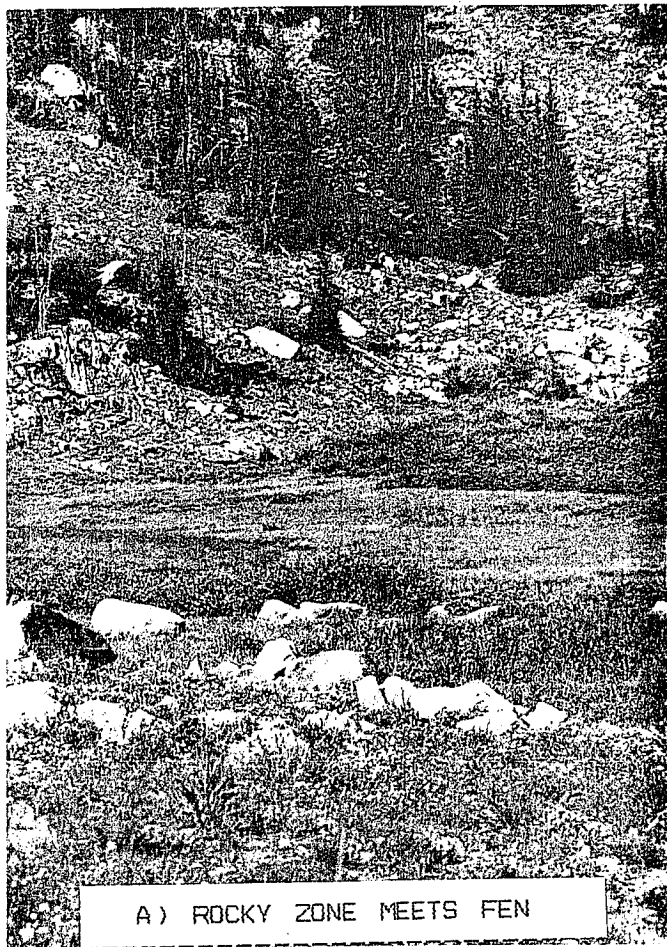
Date of Survey: 08/23/92

Running southeast-northwest this transect crosses a dry channel that originates in the Catherine's Pass area. It is lined with S. drummondiana, a few scattered plants of R. occidentalis and V. californicum. The middle section cuts through a C. aquatilis field. P. groenlandica, past its flowering prime, was dispersed throughout the aquatilis field. A few delicate, white Spiranthes romanzoffiana were easily noticed. An estimated 90% of the coverage rates as FacW/Obl.

Transect 2

Date of Survey: 08/23/92

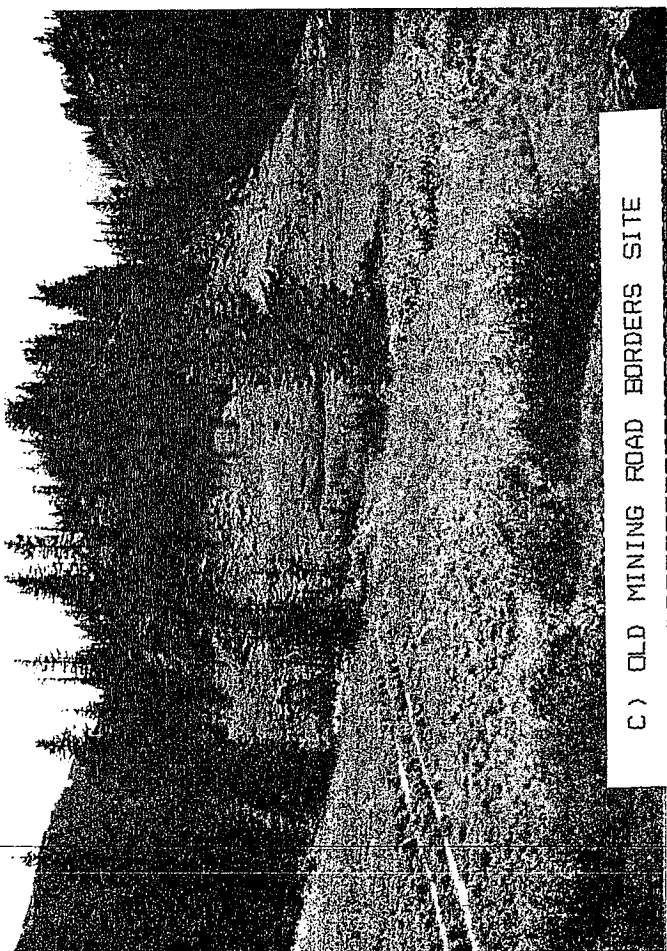
At an elevation of 10,000 ft., the transect in this alpine cirque supports a very large community of obligate wetland species in peaty, fen-like soils. The obligates include; C. aquatilis, S. phylicifolia, V. californicum and S. romanzoffiana. This was the only site within the entire Albion Basin study area that flowering V. californicum were seen. Several P. engelmannii stand in a clump at the northeast end. Along the edge of the transect the soil becomes rocky and the vegetation changes to A. ludoviciana, P. alpinum, A. millefolium and Geranium spp. Four water-filled potholes, not easily seen, lie at the northeast end of the transect. These holes vary from 30 inches across to 10 ft. An estimated 96% are rated as Fac>, and 87% as FacW/Obl.



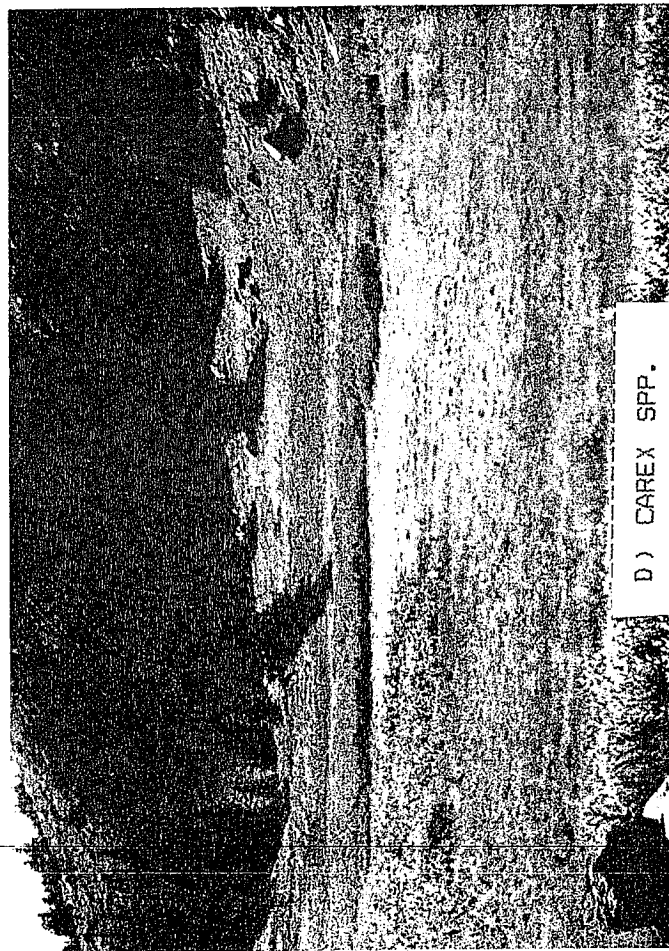
A) ROCKY ZONE MEETS FEN



B) STEEP SLOPE ON NORTH SIDE



C) OLD MINING ROAD BORDERS SITE



D) CAREX SPP.

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APPENDIX A: GENERAL PLANT LIST

The following is an alphabetical listing of plants that were verified using taxonomic keys (Arrow et al. 1980 and Hitchcock and Cronquist 1981). This list was compiled during the rangesite surveys. Although there was not an attempt to identify every genus in the Albion Basin, the list exemplifies the wide diversity of vegetation that does exist in the area that was studied.

TREES

<i>Abies lasiocarpa</i>	Subalpine Fir
<i>Picea engelmannii</i>	Engelmann Spruce
<i>Pinus flexilis</i>	Limber Pine
<i>Populus tremuloides</i>	Quaking Aspen

SHRUBS

<i>Acer glabrum</i>	Rocky Mountain Maple
<i>Betula occidentalis</i>	Western Water Birch
<i>Lonicera involucrata</i>	Bearberry
<i>Pachystima myrsinites</i>	Pachystima
<i>Populus x acuminata</i>	Lanceleaf Cottonwood
<i>Potentilla fruticosa</i>	Shrubby Cinquefoil
<i>Prunus virginiana</i>	Western Chokecherry
<i>Ribes</i> spp.	Current
<i>Rosa woodsii</i>	Woods Rose
<i>Salix amygdaloides</i>	Peachleaf Willow
<i>S. drummondiana</i>	Drummonds Willow
<i>S. phylicifolia</i>	Planeleaf Willow
<i>S. scouleriana</i>	Scoulers Willow
<i>Sambucus caerulea</i>	Blue Elderberry
<i>S. racemosa</i>	Red-berried Elder
<i>Sorbus scopulina</i>	Mountain Ash
<i>Symphoricarpos oreophilus</i>	Snowberry
<i>Quercus gambelii</i>	Gambel Oak

GRASSES

<i>Agropyron trachycaulum</i>	Slender Wheatgrass
<i>Agrostis exarata</i>	Spike Bentgrass
<i>A. hyemalis</i>	Ticklegrass
<i>Bromus ciliatus</i>	Fringed Brome
<i>B. inermis</i>	Smooth Brome
<i>Calamagrostis canadensis</i>	Bluejoint
<i>Carex aquatilis</i>	Water Sedge
<i>C. lenticularis</i>	Shore Sedge
<i>C. microptera</i>	Smallwing Sedge
<i>C. raynoldsii</i>	Raynolds Sedge
<i>C. rostrata</i>	Beaked Sedge
<i>Dactylis glomerata</i>	Orchard Grass
<i>Deschampsia caespitosa</i>	Tufted Hairgrass
<i>D. elongata</i>	Slender Hairgrass
<i>Festuca pratensis</i>	Meadow Fescue
<i>Hordeum jubatum</i>	Barley Foxtail
<i>Juncus arcticus</i>	Arctic Rush

(grasses cont.)

J. ensifolius
J. longistylus
J. mertensianus
J. regelii
Muhlenbergia filiformis
Phleum alpinum
Stipa Lettermannii
Trisetum spicatum

Swordleaf Rush
Longstyle Rush
Mertens Rush
Regal Rush
Pull-up Muhly
Alpine Timothy
Letterman Needlegrass
Spike trisetum

HERBS

Achillea millefolium
Aconitum columbianum
Actaea rubra
Agastache urticifolia
Androsace septentrionalis
Angelica pinnata
Artemisa ludoviciana
Aster chilensis
A. engelmannii
A. foliaceus
Berberis repens
Castilleja spp.
Cardamine cordifolia
Cirsium vulgare
Delphinium occidentale
Descurainia richardsonii
Dodecatheon sp.
Epilobium augustifolium
E. ciliatum
Eriogonum heracleoides
Erigeron coulteri
Equisetum arvense
Fragaria virginiana
Galium trifidum
Geranium spp.
Gentianella amarella
Gilia aggregata
Habenaria dilatata
Hackelia micrantha
Helianthella uniflora
Heracleum sphondylium
Ligusticum filicinum
Linanthus nuttallii
Linum perenne
Lupinus spp.
Mertensia ciliata
Mimulus guttatus
M. lewisii
Mitella pentandra
Monardella odoratissima
Ozmorhiza occidentalis
Orthocarpus tolmiei

Yarrow
Columbia Monkshood
Western Baneberry
Horsemint
Pygmyflower Rock Jasmine
Small-leaf Angelica
Louisiana Sage
Everywhere Aster
Engelmann Aster
Leafy-bract Aster
Oregon Grape
Indian Paintbrush
Heartleaf Bittercress
Bull Thistle
Duncecap Larkspur
Tansey Mustard
Shooting Star
Common Fireweed
Hairy Willowweed
Wyeth Buckwheat
Coulter Fleabane
Field Horsetail
Wild Strawberry
Small Bedstraw
Geranium
Little Gentian
Skyrocket Gilia
Bog Orchid
Jesse's Tickweed
Little Sunflower
Cowparsnip
Fernleaf Loveage
Nuttall's Flaxflower
Wild Flax
Lupine
Mountain Bluebells
Common Monkeyflower
Lewis Monkeyflower
Fivestamen Miterwort
Cloverhead Horsemint
Sweetanise
Tolmie Owlclover

(herbs cont.)

Parnassia fimbriata

Pedicularis groenlandica

P. racemosa

Phacelia heterophylla

Polemonium folioissimum

Penstemon spp.

Potentilla glandulosa

P. gracilis

Rudbeckia occidentalis

Rumex acetosella

R. crispus

Saxifraga odontoloma

Senecia streptanthifolius

S. triangularis

Smilacina stellata

Spiranthes romanzoffiana

Stellaria longipes

Steptopus amplexifolius

Swertia radiata

Thalictrum fendleri

Valeriana edulis

Veratrum californicum

Veronica americana

V. wormskjoldii

Viguiera multiflora

Fringed Grass-of-

Parnassus

Elephant's Head

Parrotbeak Lousewort

Varileaf Scorpionweed

Leafy Jacob's Ladder

Penstemon

Gland Cinquefoil

Soft Cinquefoil

Western Coneflower

Mountain Sheep Sorrel

Curly Dock

Brook Saxifrage

Cutleaf Groundsel

Arrowleaf Groundsel

Wild Lily-of-the-Valley

Hooded Ladies' Tresses

Twisted Stalk

Longstalk Starwort

Green Gentian

Fendler Meadow Rue

Edible Valerian

False Hellebore

American Brookline

Alpine Speedwell

Showy Goldeneye

[illegible]

APPENDIX B: ALBION BASIN WETLAND PLANTS

OBLIGATE WETLAND SPECIES

SCIENTIFIC NAME	COMMON NAME
<i>Calamagrostis canadensis</i>	Bluejoint
<i>Carex aquatilis</i>	Water Sedge
<i>C. lenticularis</i>	Shore Sedge
<i>C. rostrata</i>	Beaked Sedge
<i>Galium trifidum</i>	Small Bedstraw
<i>Juncus arcticus</i>	Arctic Rush
<i>J. mertensianus</i>	Merten's Rush
<i>Mertensia ciliata</i>	Mountain Bluebells
<i>Mimulus guttatus</i>	Common Monkey-flower
<i>M. lewisii</i>	Lewis Monkey-flower
<i>Parnassia fimbriata</i>	Fringer Grass-of-Parnassus
<i>Pedicularis groenlandica</i>	Elephant's Head
<i>Salix phylicifolia</i>	Planeleaf Willow
<i>Senecio triangularis</i>	Arrowleaf Groundsel
<i>Spiranthes romanzoffiana</i>	Hooked Ladies' Tresses
<i>Veratrum californicum</i>	False Hellebore
<i>Veronica americana</i>	American Brookline

FACULTATIVE WETLAND SPECIES

SCIENTIFIC NAME	COMMON NAME
<i>Aconitum columbianum</i>	Columbia Monkshood
<i>Agrostis exarata</i>	Spike Bentgrass
<i>Angelica pinnata</i> (Nat-Ind)	Small-leaf Angelica
<i>Aster foliaceus</i>	Leafy-bract Aster
<i>Betula occidentalis</i>	Western Water Birch
<i>Cardamine cordifolia</i> (+)	Heartleaf Bittercress
<i>Carex microptera</i>	Smallwing Sedge
<i>Deschampsia caespitosa</i>	Tufted Hairgrass
<i>D. elongata</i>	Slender Hairgrass
<i>Dodecatheon</i> sp.	Shooting Star
<i>Erigeron coulteri</i>	Coulter Fleabane
<i>Gentianella amarella</i>	Little Gention
<i>Hordeum jubatum</i> (-, dra)	Foxtail Barley
<i>Juncus ensifolius</i> (+)	Swordleaf Rush
<i>J. longistylus</i> (+)	Longstyle Rush
<i>Mitella pentandra</i>	Fivestamen Miterwort
<i>Muhlenbergia filiformis</i> (+)	Pull-up Muhly
<i>Potentilla fruticosa</i>	Shrubby Cinquefoil

(FacW Cont.)

Rumex crispus (Dra)
Salix drummondiana (+)
Saxifraga odontoloma (+)
Stellaria longipes (+)
Streptopus amplexifolius
Valeriana edulis (-)

Curly Dock
Drummond Willow
Brook Saxifrage
Longstalk Starwort
Twisted Stalk
Edible Valerian

FACULTIVE SPECIES

Scientific Name

Common Name

Abies Lasiocarpa (-)
Acer glabrum
Agrostis hyemalis
Carex raynoldsii
Epilobium augustifolium
E. ciliatum (dra)
Equisetum arvense (+)
Fragaria virginiana (-)
Heracleum sphondylium
Lonicera involucrata
Picea engelmannii
Polemonium foliosissimum
Populus x acuminata (+)
Populus tremuloides
Potentilla gracilis
Prunus virginiana
Rosa woodsii (-)
Rudbeckia Occidentalis
Rumex acetosella (-)
Salix scouleriana
Senecia streptanthifolius (-)
Smilicina stellata (-)

Subalpine Fir
Rocky Mountain Maple
Ticklegrass
Raynolds Sedge
Common Fireweed
Hairy Willowweed
Field Horsetail
Wild Strawberry
Cowparsnip
Bearberry
Engelmann Spruce
Leafy Polemonium
Lanceleaf Cottonwood
Quaking Aspen
Soft Cinquefoil
Western Chokecherry
Woods Rose
Western Coneflower
Sheep Sorrel
Scouler's Willow
Cutleaf Groundsel
Wild Lily-of-the-Valley



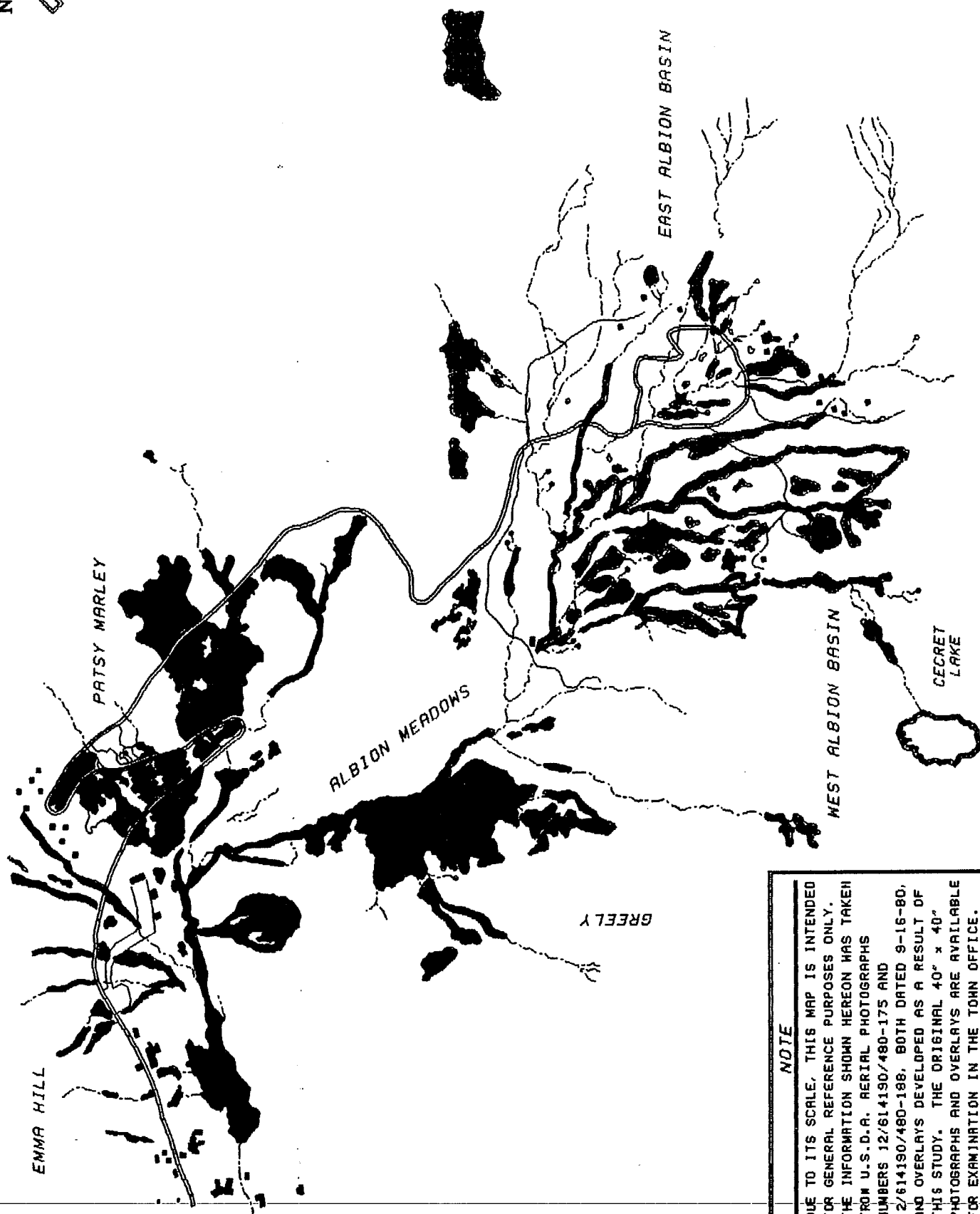
NORTH

ALTA, UTAH WETLAND VEGETATION

5000

1000

FEET 0



NOTE

DUE TO ITS SCALE, THIS MAP IS INTENDED FOR GENERAL REFERENCE PURPOSES ONLY. THE INFORMATION SHOWN HEREON WAS TAKEN FROM U.S.D.A. AERIAL PHOTOGRAPHS NUMBERS 12/614190/480-175 AND 12/614190/480-188, BOTH DATED 9-16-80, AND OVERLAYS DEVELOPED AS A RESULT OF THIS STUDY. THE ORIGINAL 40" x 40" PHOTOGRAPHS AND OVERLAYS ARE AVAILABLE FOR EXAMINATION IN THE TOWN OFFICE.

