

This report has been compiled by John DeLapp of The Nature Conservancy's Alaska Natural Heritage Program under a Challenge Cost-Share agreement with the Alaska Region of the U.S. Forest Service.

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NOTICE:

The information contained in this report is from a dynamic biological database which is constantly updated. As the database is expanded and revised, some information in this report may be found to be outdated or no longer valid.

Management decisions should not be based on this document without first contacting the Alaska Natural Heritage Program for the current status and additional information on these taxa.

PREFACE

This report is a product of a cooperative project between The Nature Conservancy's Alaska Natural Heritage Program (AKNHP) and the U.S. Forest Service Alaska Region's Threatened, Endangered, and Sensitive Species (TES) Program. Mutual interest in TES species inventory and monitoring has resulted for the second year in AKNHP botanist John DeLapp producing a list of rare vascular plant species for the Tongass and Chugach National Forests in Alaska. The list is accompanied by a computerized database version with similar fields.

Based upon the Natural Heritage Program ranking of abundance and distribution, this year's review has produced an initial list of 33 plant taxa considered worthy of sensitive plant designation by AKNHP. The ranking determination uses global and state plant occurrence patterns to order the status of a species.

The standard ranks range from globally rare or endangered, state rare or endangered (G1/S1) to globally abundant, state abundant (G5/S5). Our initial research and inventory of sensitive candidates concentrated on G1, G2, and G3 plant species. The ranking and review will provide the Regional Forester with the necessary information to establish a Sensitive Vascular Plant Species List. The 33 proposed sensitive plant taxa are ranked at the G1, G2, or G3 level. In addition to these taxa, there are 111 species ranked G4 or G5 that are globally more common but rare on USFS lands in Alaska and possibly vulnerable to extirpation there. These are listed as Potential Sensitive Plant Taxa. Should inventories show that any of these taxa are truly rare on either of the Alaska National Forests, we will then propose them for sensitive species designation.

This report will be a practical reference for managers, scientists and planners within the U.S. Forest Service. This effort represents a continuing effort to integrate a wide variety of information into a permanent, ongoing information database for use in sensitive plant species management. The purpose is to stimulate basic research, inventory, and monitoring while creating the best-informed institutional memory for the decision-makers of our Forests.

ACKNOWLEDGEMENTS

This cooperative project was the result of many hours of work by people within the U.S. Forest Service who were dedicated to our common objectives and we are grateful to them all.

Regional and Tongass personnel who were key to the realization of this project include Jack Capp, Wildlife and Fisheries Director; Bob Dewey, Planning Coordinator; Cris Iverson, acting TES Program Manager; and Mary Muller, Regional Botanist.

The Chugach National Forest staff has been particularly supportive of our TNC botanist. Special thanks go to Bruce Van Zee, Forest Supervisor; Mike Novy, Fish and Wildlife Staff Officer; Susan Borchers, Forest Ecologist; and Kim Barber, Wildlife Planner.

Others outside of the Forest Service have provided assistance, without which this report would not be possible. Of particular note are Dr. Dave Murray, Carolyn Parker, and Al Batten of the University of Alaska Fairbanks Museum Herbarium. We would also like to extend our thanks to Dr. George Argus of the Canada Museum of Nature, William Cody of the Vascular Plant Herbarium of the Biosystematics Research Institute of Agriculture Canada, and Debbie Bell of the U. S. National Herbarium.

TABLE OF CONTENTS

PREFACE.....	i
ACKNOWLEDGEMENTS.....	ii
TABLE OF CONTENTS.....	iii
INTRODUCTION.....	1
PART ONE: Rare Vascular Plant Taxa by Rank.....	11
USFS Alaska Region.....	12
Chugach National Forest.....	16
Tongass National Forest.....	18
PART TWO: Watch List of Rare Vascular Plant Taxa by Rank.....	23
USFS Alaska Region.....	24
Chugach National Forest.....	26
Tongass National Forest.....	28
PART THREE: Species Descriptions.....	31
<u>Androsace alaskana</u>	33
<u>Aphragmus escholtzianus</u>	37
<u>Arnica lessingii</u> ssp <u>norbergii</u>	41
<u>Atriplex alaskensis</u>	47
<u>Carex lenticularis</u> var <u>dolia</u>	51
<u>Castilleja chrymactis</u>	59
<u>Cirsium edule</u>	67
<u>Dodecatheon pulchellum</u> ssp <u>alaskanum</u>	71
<u>Draba borealis</u> var <u>maxima</u>	77
<u>Draba kamtschatica</u>	85
<u>Draba kananaskis</u>	88
<u>Draba ruaxes</u>	91
<u>Gentianella propinqua</u> ssp <u>aleutica</u>	95
<u>Glyceria leptostachya</u>	99
<u>Hymenophyllum wrightii</u>	103
<u>Isoetes truncata</u>	107
<u>Ligusticum calderi</u>	111
<u>Papaver alboroseum</u>	115
<u>Phyllospadix serrulatus</u>	125
<u>Platanthera chorisiana</u>	133
<u>Platanthera gracilis</u>	139
<u>Poa laxiflora</u>	145

<u>Poa turneri</u>	153
<u>Polystichum setigerum</u>	157
<u>Puccinellia glabra</u>	159
<u>Puccinellia kamtschatica</u>	165
<u>Ranunculus orthorhynchus</u> var <u>alascensis</u>	169
<u>Romanzoffia unalascensis</u>	175
<u>Salix reticulata</u> ssp <u>glabelllicarpa</u>	181
<u>Salix setchelliana</u>	185
<u>Senecio moresbiensis</u>	189
<u>Stellaria ruscifolia</u> ssp <u>aleutica</u>	195
<u>Vaccinium cespitosum</u> var <u>paludicola</u>	199
 PART FOUR: Potential Sensitive Vascular Plant Taxa.....	 201
 PART FIVE: Documented Rare Vascular Plant Occurrences, by Forest and Ranger District.....	 221
 PART SIX: Taxa No Longer Included for Consideration for Sensitive Species Designation.....	 229
 PART SEVEN: Distribution Maps for Rarest Taxa.....	 235
 APPENDIX : Alphabetized List of All Taxa Treated in Report....	 271

INTRODUCTION

On January 3, 1990, The Nature Conservancy's Alaska Natural Heritage Program (AKNHP) initiated a Challenge Cost-Share project with the Alaska Region of the Forest Service's Threatened, Endangered, and Sensitive (TES) Species Program. This cooperative project was designed to enhance the Region's ability to manage for rare plant species and contribute to protecting the biodiversity of natural systems under its jurisdiction. The initial objective was to identify rare vascular plant species on USFS land in Alaska and review their status as candidates for a Sensitive Plant Species List.

As a result of this agreement, in January 1991 AKNHP produced the first in a series of annual reports on the status of the rare vascular plant species of the U.S. Forest Service (USFS) Alaska Region. This supplement is the second report in this series.

The Nature Conservancy

The Nature Conservancy (TNC) is an international nonprofit organization dedicated to the conservation of biological diversity. The mission has been given a high priority by federal, state, and private resource managers and scientists who share a common land use philosophy. It is the biodiversity conservation ethic that underpins TNC AKNHP and the USFS TES species program to implement protection, management, and recovery strategies.

Natural Heritage Programs constitute the science arm of TNC and are responsible for identification of the elements of natural diversity: plants, animals, plant communities, and critical natural features. Program inventory priorities are primarily driven by the element's abundance, distribution, and threat status, with an emphasis on rarity or endangerment. This methodology has become standardized within 83 national and international programs and requires data acquisition, interpretation, and management by a trained staff of scientists.

Species and plant community information is entered into a centralized AKNHP database in a stepwise fashion initiated by an extensive data collection process. A comprehensive document and archive search results in retrieval of primary and secondary literature, as well as notes, collections, and unpublished reports within and outside of Alaska. The database files are systematically populated according to subject and topic themes, such as ranking, taxonomy, biology, management, location, reference source, etc. The files are quality controlled at several stages of processing and relationally linked in a

codified system. All location information is cross referenced to topographic maps and recorded as latitude/longitude and UTM zone for GIS-ready export.

U.S. Forest Service

The U.S. Forest Service has developed a strategy to raise its profile as stewards of threatened, endangered, and sensitive species that they consider to represent "the most treasured resources of our nation's natural heritage." As a first step, a national task force recommended that the USFS take an active role in species listing and recovery planning. These efforts have strengthened the agency commitment to conserving biodiversity by establishing a proactive, integrated strategy for TES species program development.

The USFS has encouraged Challenge Cost-Share cooperative projects that provide unmistakable benefits to biodiversity management by expanding the scope of TES species initiatives. Private and public resource managers involved in these partnership opportunities have offered broadened levels of expertise and substantive support for policy development and planning. The TNC/USFS Sensitive Plant Species project is a mutual investment in attaining the most comprehensive understanding of rare plant species in the Region and, inasmuch, it lays the cornerstone for long-term cooperation.

Sensitive Species Inventory

Sensitive species are those plants and animals whose population viability has been formally acknowledged by the Regional Forester as warranting concern within the Forest. These include species with populations and/or habitats that are reduced, restricted, or vulnerable to resource development, or, species requiring special management to maintain population viability. The USFS goal for sensitive species management is to avoid extirpation of species by maintaining viable populations within each Forest.

The 33 high priority rare plant taxa that have been proposed here as sensitive species represent a continuing comprehensive review of existing information. Initial research has produced another 111 taxa in need of further review because they represent species rare in Alaska, though globally more common. The inventory of these species will continue in FY92. Also, field work begun in FY91 will continue in FY92 for verifying questionable occurrences and surveying sites with a high likelihood of rare species occurrence. Data gaps abound and, therefore, a continual effort will be made to clarify all species accounts that are inconsistent, disjunct, historical, and/or taxonomically questionable.

Sources of Information

The information on which this report is based comes primarily from three related sources: literature, herbaria, and field studies. A thorough survey of the scientific literature was initiated at the outset of the current project and remains an on-going endeavor. While there is very little published information specific to the rare plant species of Southeast and Southcentral Alaska, there are several important primary sources.

These sources consist of the state-wide treatments by Murray (1980) and Murray and Lipkin (1987), and in-house USFS reports by Muller (1981, 1989) and by Juday, et al. (1988). In addition, several published floras (Hultén, 1941, 1967, 1968, 1973; Welsh, 1974; Calder and Taylor, 1968; Hall and Alaback, 1992; and Hitchcock, et al., 1955) provide taxonomic and general distributional information on the rare plant taxa of the area. Other treatments of selected taxa (e.g., Argus, 1974) and floristic surveys of specific regions in Southcentral and Southeast Alaska and nearby areas of British Columbia and Yukon Territory of Canada (e.g., Jacques, 1973) add to the information base.

Most information in the literature is based on specimens housed in local and regional herbaria. The major in-state repositories include the herbarium of the University of Alaska Museum, the Juneau Botanical Club collection and Juneau Forestry Sciences Laboratory herbarium, and the Forest Service district herbaria (most notably, the Sitka Ranger District herbarium, curated by Forest Service botanist Mary Clay Muller). In addition to these local herbaria, several herbaria outside the state provide important clues in the search for the presence and location of rare plants on USFS lands in Alaska. These herbaria include those of the University of Washington, University of British Columbia, the Royal Provincial Museum of British Columbia, the U.S. National Herbarium, the National Herbarium of Canada, and the Vascular Plant Herbarium of the Biosystematics Research Institute of Agriculture Canada. (Other important collections not yet visited include the Gray Herbarium, the herbarium of Brigham Young University, and the herbarium of the Swedish Museum of Natural History). While the collections of all the above institutions provide much information, the majority of the material (except for several Forest Service District herbaria) was at least thirty years old. There has been relatively little recent collecting of plant specimens in either Southcentral or Southeast Alaska. This is particularly true of the alpine habitats of the region, where many of the rarer taxa are known to occur.

During the summer of 1991, AKNHP botanist John DeLapp and USFS Regional Botanist Mary Muller conducted several field surveys on the Tongass and Chugach National Forests. AKNHP

ecologist Michael Shephard and Carolyn Parker of the University of Alaska Museum Herbarium also conducted surveys for rare plants in the Yakutat area. New information on the distribution, abundance, and habitat of rare plant taxa was gathered and incorporated into the AKNHP database. These rare plant surveys were conducted on the following Ranger Districts:

Chugach National Forest:

Glacier Ranger District (DeLapp)
Seward Ranger District (DeLapp)

Tongass National Forest:

Hoonah Ranger District (DeLapp)
Ketchikan Ranger District (Muller)
Misty Fiords National Monument (DeLapp)
Petersburg Ranger District (Muller)
Sitka Ranger District (Muller)
Yakutat Ranger District (DeLapp, Muller,
Parker, and Shephard)

Mapping Precision

The reliance on historic plant collections from remote roadless areas limits the utility of some of the locational information obtained in our study. While most recent collections of plant specimens include good directions (providing for accurate relocation and mapping of rare plant occurrences) the locational information accompanying most of the older specimens is very general. The rare plant occurrences based on these historic collections need relocation and field inventory.

Ranking of Species

The Alaska Natural Heritage Program uses a well defined and structured system of protocols in defining the rareness of plant (and animal) species or "elements." An **element** is considered as an "element of natural diversity," that is, any plant or animal taxon or plant community or natural feature. In this report, the term element can be considered synonymous with plant species or taxon. Species are ranked on the basis of their global and state rareness (or abundance). Within this report, taxa referred to as "high ranked species" are those taxa which are rarest on a scale of 1-5, from rare to abundant. These rankings are presented in the following tables:

Alaska Natural Heritage Program Rare Species Global Rankings

G1:Critically imperiled globally.

G2:Imperiled globally.

G3: Either very rare and local throughout its range or found locally in a restricted range.
G4: Apparently secure globally.
G5: Demonstrably secure globally.
G#Q: Taxonomically questionable.
G#T#: Global rank of species and global rank of the described variety or subspecies of the species.
G#G#: Global rank of species uncertain, best described as a range between the two ranks.

Alaska Natural Heritage Program Rare Species State Rankings

S1: Critically imperiled in state because of extreme rarity or because of some factor(s) making it especially vulnerable to extirpation from the state.
S2: Imperiled in state because of rarity or because of some factor(s) making it very vulnerable to extirpation from the state.
S3: Rare or uncommon in the state.
S4: Apparently secure in state, with many occurrences.
S5: Demonstrably secure in state, with many occurrences.
SR#: Reported from the state, but not yet verified.
SP: Occurring in nearby state or province; not yet reported in state, but probably will be encountered with further inventory.
S#S#: State rank of species uncertain, best described as a range between the two ranks.

There are 191 rare vascular plant taxa treated in the present report. Of these species, 144 are documented from USFS Alaska Region lands and 47 other species are known to occur in areas adjacent to USFS lands. These 47 species not yet documented from USFS lands (but expected there) are included in a "**watch list**" of rare vascular plant taxa.

Of those 144 taxa documented from USFS lands, 33 taxa are globally rare and may be in danger of extirpation on USFS land (based on current knowledge). Ranked at G1, G2, or G3, these 33 taxa are documented from USFS land and, therefore, are recommended by AKNHP for sensitive species designation.

In addition, there are 111 species ranked G4 or G5 that are globally more common but rare on USFS lands in Alaska and possibly vulnerable to extirpation there. These are listed here as "Potential Vascular Sensitive Plant Taxa."

Alaska Natural Heritage Program Sensitive Species Recommendations

The status of the USFS sensitive species designation is currently undergoing review on a national scale. Forest Service

Manual wording in the definition of "sensitive species" is under revision. For the purposes of this report, the AKNHP is following the general consensus (in conversations with Regional and Washington Office staff) in taking the designation "sensitive" to include those species with a TNC global rank of 1, 2, or 3 (as defined above). Whether the new sensitive species concept closely follows this definition remains to be seen.

In this report, AKNHP is putting forward a list of thirty-three vascular plant taxa for USFS consideration and review for sensitive species designation. It is this information with which Region Ten staff may make an informed decision in recommending taxa for sensitive species designation by the Regional Forester.

The remaining taxa treated in this report (potential sensitive species and watch list species) are described here in order to provide Region Ten staff more complete information on other rare taxa currently not meeting the above criteria for sensitive species designation. These species may be of some management concern.

The global ranks of all the recommended, potential, and watch listed species are presented in the following table. Where a species' rank consists of a range of ranks (e.g., G3G4), that species is included in the higher rank (lower number).

Rare Plants of the Alaska Region of the U.S. Forest Service

Number of Species by Global Rank

<u>Global Rank</u>	<u>USFS Land</u>		<u>Watch List</u>	<u>Total</u>
	<u>Sensitive Species</u>	<u>Recommended Potential</u>		
G1 or T1	4	0	6	9
G2 or T2	16	0	8	24
G3 or T3	13	0	9	23
G4 or T4	0	25	6	31
G5 or T5	0	86	18	104
TOTAL	33	111	47	191

Nomenclature

Plant nomenclature in this report follows that of the University of Alaska at Fairbanks Herbarium and its Northern Plant Documentation Center Database (D.F. Murray, pers. com.).

Organization of the Report

In this report, the rare plant species of the Alaska Region of the US Forest Service are listed by global rank in **Part One**, "Rare Vascular Plant Taxa by Rank." Also included in Part One are the same rare plant species listed separately for the Chugach and Tongass National Forests.

Part Two, "Watch List of Rare Vascular Plant Taxa by Rank," consists of a list of those rare taxa that are documented from areas adjacent to USFS land in Alaska. As more thorough botanical inventory of the Forests proceeds, there is a good chance that these species will be discovered there.

The rare species of Southcentral and Southeast Alaska receive differing treatments, depending on their global rank and local distribution. The highest priority taxa (species with a global rank of 1, 2, or 3) receive a more detailed treatment than the more globally common species with a global rank of 4 or 5.

Part Three, "Species Descriptions," consists of detailed descriptions of the 33 globally and locally rare species (global ranks 1, 2, or 3) documented on the Chugach or Tongass. The descriptions in this section include species taxonomy; species ranking according to rareness; species distribution and abundance; species information needs; species protection status and needs; documented occurrences; and literature citations on which the information is based.

In **Part Four**, entitled "Potential Sensitive Vascular Plant Taxa," those 111 species that are globally more common (with a global rank of 4 or 5) but that are rare on the Tongass or Chugach National Forests and possibly in danger of extirpation are listed.

Part Five, "Documented Rare Vascular Plant Occurrences," consists of a list of species by the Forest and Ranger District on which they are documented to occur.

Part Six, "Taxa dropped from consideration," consists of those species included in the list of rare plants treated in the Alaska Natural Heritage Program's 1991 report on the Rare Vascular Plant Taxa of Region Ten" but have been dropped from consideration due to their questionable taxonomic status. These

taxa are listed and the reasons for dropping them from our list are stated.

Part Seven, "Distribution maps for rarest taxa," consists of a series of range maps for each of the thirty-three taxa described in Part Three. The reported regional distribution for each species is plotted on a map of Alaska and its neighboring territories. The reported global distribution for each species is plotted on a circumpolar map.

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PART ONE: RARE PLANT TAXA BY RANK

The rare vascular plant taxa of the USFS Alaska Region are listed by AKNHP global rank, as defined in the introduction. Three lists are presented here: an all-inclusive list of the rare plant species of the entire USFS Alaska Region followed by separate lists of the rare species of the Chugach National Forest and the rare species of the Tongass National Forest. Where a species' global rank consists of a range of ranks (e.g., Romanzoffia unalaschcensis - G2G3), that species is included in the grouping of the higher rank. Alaska state rankings are presented for all taxa as well. Where a listed species is classed as having many occurrences within the state (a state rank of S4 or S5) that species may be common elsewhere in Alaska, but is uncommon to rare on the Alaska National Forests.

Rare Vascular Plant Taxa by Rank

USFS ALASKA REGION

	<u>Global</u> <u>Rank</u>	<u>State</u> <u>Rank</u>
Global Rank 1		
<u>Arnica lessingii</u> ssp <u>norbergii</u>	G5T1Q	S1
<u>Castilleja chrymactis</u>	G1Q	S1
<u>Draba kananaskis</u>	G1	S1
<u>Isoetes truncata</u>	G1G2Q	S1
Global Rank 2		
<u>Androsace alaskana</u>	G2G3	S2S3
<u>Aphragmus escholtzianus</u>	G2G3	S2S3
<u>Carex lenticularis</u> var <u>dolia</u>	G5T2	S2
<u>Dodecatheon pulchellum</u> ssp <u>alaskanum</u>	G5T2Q	S2
<u>Draba borealis</u> var <u>maxima</u>	G5T2Q	S2
<u>Draba ruaxes</u>	G2	S2
<u>Gentianella propinqua</u> ssp <u>aleutica</u>	G5T2T4	S2S4
<u>Platanthera chorisiana</u>	G2G3	S2
<u>Platanthera gracilis</u>	G2Q	S2
<u>Puccinellia glabra</u>	G2Q	S2
<u>Puccinellia kamtschatica</u>	G2Q	S2
<u>Ranunculus orthorhynchus</u> var <u>alascensis</u>	G5T2Q	S2
<u>Romanzoffia unalascensis</u>	G2G3	S2S3
<u>Salix reticulata</u> ssp <u>glabelllicarpa</u>	G5T2	S1
<u>Stellaria ruscifolia</u> ssp <u>aleutica</u>	G4T2T3	S2S3
<u>Vaccinium cespitosum</u> var <u>paludicola</u>	G5T2	S2
Global Rank 3		
<u>Atriplex alaskensis</u>	G3G4Q	S3S4
<u>Cirsium edule</u>	G3	S1
<u>Draba kamtschatica</u>	G3Q	S2
<u>Glyceria leptostachya</u>	G3	S1S2
<u>Hymenophyllum wrightii</u>	G3G4	S1
<u>Ligusticum calderi</u>	G3	S1
<u>Papaver alboroseum</u>	G3	S2S3
<u>Phyllospadix serrulatus</u>	G3	S2
<u>Poa laxiflora</u>	G3	S2
<u>Poa turneri</u>	G3Q	S3
<u>Polystichum setigerum</u>	G3	S2
<u>Salix setchelliana</u>	G3	S2S3
<u>Senecio moresbiensis</u>	G3	S1

Part One

USFS ALASKA REGION

	<u>Global</u> <u>Rank</u>	<u>State</u> <u>Rank</u>
Global Rank 4		
<u>Abies amabilis</u>	G4	S3
<u>Agoseris glauca</u>	G4G5	S1
<u>Carex preslii</u>	G4	S1
<u>Carex ramenskii</u>	G4Q	S4
<u>Castilleja miniata</u>	G4G5	S3
<u>Chamaecyparis nootkatensis</u>	G4	S4
<u>Crataegus douglasii</u> var <u>douglasii</u>	G4T4	S1S2
<u>Cypripedium montanum</u>	G4G5	S1
<u>Cystopteris montana</u>	G4	S3
<u>Dactylorhiza aristata</u>	G4	S4
<u>Eleocharis kamtschatica</u>	G4	S2
<u>Euphrasia mollis</u>	G4	S4
<u>Lathyrus ochroleucus</u>	G4G5	S1
<u>Lonicera involucrata</u>	G4G5	S2
<u>Luzula campestris</u> var <u>congesta</u>	G5T4Q	S1
<u>Pedicularis macrodonta</u>	G4	S3
<u>Penstemon serrulatus</u>	G4	S1
<u>Phacelia franklinii</u>	G4	S2S3
<u>Phyllodoce empetriformis</u>	G4	S1S2
<u>Poa occidentalis</u>	G4	S1
<u>Satureja douglasii</u>	G4	S1
<u>Scirpus subterminalis</u>	G4G5	S1
<u>Stellaria crassifolia</u>	G4	S4
<u>Taxus brevifolia</u>	G4	S2
<u>Veronica wormskjoldii</u> var <u>stelleri</u>	G4G5T4Q	S4

Global Rank 5

<u>Abies lasiocarpa</u>	G5	S4
<u>Agoseris aurantiaca</u>	G5	S1
<u>Agrostis thurberiana</u>	G5	S2
<u>Androsace chamaejasme</u> ssp <u>lehmanniana</u>	G5T5	S5
<u>Arctostaphylos alpina</u>	G5	S5
<u>Armeria maritima</u>	G5	S4
<u>Arnica diversifolia</u>	G5	S1
<u>Asplenium trichomanes</u>	G5	S1
<u>Betula papyrifera</u> var <u>commutata</u>	G5T5	S2
<u>Botrychium virginianum</u> var <u>europaeum</u>	G5T5	S1S2
<u>Brasenia schreberi</u>	G5	S1
<u>Caltha biflora</u>	G5	S2
<u>Calypso bulbosa</u>	G5	S4
<u>Campanula lasiocarpa</u>	G5	S5
<u>Campanula scouleri</u>	G5	S1

Cardamine angulata

G5

S3

Rare Vascular Plant Taxa by Rank

USFS ALASKA REGION

	<u>Global</u> <u>Rank</u>	<u>State</u> <u>Rank</u>
Global Rank 5 (continued)		
<u>Cardamine pratensis</u> var <u>angustifolia</u>	G5T5	S5
<u>Carex athrostachya</u>	G5	S1S2
<u>Carex atratiformis</u> ssp <u>raymondii</u>	G5T5	S2
<u>Carex bebbii</u>	G5	S1
<u>Carex interior</u>	G5	S1
<u>Carex stipata</u>	G5	S1
<u>Chimaphila umbellata</u> ssp <u>occidentalis</u>	G5T5	S3
<u>Cirsium foliosum</u>	G5	S1
<u>Crassula aquatica</u>	G5	S3
<u>Crepis elegans</u>	G5	S5
<u>Cryptogramma stelleri</u>	G5	S2S3
<u>Cypripedium calceolus</u> ssp <u>parviflorum</u>	G5T5	S2
<u>Danthonia spicata</u>	G5	S1
<u>Diapensia lapponica</u> var <u>obovata</u>	G5T5	S5
<u>Dryas integrifolia</u>	G5	S5
<u>Eriophorum viridicarinatum</u>	G5	S2
<u>Galium kamtschaticum</u>	G5	S2
<u>Geocaulon lividum</u>	G5	S5
<u>Geum aleppicum</u> var <u>strictum</u>	G5T5	S1S2
<u>Glehnia littoralis</u> ssp <u>leiocarpa</u>	G5T5	S3
<u>Glyceria striata</u> var <u>stricta</u>	G5T5Q	S2
<u>Juncus articulatus</u>	G5	S1
<u>Juncus nodosus</u>	G5	S2
<u>Lactuca biennis</u>	G5	S1
<u>Lathyrus venosus</u> var <u>intonsus</u>	G5T5	S1
<u>Limosella aquatica</u>	G5	S3
<u>Listera convallarioides</u>	G5	S1
<u>Lupinus lepidus</u>	G5	S1
<u>Lycopodium inundatum</u>	G5	S3
<u>Lycopus uniflorus</u>	G5	S3
<u>Lysimachia thyrsoiflora</u>	G5	S4
<u>Malaxis monophyllos</u> var <u>monophyllos</u>	G5T5	S3S4
<u>Malaxis paludosa</u>	G5	S2
<u>Melica subulata</u>	G5	S2
<u>Mimulus lewisii</u>	G5	S1
<u>Mitella nuda</u>	G5	S2
<u>Mitella trifida</u>	G5	S2
<u>Monotropa uniflora</u>	G5	S1S2
<u>Myriophyllum verticillatum</u>	G5	S3
<u>Nymphaea tetragona</u> ssp <u>leibergii</u>	G5T5Q	S5
<u>Physocarpus capitatus</u>	G5	S2S3
<u>Pinus contorta</u> var <u>latifolia</u>	G5T5	S3
<u>Piperia unalascensis</u>	G5	S2
<u>Plagiobothrys cognatus</u>	G5Q	S5

Platanthera orbiculata

G5?

S1

Part One

USFS ALASKA REGION

	<u>Global</u> <u>Rank</u>	<u>State</u> <u>Rank</u>
Global Rank 5 (continued)		
<u>Poa ampla</u>	G5	S1
<u>Poa douglasii</u> ssp <u>macrantha</u>	G5T5	S1
<u>Poa leptocoma</u>	G5	S2
<u>Poa scabrella</u>	G5	S1
<u>Primula eximia</u>	G5	S4
<u>Rhododendron camtschaticum</u> ssp <u>camtschaticum</u>	G5T5	S5
<u>Rorippa obtusa</u>	G5	S1
<u>Salicornia europaea</u>	G5NE	S2
<u>Salix hookeriana</u>	G5	S2
<u>Salix prolixa</u>	G5	S1
<u>Saussurea americana</u>	G5	S2
<u>Scirpus rufus</u>	G5	S1
<u>Sedum lanceolatum</u>	G5	S1S2
<u>Sedum oreganum</u>	G5	S3
<u>Smilacina racemosa</u>	G5	S2
<u>Smilacina stellata</u>	G5	S2
<u>Spiraea douglasii</u>	G5	S2
<u>Stachys mexicana</u>	G5	S1
<u>Symphoricarpos albus</u> var <u>laevigatus</u>	G5T5Q	S2
<u>Thuja plicata</u>	G5	S3
<u>Trifolium wormskjoldii</u>	G5	S1
<u>Vaccinium oxycoccos</u>	G5	S1
<u>Vicia americana</u>	G5	S2
<u>Viola selkirkii</u>	G5?	S3
<u>Viola sempervirens</u>	G5	S1

Rare Vascular Plant Taxa by Rank

CHUGACH NATIONAL FOREST

	<u>Global Rank</u>	<u>State Rank</u>
Global Rank 1		
<u>Arnica lessingii</u> ssp <u>norbergii</u>	G5T1Q	S1
<u>Draba kananaskis</u>	G1	S1
<u>Isoetes truncata</u>	G1G2Q	S1
Global Rank 2		
<u>Androsace alaskana</u>	G2G3	S2S3
<u>Aphragmus escholtzianus</u>	G2G3	S2S3
<u>Carex lenticularis</u> var <u>dolia</u>	G5T2	S2
<u>Platanthera chorisiana</u>	G2G3	S2
<u>Puccinellia glabra</u>	G2Q	S2
<u>Romanzoff unalaschcensis</u>	G2G3	
S2S3 <u>Vaccinium cespitosum</u> var <u>paludicola</u>	G5T2	
S2		
Global Rank 3		
<u>Atriplex alaskensis</u>	G3G4Q	S3S4
<u>Draba kamschatica</u>	G3Q	S2
<u>Papaver alboroseum</u>	G3	S2S3
<u>Phyllospadix serrulatus</u>	G3	S2
<u>Poa turneri</u>	G3Q	S3
Global Rank 4		
<u>Carex preslii</u>	G4	S1
<u>Carex ramenskii</u>	G4Q	S4
<u>Chamaecyparis nootkatensis</u>	G4	S4
<u>Dactylorhiza aristata</u>	G4	S4
<u>Eleocharis kamschatica</u>	G4	S2
<u>Euphrasia mollis</u>	G4	S4
<u>Lonicera involucrata</u>	G4G5	S2
<u>Pedicularis macrodonta</u>	G4	S3
<u>Poa occidentalis</u>	G4	S1
<u>Stellaria crassifolia</u>	G4	S4
<u>Veronica wormskjoldii</u> var <u>stelleri</u>	G4G5T4Q	S4

Part One

CHUGACH NATIONAL FOREST

	<u>Global Rank</u>	<u>State Rank</u>
Global Rank 5		
<u>Agrostis thurberiana</u>	G5	S2
<u>Arnica diversifolia</u>	G5	S1
<u>Botrychium virginianum</u> var <u>europaeum</u>	G5T5	S1S2
<u>Campanula lasiocarpa</u>	G5	S5
<u>Carex athrostachya</u>	G5	S1S2
<u>Carex interior</u>	G5	S1
<u>Carex stipata</u>	G5	S1
<u>Crassula aquatica</u>	G5	S3
<u>Eriophorum viridicarinaratum</u>	G5	S2
<u>Geocaulon lividum</u>	G5	S5
<u>Geum aleppicum</u> var <u>strictum</u>	G5T5	
S1S2 <u>Glehnia littoralis</u> ssp <u>leiocarpa</u>		G5T5
S3 <u>Glyceria striata</u> var <u>stricta</u>		G5T5Q
S2 <u>Limosella aquatica</u>		G5
S3 <u>Lysimachia thyrsiflora</u>		G5
S4 <u>Piperia unalascensis</u>		G5
S2 <u>Poa douglasii</u> ssp <u>macrantha</u>		G5T5
S1 <u>Primula eximia</u>		G5
S4		
<u>Rhododendron camtschaticum</u> ssp <u>camtschaticum</u>	G5T5	S5
<u>Salicornia europaea</u>	G5NE	S2
<u>Salix hookeriana</u>	G5	S2
<u>Scirpus rufus</u>	G5	S1
<u>Smilacina stellata</u>	G5	S2
<u>Viola selkirkii</u>	G5?	S3

Rare Vascular Plant Taxa by Rank

TONGASS NATIONAL FOREST

	<u>Global Rank</u>	<u>State Rank</u>
Global Rank 1		
<u>Arnica lessingii</u> ssp <u>norbergii</u>	G5T1Q	S1
<u>Castilleja chrymactis</u>	G1Q	S1
<u>Isoetes truncata</u>	G1G2Q	S1
Global Rank 2		
<u>Carex lenticularis</u> var <u>dolia</u>	G5T2	S2
<u>Dodecatheon pulchellum</u> ssp <u>alaskanum</u>	G5T2Q	S2
<u>Draba borealis</u> var <u>maxima</u>	G5T2Q	S2
<u>Draba ruaxes</u>	G2	S2
<u>Gentianella propinqua</u> ssp <u>aleutica</u>	G5T2T4	
S2S4 <u>Platanthera chorisiana</u>		G2G3
S2 <u>Platanthera gracilis</u>		G2Q
S2 <u>Puccinellia kamtschatica</u>		G2Q
S2 <u>Ranunculus orthorhynchus</u> var <u>alascensis</u>		G5T2Q
S2 <u>Romanzoffia unalascensis</u>		G2G3
S2S3 <u>Salix reticulata</u> ssp <u>glabelllicarpa</u>		G5T2
S1 <u>Stellaria ruscifolia</u> ssp <u>aleutica</u>		
G4T2T3 S2S3		
Global Rank 3		
<u>Atriplex alaskensis</u>	G3G4Q	S3S4
<u>Cirsium edule</u>	G3	S1
<u>Glyceria leptostachya</u>	G3	S1S2
<u>Hymenophyllum wrightii</u>	G3G4	S1
<u>Ligusticum calderi</u>	G3	S1
<u>Phyllospadix serrulatus</u>	G3	S2
<u>Poa laxiflora</u>	G3	S2
<u>Polystichum setigerum</u>	G3	S2
<u>Salix setchelliana</u>	G3	
S2S3		
<u>Senecio moresbiensis</u>	G3	S1

Part One

TONGASS NATIONAL FOREST

	<u>Global Rank</u>	<u>State Rank</u>
Global Rank 4		
<u>Abies amabilis</u>	G4	S3
<u>Agoseris glauca</u>	G4G5	S1
<u>Carex preslii</u>	G4	S1
<u>Castilleja miniata</u>	G4G5	S3
<u>Chamaecyparis nootkatensis</u>	G4	S4
<u>Crataegus douglasii</u> var <u>douglasii</u>	G4T4	
S1S2 <u>Cypripedium montanum</u>		G4G5
S1 <u>Cystopteris montana</u>		G4
S3 <u>Eleocharis kamtschatica</u>		G4
S2 <u>Euphrasia mollis</u>		G4
S4 <u>Lathyrus ochroleucus</u>		G4G5
S1 <u>Lonicera involucrata</u>		G4G5
S2 <u>Luzula campestris</u> var <u>congesta</u>		
G5T4Q S1 <u>Pedicularis macrodonta</u>		
G4 S3 <u>Penstemon serrulatus</u>		
G4 S1 <u>Phacelia franklinii</u>		
G4 S2S3 <u>Phyllodoce empetrififormis</u>		
G4 S1S2 <u>Satureja douglasii</u>		
G4 S1 <u>Scirpus subterminalis</u>		
G4G5 S1 <u>Stellaria crassifolia</u>		
G4 S4 <u>Taxus brevifolia</u>		
G4 S2 <u>Veronica wormskjoldii</u> var <u>stelleri</u>		
G4G5T4Q S4		

Global Rank 5

<u>Abies lasiocarpa</u>	G5	S4
<u>Agoseris aurantiaca</u>	G5	S1
<u>Agrostis thurberiana</u>	G5	S2
<u>Androsace chamaejasme</u> ssp <u>lehmanniana</u>	G5T5	S5
<u>Arctostaphylos alpina</u>	G5	S5
<u>Armeria maritima</u>	G5	S4
<u>Asplenium trichomanes</u>	G5	S1
<u>Betula papyrifera</u> var <u>commutata</u>	G5T5	S2
<u>Botrychium virginianum</u> var <u>europaeum</u>	G5T5	
S1S2 <u>Brasenia schreberi</u>		G5
S1 <u>Caltha biflora</u>		G5
S2 <u>Calypto bulbosa</u>		G5
S4 <u>Campanula lasiocarpa</u>		G5
S5		
<u>Campanula scouleri</u>	G5	S1
<u>Cardamine angulata</u>	G5	S3
<u>Cardamine pratensis</u> var <u>angustifolia</u>	G5T5	S5
<u>Carex athrostachya</u>	G5	

S1S2 Carex atriformis ssp raymondii
S2

G5T5

Rare Vascular Plant Taxa by Rank

TONGASS NATIONAL FOREST

	<u>Global</u> Rank	<u>State</u> Rank
<u>Carex bebbii</u>	G5	S1
<u>Carex interior</u>	G5	S1
<u>Carex stipata</u>	G5	S1
<u>Chimaphila umbellata</u> ssp <u>occidentalis</u>	G5T5	S3
<u>Cirsium foliosum</u>	G5	S1
<u>Crassula aquatica</u>	G5	S3
<u>Crepis elegans</u>	G5	S5
<u>Cryptogramma stelleri</u>	G5	
S2S3 <u>Cypripedium calceolus</u> ssp <u>parviflorum</u>		G5T5
S2 <u>Danthonia spicata</u>		G5
S1 <u>Diapensia lapponica</u> var <u>obovata</u>		G5T5
S5 <u>Dryas integrifolia</u>		G5
S5 <u>Galium kamschaticum</u>		G5
S2 <u>Geocaulon lividum</u>		G5
S5 <u>Juncus articulatus</u>		G5
S1 <u>Juncus nodosus</u>		G5
S2 <u>Lactuca biennis</u>		G5
S1 <u>Lathyrus venosus</u> var <u>intonsus</u>		
G5T5 S1 <u>Listera convallarioides</u>		
G5 S1 <u>Lupinus lepidus</u>		
G5 S1 <u>Lycopodium inundatum</u>		
G5 S3 <u>Lycopus uniflorus</u>		
G5 S3 <u>Lysimachia thyrsiflora</u>		
G5 S4 <u>Malaxis monophyllos</u> var <u>monophyllos</u>		
G5T5 S3S4 <u>Malaxis paludosa</u>		
G5 S2 <u>Melica subulata</u>		
G5 S2 <u>Mimulus lewisii</u>		
G5 S1 <u>Mitella nuda</u>		
G5 S2 <u>Mitella trifida</u>		
G5 S2 <u>Monotropa uniflora</u>		
G5 S1S2 <u>Myriophyllum verticillatum</u>		
G5 S3 <u>Nymphaea tetragona</u> ssp <u>leibergii</u>		
G5T5Q S5 <u>Physocarpus capitatus</u>		
G5 S2S3 <u>Pinus contorta</u> var <u>latifolia</u>		
G5T5 S3 <u>Piperia unalascensis</u>		
G5 S2 <u>Plagiobothrys cognatus</u>		
G5Q S5 <u>Platanthera orbiculata</u>		
G5? S1 <u>Poa ampla</u>		
G5 S1 <u>Poa douglasii</u> ssp <u>macrantha</u>		
G5T5 S1 <u>Poa leptocoma</u>		
G5 S2 <u>Poa scabrella</u>		
G5 S1 <u>Primula eximia</u>		
G5 S4		

Rhododendron camtschaticum ssp camtschaticum
Rorippa obtusa

G5T5
G5

S5
S1

Part One

TONGASS NATIONAL FOREST

	<u>Global Rank</u>	<u>State Rank</u>
<u>Salix hookeriana</u>	G5	S2
<u>Salix prolixa</u>	G5	S1
<u>Saussurea americana</u>	G5	S2
<u>Sedum lanceolatum</u>	G5	
S1S2 <u>Sedum oreganum</u>		G5
S3 <u>Smilacina racemosa</u>		G5
S2 <u>Smilacina stellata</u>		G5
S2 <u>Spiraea douglasii</u>		G5
S2 <u>Stachys mexicana</u>		G5
S1 <u>Symphoricarpos albus</u> var <u>laevigatus</u>		G5T5Q
S2 <u>Thuja plicata</u>		G5
S3 <u>Trifolium wormskjoldii</u>		G5
S1 <u>Vaccinium oxycoccos</u>		G5
S1 <u>Vicia americana</u>		G5
S2 <u>Viola selkirkii</u>		
G5? S3 <u>Viola sempervirens</u>		
G5 S1		

PART TWO: WATCH LIST OF RARE VASCULAR PLANT TAXA

Watch list taxa - the rare vascular plant taxa documented from areas adjacent to (but not on) USFS Alaska Region lands - are listed here in Part Two. As in Part One, three lists are presented: an all-inclusive list of the watch listed rare plant species of the entire USFS Alaska Region, followed by separate lists of the watch listed species of the Chugach National Forest and the watch listed species of the Tongass National Forest. Again, global and state ranks are as defined on pages three and four of the introduction (on a scale of 1-5, rare to abundant).

Watch List Rare Vascular Plant Taxa by Rank

USFS ALASKA REGION

	<u>Global Rank</u>	<u>State Rank</u>
Global Rank 1		
<u>Aster yukonensis</u>	G1Q	S1
<u>Castilleja henryae</u>	G1Q	SP
<u>Castilleja villosissima</u>	G1Q	SP
<u>Erigeron mexiae</u>	G1Q	S1
<u>Geum schofieldii</u>	G1	SP
<u>Polystichum kwakiutlii</u>	G1Q	SP

Global Rank 2

<u>Antennaria leuchippii</u>	G2Q	SP
<u>Cassiope lycopodioides</u> ssp <u>crispipilosa</u>	G3?T2	SP
<u>Draba aleutica</u>	G2G3	S3
<u>Phacelia mollis</u>	G2	
S2S3 <u>Saxifraga taylorii</u>		G2
SP <u>Stellaria alaskana</u>		G2
S2 <u>Taraxacum carneocoloratum</u>		G2Q
S1 <u>Thlaspi arcticum</u>		G2G3
S2		

Global Rank 3

<u>Calamagrostis crassiglumis</u>	G3	S1
<u>Carex franklinii</u>	G3G4Q	S2
<u>Carex parryana</u>	G3G4	S1
<u>Cerastium aleuticum</u>	G3	S3
<u>Douglasia laevigata</u> var <u>ciliolata</u>	G3?T3?	SR
<u>Draba stenopetala</u>	G3	S2
<u>Montia bostockii</u>	G3	S3
<u>Poa nevadensis</u>	G3G4	SP
<u>Puccinellia triflora</u>	G3Q	S3

Global Rank 4

<u>Artemisia michauxiana</u>	G4G5	SP
<u>Draba lactea</u>	G4?	S3
<u>Eleocharis nitida</u>	G4	S2
<u>Poa canbyi</u>	G4G5	S1
<u>Salix cascadiensis</u>	G4G5	SP
<u>Thellungiella salsuginea</u>	G4	SP

Part Two

USFS ALASKA REGION

	<u>Global Rank</u>	<u>State Rank</u>
Global Rank 5		
<u>Angelica arguta</u>	G5	SR
<u>Arabis lyallii</u>	G5	SP
<u>Aster brachyactis</u>	G5	SP
<u>Boschniakia hookeri</u>	G5	SP
<u>Catabrosa aquatica</u>	G5	S1
<u>Corispermum hyssopifolium</u>	G5	S3
<u>Epilobium leptophyllum</u>	G5	SP
<u>Iris missouriensis</u>	G5	SP
<u>Lewisia pygmaea</u>	G5	SP
<u>Minuartia biflora</u>	G5	S2
<u>Phacelia sericea</u>	G5	S2
<u>Potentilla hippiana</u>	G5	SP
<u>Rorippa curvisiliqua</u>	G5	S1
<u>Rumex utahensis</u>	G5	SP
<u>Salix planifolia ssp planifolia</u>	G5T5	S1
<u>Sedum divergens</u>	G5	S1
<u>Sisyrinchium montanum</u>	G5	SP
<u>Townsendia hookeri</u>	G5	S1

Watch List Rare Vascular Plant Taxa by Rank

CHUGACH NATIONAL FOREST

	<u>Global Rank</u>	<u>State Rank</u>
Global Rank 2		
<u>Dodecatheon pulchellum</u> ssp <u>alaskanum</u>	G5T2Q	S2
<u>Draba aleutica</u>	G2G3	S3
<u>Draba borealis</u> var <u>maxima</u>	G5T2Q	S2
<u>Draba ruaxes</u>	G2	S2
<u>Gentianella propinqua</u> ssp <u>aleutica</u>	G5T2T4	
S2S4 <u>Puccinellia kamtschatica</u>		G2Q
S2 <u>Stellaria alaskana</u>		G2
S2 <u>Stellaria ruscifolia</u> ssp <u>aleutica</u>		G4T2T3
S2S3 <u>Taraxacum carneocoloratum</u>		G2Q
S1 <u>Thlaspi arcticum</u>		G2G3
S2		
Global Rank 3		
<u>Calamagrostis crassiglumis</u>	G3	S1
<u>Carex parryana</u>	G3G4	S1
<u>Cerastium aleuticum</u>	G3	S3
<u>Douglasia laevigata</u> var <u>ciliolata</u>	G3?T3?	SR
<u>Ligusticum calderi</u>	G3	S1
<u>Puccinellia triflora</u>	G3Q	S3
<u>Salix setchelliana</u>	G3	S2S3
Global Rank 4		
<u>Crataegus douglasii</u> var <u>douglasii</u>	G4T4	S1S2
<u>Cystopteris montana</u>	G4	S3
<u>Draba lactea</u>	G4?	S3
<u>Eleocharis nitida</u>	G4	S2
Global Rank 5		
<u>Abies lasiocarpa</u>	G5	S4
<u>Armeria maritima</u>	G5	S4
<u>Calypto bulbosa</u>	G5	S4
<u>Carex atratififormis</u> ssp <u>raymondii</u>	G5T5	S2
<u>Catabrosa aquatica</u>	G5	S1
<u>Corispermum hyssopifolium</u>	G5	S3

Part Two

CHUGACH NATIONAL FOREST

	<u>Global</u> <u>Rank</u>	<u>State</u> <u>Rank</u>
Global Rank 5 (continued)		
<u>Crepis elegans</u>	G5	S5
<u>Galium kamschaticum</u>	G5	S2
<u>Lewisia pygmaea</u>	G5	SP
<u>Malaxis monophyllos</u> var <u>monophyllos</u>	G5T5	S3S4
<u>Malaxis paludosa</u>	G5	S2
<u>Minuartia biflora</u>	G5	S2
<u>Nymphaea tetragona</u> ssp <u>leibergii</u>	G5T5Q	S5
<u>Plagiobothrys cognatus</u>	G5Q	S5
<u>Poa leptocoma</u>	G5	S2

Watch List Rare Vascular Plant Taxa by Rank

TONGASS NATIONAL FOREST

	<u>Global Rank</u>	<u>State Rank</u>
Global Rank 1		
<u>Aster yukonensis</u>	G1Q	S1
<u>Castilleja henryae</u>	G1Q	SP
<u>Castilleja villosissima</u>	G1Q	SP
<u>Erigeron mexiae</u>	G1Q	S1
<u>Geum schofieldii</u>	G1	SP
<u>Polystichum kwakiutlii</u>	G1Q	SP

Global Rank 2

<u>Antennaria leuchippii</u>	G2Q	SP
<u>Cassiope lycopodioides</u> ssp <u>crispapilosa</u>	G3?T2	SP
<u>Phacelia mollis</u>	G2	
S2S3 <u>Saxifraga taylorii</u>		G2
SP <u>Stellaria alaskana</u>		G2
S2 <u>Thlaspi arcticum</u>		G2G3
S2		

Global Rank 3

<u>Calamagrostis crassiglumis</u>	G3	S1
<u>Carex franklinii</u>	G3G4Q	S2
<u>Douglasia laevigata</u> var <u>ciliolata</u>	G3?T3?	SR
<u>Draba stenopetala</u>	G3	S2
<u>Montia bostockii</u>	G3	S3
<u>Papaver alboroseum</u>	G3	S2S3
<u>Poa nevadensis</u>	G3G4	SP

Global Rank 4

<u>Artemisia michauxiana</u>	G4G5	SP
<u>Draba lactea</u>	G4?	S3
<u>Poa canbyi</u>	G4G5	S1
<u>Salix cascadiensis</u>	G4G5	SP
<u>Thellungiella salsuginea</u>	G4	SP

Global Rank 5

Angelica arguta
Arabis lyallii

G5
G5

SR
SP

Part Two

TONGASS NATIONAL FOREST

	<u>Global Rank</u>	<u>State Rank</u>
Global Rank 5 (continued)		
<u>Aster brachyactis</u>	G5	SP
<u>Boschniakia hookeri</u>	G5	SP
<u>Epilobium leptophyllum</u>	G5	SP
<u>Eriophorum viridicarinatum</u>	G5	S2
<u>Geum aleppicum</u> var <u>strictum</u>	G5T5	
S1S2 <u>Glyceria striata</u> var <u>stricta</u>		G5T5Q
S2 <u>Iris missouriensis</u>		G5
SP <u>Lewisia pygmaea</u>		G5
SP <u>Limosella aquatica</u>		G5
S3 <u>Minuartia biflora</u>		G5
S2		
<u>Phacelia sericea</u>	G5	S2
<u>Potentilla hippiana</u>	G5	SP
<u>Rorippa curvisiliqua</u>	G5	S1
<u>Rumex utahensis</u>	G5	SP
<u>Salix planifolia</u> ssp <u>planifolia</u>	G5T5	S1
<u>Sedum divergens</u>	G5	S1
<u>Sisyrinchium montanum</u>	G5	SP
<u>Townsendia hookeri</u>	G5	S1

PART THREE: SPECIES DESCRIPTIONS

The 33 proposed sensitive vascular plant taxa (G1, G2, and G3 ranked taxa documented from USFS Alaska Region lands) are described in detail here in Part Three. Each description is consists of seven categories:

- 1) Taxonomy - General comments on the classification of the taxon, with a description of those species with which the taxon might be confused, and with an enumeration of the diagnostic characteristics of the taxon.
- 2) Ranking - Ranking according to global and Alaskan rareness (as described in the introduction) with justification of those ranks.
- 3) Distribution and abundance - A description of the global and state range, abundance, and habitat of the taxon.
- 4) Information needs - Global and state inventory needs for the taxon.
- 5) Protection - Protection status and global and state protection needs for the taxon.
- 6) Documented occurrences on or near Alaska Forest Service lands - Documentation of each taxon occurrence included in the AKNHP database. This documentation includes site name, location, mapping precision, directions to the site, general description and elevation of the site, date the taxon in question was last observed at the site, herbarium specimens or literature on which the reported occurrence is based, and Alaska National Forest on which the occurrence is located.

Within the "Specimens" field the following information is recorded: year of collection (when known), collector, collection number, and herbarium in which the specimen resides. The standard abbreviations of the herbaria are used where possible. These abbreviations are:

ALA:Herbarium, University of Alaska Fairbanks Museum, AK.

CAN:Herbarium, Canada Museum of Nature, Ottawa, ONT.

DAO:Vascular Plant Herbarium, Biosystematics Research Institute, Agriculture Canada, Ottawa, ONT.

GH:Gray Herbarium, Harvard Univ., Cambridge, MA.

JUNEAU BOT. CLUB HERB.: Juneau Botanical Club Herbarium, housed in Juneau Museum, Juneau, AK.

JUNEAU FSL: Herbarium of the USFS Juneau Forestry Sciences Laboratory, Juneau, AK.

NY:Herbarium, New York Botanical Garden, New York, NY.

S:Herbarium, Swedish Museum of Natural History, Stockholm, Sweden.

SITKA FS: Herbarium of the USFS Sitka Ranger District, Sitka, AK.

UBC:Herbarium, University of British Columbia, Vancouver, BC.

UCB:Herbarium, University of California, Berkeley, CA.

US:United States National Herbarium, Washington, DC.

V:Herbarium, Royal Provincial Museum of British Columbia, Victoria, BC.

WTU:Herbarium, University of Washington, Seattle, WA.

7) Literature - A bibliography of literature pertinent to the taxon as it occurs in Alaska.

SPECIES DESCRIPTION
ANDROSACE ALASKANA

TAXONOMY:

Scientific name: Androsace alaskana Coville & Standley ex Hult.

Common name: ALASKA ROCK-JASMINE

Family: PRIMULACEAE

Synonyms: Douglasia alaskana (Cov. & Stand. ex Hult.) S. Kelso

Taxonomic comments:

Recognized as a distinct species by Kartesz, 1989. Kelso (in prep.) has transferred this taxon to the genus Douglasia.

Diagnostic characteristics:

Corolla about as long as calyx; scapes not villous; rosette leaves sessile; umbels 1-3 flowered, scapes resembling a sessile umbel. (Hultén, 1968)

Similar species:

Resembles other species of Androsace, from which it is distinguished by its few-flowered inflorescence, resembling a sessile umbel.

RANKING:

Global rank: G2G3

Global ranking comments:

Approximately 20 occurrences known over moderate geographic range with more likely as additional alpine areas within its range are explored. Not reported as abundant at any sites, and typically found as isolated plants.

State rank: S2S3

State ranking comments

Twelve to 15 occurrences known over moderate geographic range with more likely as additional alpine areas within its range are explored. Not reported as abundant at any sites, and typically found as isolated plants.

DISTRIBUTION AND ABUNDANCE:

Range:

Global range comments:

Endemic to southern Alaska and southwestern Yukon Territory.

State range comments:

Limited to southern Alaska to Alaska Peninsula.

Abundance:

Global abundance comments:

Global numbers of individuals unknown. Inventory needed.

State abundance comments:

State numbers of individuals unknown. Inventory needed.

Habitat:

Global habitat:

Sandy soil in rocky alpine sites.

State habitat:

On sandy soil in rocky alpine habitats of southern Alaska.

INFORMATION NEEDS:

Inventory needs:

Global inventory needs:

Additional inventory needed in all parts of its known range.

State inventory needs:

Inventory needed in alpine habitats of southern Alaska and Alaska Peninsula.

PROTECTION:

Status:

No populations known to receive special protection.

Needs:

Global protection needs:

Current protection needs unknown. Inventory needed.

State protection needs:

Protect known occurrences unless further inventory proves the species more widespread or common.

DOCUMENTED OCCURRENCES ON OR NEAR ALASKA FOREST SERVICE LANDS:

Occurrence data not yet entered into database. One occurrence reported from Seward Ranger District, Chugach National Forest. For current detailed locational information on this species, contact the Alaska Natural Heritage Program.

LITERATURE:

Hultén, E. 1941-1950. Flora of Alaska and Yukon. 1-10. Lunds Univ. Arsskr. N.F. Avd. 2, Vol. 37-46. 1,902 p.

Hultén, E. 1968. Flora of Alaska and neighboring territories. Stanford University Press, Stanford, Ca. 1008 p.

Kartesz, J.T. 1989. Working draft of vascular plants of Alaska. The Nature Conservancy, Arlington, Virginia. 71 p.

Kelso, S. In prep. Conspectus of the genus Douglasia (Primulaceae) with special reference to Douglasia alaskana (Cov. & Stand. ex Hult.) S. Kelso and its relationship to the genus Androsace.

SPECIES DESCRIPTION
APHRAGMUS ESCHOLTZIANUS

TAXONOMY:

Scientific name: Aphragmus escholtzianus Andr. ex DC.

Family: BRASSICACEAE

Taxonomic comments:

Recognized as a distinct species in Kartesz, 1989.

Diagnostic characteristics:

Dwarf plant with long root and subterranean stolons; leaves ovate-spatulate; plant pubescent with simple hairs; flowers white to purplish; fruit a silique (Welsh, 1974).

Similar species:

A mustard that is distinct in appearance, recognized in its habitat by its stoloniferous habit and cauline leaves borne at the top of a naked stem.

RANKING:

Global rank: G3

Global ranking comments:

13 element occurrences documented but difficult to determine # element occurrences on Aleutian Islands due to remote nature of most occurrences. Also, arctic area undercollected. Additional occurrences likely.

State rank: S2S3

State ranking comments

At least ten occurrences documented in Alaska, with additional occurrences likely due to remote nature of habitat in which the plant is found.

DISTRIBUTION AND ABUNDANCE:

Range:

Global range comments:

Alaska (Aleutian Islands, Southcentral Alaska, Seward Peninsula, and Brooks Range), Southwest Yukon.

State range comments:

Aleutian Islands, Seward Peninsula, Brooks Range (Arrigetch Peaks), western Alaska Range (Post River), Wrangell Mountains.

Abundance:

Global abundance comments:

Global abundance unknown. Inventory needed.

State abundance comments:

State abundance unknown. Inventory needed.

Habitat:

Global habitat:

Tundra and heath, often in wet areas.

State habitat:

Limited to wet areas of tundra and heath such as areas of solifluction.

INFORMATION NEEDS:

Inventory needs:

Global inventory needs:

Present data based on literature and some herbarium records.
Needs field verification.

State inventory needs:

Documented occurrences need to be verified in the field, with new occurrences searched for in appropriate habitat from Seward Peninsula to Aleutians.

PROTECTION:

Status:

While several occurrences are located in the Alaska Maritime Wildlife Refuge of the U.S. Fish and Wildlife Service, no populations are known to receive special protection.

Needs:

Global protection needs:

Protect all occurrences unless further inventory proves species to be more widespread or common.

State protection needs:

Protect documented occurrences unless species proves to be more widespread or common than present records would indicate.

DOCUMENTED OCCURRENCES ON OR NEAR ALASKA FOREST SERVICE LANDS:

Occurrence data not yet entered into database. One occurrence reported from Seward Ranger District of Chugach National Forest.
For current detailed locational information on this species, contact the Alaska Natural Heritage Program.

LITERATURE:

Argus, G.W., and K.M. Pryer. Rare vascular plants in Canada. Canada Museum of Nature, Ottawa, Ontario, Canada. 192 p. + maps.

Douglas, G.W., G.W. Argus, H.L. Dickson, and D.F. Brunton. 1981. The Rare Vascular Plants of the Yukon. Syllogeus 28. Ottawa: National Museums of Canada.

Hultén, E. 1941-1950. Flora of Alaska and Yukon. 1-10. Lunds Univ. Arsskr. N.F. Avd. 2, Vol. 37-46. 1,902 p.

Hultén, E. 1968. Flora of Alaska and neighboring territories. Stanford Univ. Press, Stanford, CA. 1,008 p.

Kartesz, J.T. 1989. Working draft of vascular plants of Alaska. The Nature Conservancy, Arlington, Virginia. 71 p.

SPECIES DESCRIPTION
ARNICA LESSINGII SSP NORBERGII

TAXONOMY:

Scientific name: Arnica lessingii ssp norbergii Hultén & Maguire

Common name: NORBERG ARNICA

Family: ASTERACEAE

Synonyms: Arnica lessingii Greene

Taxonomic comments:

According to Hultén, 1968, this subspecies may merely be a local variation, a southern condition of the species with tall stems and several pairs of stem leaves. Not considered varietally distinct in Kartesz, 1989.

Diagnostic characteristics:

Anthers purplish-black; pappus tawny; heads nodding in anthesis; ligule of ray flowers longer than the purplish involucral bracts; stem leaves in 4-6 pairs (Hultén, 1968).

Similar species:

Similar to the typical variety of A. lessingii, but taller, with 5-6 pairs of stem leaves, and with sparse pubescence.

RANKING:

Global rank: G5T1Q

Global ranking comments:

Only five known global collection sites. Endemic to southern Alaska. Of questionable status; may only be a taller and more robust southern variation of the relatively common typical variety.

State rank: S1

State ranking comments

Only five widely separated occurrences reported in Alaska.

DISTRIBUTION AND ABUNDANCE:

Range:

Global range comments:

Endemic to the southern half of the state of Alaska. The three known collection locations are located over three hundred miles apart.

State range comments:

Five known occurrences, in Southwestern, Southcentral, and Southeastern Alaska, respectively.

Abundance:

Global abundance comments:

Plant rhizomatous, individuals difficult to define. Due to limited distribution and few known specimens, there are probably fewer than 1000 individuals in existence.

State abundance comments:

Plant rhizomatous, individuals difficult to define. Limited distribution and few known specimens.

Habitat:

Global habitat:

Alpine and subalpine meadows, arctic and alpine tundra, heath, and open woods.

State habitat:

Alpine and subalpine meadows.

INFORMATION NEEDS:

Inventory needs:

Global inventory needs:

All three known occurrences should be surveyed to determine specific location, size, and vulnerability of the populations.

State inventory needs:

Search for additional occurrences within the overall range of the subspecies. Verify known populations and determine size and extent of populations.

PROTECTION:

Status:

Locational information from herbarium labels of three known collections is so general as to preclude any certainty as to specific location and protection status of sites.

Needs:

Global protection needs:

All three occurrences should be protected.

State protection needs:

Protect all documented occurrences until taxonomic questions are resolved.

DOCUMENTED OCCURRENCES ON OR NEAR ALASKA FOREST SERVICE LANDS:

001 ORCA 60 34 44N 145 42 58W

Mapping precision: Precision within 10km of the mapped location

Directions:
Orca vicinity.

General description:
Damp meadow

Elevation: 30.5M

Date last observed: 1938-08-02

SPECIMENS: 1937 NORBERG, I.L. SN. S; WTU
CHUGACH NATIONAL FOREST

002 JUNEAU 58 18 43N 134 24 04W

Mapping precision: Precision within 10km of the mapped location

Directions:
Juneau

General description:
Not available.

Elevation: 305M

Date last observed: 1940-08-11

SPECIMENS: 1940 ANDERSON, J.P.; Hultén, E. 8144. ALA
NOT ON FOREST SERVICE LAND

003 MENDENHALL 58 25 44N 134 31 44W

Mapping precision: Precision within 10km of the mapped location

Directions:
Mendenhall

General description:
Not available.

Elevation: 212M

Date last observed: 1927

SPECIMENS: 1927. ANDERSON, J.P. 375. S (according to Hultén, 1941)

TONGASS NATIONAL FOREST

004 MT. ROBERTS 58 17 25N 134 21 02W

Mapping precision: Precision within 10km of the mapped location

Directions:

Gastineau Peak at about 3500 ft., Mt. Roberts, Juneau.

General description:

On rocky ledges.

Elevation: 1070M

Date last observed: 1965-08-05

SPECIMENS: 1965 WILLIAMS, M. 1390. ALA

NOT ON FOREST SERVICE LAND

005 PORT SAN JUAN, EVANS ISLAND 60 03 06N 148 04 00W

Mapping precision: Precision within 10km of the mapped location

Directions:

Port San Juan, Evans Island, Prince William Sound.

General description:

Not available.

Elevation: 000M

Date last observed: 1948-07-15

SPECIMENS: 1948 EYERDAM, W.J. 4116. S, WTU

CHUGACH NATIONAL FOREST

LITERATURE:

Douglas, G.W. 1982. The sunflower family (Asteraceae) of British Columbia, Vol. I - Senecioneae. British Columbia Provincial Mus. No. 23, Occas. Pap. Ser. 180 p.

Hultén, E. 1941-1950. Flora of Alaska and Yukon. 1-10. Lunds Univ. Arsskr. N.F. Avd. 2, Vol. 37-46. 1,902 p.

Hultén, E. 1968. Flora of Alaska and neighboring territories. Stanford Univ. Press, Stanford, CA. 1,008 p.

Kartesz, J.T. 1989. Working draft of vascular plants of Alaska. The Nature Conservancy, Arlington, Virginia. 71 p.

Maguire, B. 1942. Arnica in Alaska and Yukon. Madrono 6:153-155.

Maguire, B. 1943. A monograph of the genus Arnica. Brittonia 4(3):386-509.

Straley, G.B. 1990. Letter to John DeLapp in response to questions concerning the taxonomic status of certain Arnica and Rorippa spp. Dated 14 August 1990.

Welsh, S.L. 1974. Anderson's flora of Alaska and adjacent parts of Canada. Brigham Young Univ. Press, Provo, UT. 724 p.

SPECIES DESCRIPTION
ATRIPLEX ALASKENSIS

TAXONOMY:

Scientific name: Atriplex alaskensis S. Wats.

Common name: ALASKA SPEARSCALE

Family: CHENOPODIACEAE

Synonyms: A. patula L.
A. patula var. alaskensis (Wats.) Welsh

Taxonomic comments:

Recognized as a distinct species in Kartesz, 1989.

Diagnostic characteristics:

Leaves broad, petiolated; fruiting bracts smooth on sides, large, acute, ovate or rhombic, with broad, attenuate apex (Hultén, 1968).

Similar species:

Similar to (and questionably distinct from) A. patula and A. hortensis. Distinguished by its broader leaf blades and pistillate bracts somewhat basally thickened at maturity. (Welsh, 1974).

RANKING:

Global rank: G3G4Q

Global ranking comments:

12-20 element occurrences, but clearly undercollected. Probably more common throughout its range in Southeast and Southcentral Alaska.

State rank: S3S4

State ranking comments

While there are only 13 occurrences documented in Alaska in Hultén, 1968, characteristics of the distribution and habitat indicate that the species is more widespread.

DISTRIBUTION AND ABUNDANCE:

Range:

Global range comments:

Limited to coastal southern Alaska.

State range comments:

Limited to seashores of southern Alaska from Shumagin Islands to southern Southeast Alaska.

Abundance:

Global abundance comments:

Global abundance unknown.

State abundance comments:

State-wide abundance of species unknown.

Habitat:

Global habitat:

Saline soils of southern coastal Alaska seashores.

State habitat:

Seashores.

INFORMATION NEEDS:

Inventory needs:

Global inventory needs:

Survey seashores of southern Alaska for additional occurrences.

State inventory needs:

Survey seashores of southern Alaska, verify documented occurrences and search for new populations.

PROTECTION:

Status:

Several occurrences located on federal land, but none known to receive special protection.

Needs:

Global protection needs:

No special protection measures needed unless subsequent inventories prove species to be rarer than current distributional records would indicate.

State protection needs:

No special protection needed.

DOCUMENTED OCCURRENCES ON OR NEAR ALASKA FOREST SERVICE LANDS:

Occurrence data not yet entered into database. Occurrences reported from Chugach and Tongass National Forests. For current detailed locational information on this species, contact the Alaska Natural Heritage Program.

LITERATURE:

Hultén, E. 1968. Flora of Alaska and neighboring territories. Stanford Univ. Press, Stanford, CA. 1,008 p.

Kartesz, J.T. 1989. Working draft of vascular plants of Alaska. The Nature Conservancy, Arlington, Virginia. 71 p.

Welsh, S.L. 1974. Anderson's flora of Alaska and adjacent parts of Canada. Brigham Young Univ. Press, Provo, UT. 724 p.

SPECIES DESCRIPTION
CAREX LENTICULARIS VAR DOLIA

TAXONOMY:

Scientific name: Carex lenticularis var dolia (M. E. Jones) L.

Standley

Common name: GOOSE-GRASS SEDGE

Family: CYPERACEAE

Synonyms: Carex plectocarpa Hermann

C. enanderi Hult.

C. eurystachya Hermann

Taxonomic comments:

Distinct variety as described by Standley, 1981. Originally described as C. plectocarpa F.J. Hermann, which Murray, 1980 considered might simply manifest a response of C. eleusinoides Turcz. to alpine conditions. Standley includes C. enanderi, C. eurystachya, and C. plectocarpa within C. lenticularis var dolia (and recognizes C. eleusinoides as a distinct taxon). Recognized as a distinct variety in Kartesz, 1989.

Diagnostic characteristics:

Beak of perigynium entire, 0.1-0.3 mm long; perigynia green or tawny, elliptic or obovate; leaves 2-5 mm wide; involucral bract longer than inflorescence; perigynia stipitate; basal sheaths glabrous, brown; roots yellow; terminal spike pistillate with only a few staminate flowers basally; basal spike up to 1.5 mm long, with a peduncle up to 1 cm long. (Standley, 1981)

Similar species:

This sedge is similar to the other, more common, varieties of C. lenticularis, from which it differs with its pistillate terminal spike and shorter basal spike (up to 1.5 cm long) and associated peduncle (up to 1 cm).

RANKING:

Global rank: G5T2

Global ranking comments:

Possibly declining populations; "few collections of var dolia are known" (Standley, 1981). Listed as Federal Category 2 in 90-02-21 Federal Register.

State rank: S2

State ranking comments:

Only nine occurrences of the species in the state.

DISTRIBUTION AND ABUNDANCE:

Range:

Global range comments:

Coast mountains of Alaska and British Columbia and in the Rocky Mountains from Jasper, B.C., south to Glacier National Park, Montana.

State range comments:

Limited to the alpine of coastal Southcentral and Southeast Alaska and the Aleutian Islands.

Abundance:

Global abundance comments:

Unknown, inventory needed.

State abundance comments:

Abundance unknown. Limited number of collections would indicate a small number of individuals.

Habitat:

Global habitat:

Wet meadows and lake shores, snowbeds, 1500-3000 meters (600 meters in southeast Alaska).

State habitat:

Wet meadows and edges of snowbeds.

INFORMATION NEEDS:

Inventory needs:

Global inventory needs:

Further field surveys in Glacier National Park and in alpine habitats of coastal Southeast and Southcentral Alaska and Aleutian Islands.

State inventory needs:

Verify historical occurrences and survey alpine habitats within Southcentral and Southeast Alaska and Aleutians for additional populations.

PROTECTION:

Status:

Two element occurrences mentioned by Standley occur in Glacier National Park.

Needs:

Global protection needs:

Unknown, inventory needed.

State protection needs:

Protect known populations.

DOCUMENTED OCCURRENCES ON OR NEAR ALASKA FOREST SERVICE LANDS:

001 MT. ROBERTS 58 16 44N 134 19 55W

Mapping precision: Precision within 10KM of the mapped location

Directions:

At 610M elevation on Mt. Roberts.

General description:

Snowpatch in snowbed meadow.

Elevation: 610M

Date last observed: 1959-08-27

SPECIMENS: 1959 VIREECK, L.A. 4802. ALA

NOT ON FOREST SERVICE LAND

002 THUMB BAY, KNIGHT ISLAND 60 12 20N 147 49 03W

Mapping precision: Precision within 10km of the mapped location

Directions:

Thumb Bay, Knight Island.

General description:

Not available.

Elevation: 200M

Date last observed: 1939-09

SPECIMENS: 1939 EYERDAM, W.J. 3231. DAO

CHUGACH NATIONAL FOREST

003 THREE SAINTS BAY, KODIAK ISLAND

Mapping precision: Precision within 10km of the mapped location

Directions:

Three Saints Bay, Kodiak Island.

General description:

Not available.

Elevation: Unknown

Date last observed: 1931-08-08

SPECIMENS: EYERDAM, W.J. (according to Hultén, 1941)

NOT ON FOREST SERVICE LAND

004 SKAGWAY 59 27 23N 135 15 47W

Mapping precision: Precision within 10km of the mapped location

Directions:

Skagway alpine.

General description:

Alpine habitat.

Elevation: 700M

Date last observed: 1913-09-10

SPECIMENS: 1913 ENANDER, S.J. SN. S (according to Hultén, 1941)

NOT ON FOREST SERVICE LAND

005 ATTU ISLAND

Mapping precision: Precision within 10km of the mapped location

Directions:

Attu Island, Jarmin Pass.

General description:

On wet mossy ground.

Elevation: 152M

Date last observed: 1945-09-09

SPECIMENS: 1945 SCHAACK, L.T.J.B. 1024. WTU

NOT ON FOREST SERVICE LAND

006 MENDENHALL GLACIER 58 25 46N 134 34 27W

Mapping precision: Precision within 10km of the mapped location

Directions:

About ten miles north of Juneau near west shore of lake at the face of Mendenhall Glacier, on flats next to small stream between glacier and visitor center.

General description:

Open area with silt flats and glacially scoured rock areas

Elevation: 15M

Element occurrence data:

Common in small clumps at margins of small stream, growing both in and out of the water.

Date last observed: 1981-07-09

SPECIMENS: 1981 MULLER, M.C. 4334. WTU

TONGASS NATIONAL FOREST

007 BAILEY BAY, CLEVELAND PENINSULA 55 59 05N 131 39 29W

Mapping precision: Precision within a one minute radius, approx. 2.0km, of the mapped location

Directions:

Tongass National Forest, about 45 miles NNE of Ketchikan on Cleveland Peninsula, in vicinity of hot springs 0.25 miles up Spring Creek from Lake Shelokum, 0.5 miles NE of Bailey Bay at base of hill where springs occur.

General description:

At base of hill slope where hot springs occur (open granite), in meadow where hot water reaches floodplain.

Elevation: 122M

Date last observed: 1982-07-29

SPECIMENS: 1982 MULLER, M.C. 4905. WTU

TONGASS NATIONAL FOREST

008 CRAIGIE CREEK, BETWEEN PALMER AND WILLOW 61 46 48N 149 23 30W

Mapping precision: Precision within 10km of the mapped location

Directions:

Craigie Creek, between Palmer and Willow.

General description:

Floodplain.

Elevation: 850M

Date last observed: 1947-08-08

NOT ON FOREST SERVICE LAND

009 CHICKAMIN GLACIER 56 03 54N 130 16 23W

Mapping precision: Precision within 10km of the mapped location

Directions:

Above timberline, Chickamin Glacier, Texas Creek Summit.

General description:

Open habitat above timberline.

Elevation: 1082M

Element occurrence data:

Common in bare, rather fine glacial gravels.

Date last observed: 1941-07-16

TONGASS NATIONAL FOREST

LITERATURE:

Hall, J., and P. Alaback. 1992 (In press). Native plants of southern Alaska. Univ. of Alaska Press, Fairbanks, AK.

Hermann, F.J. 1964. A new Carex from Glacier National Park, Montana. Leaflet. Western Bot. 10(5):65-69.

Hermann, F.J. 1970. Manual of the Carices of the Rocky Mountains and Colorado Basin. Agricultural Handbook 374. U.S Forest Service, Washington, DC.

Hultén, E. 1941-1950. Flora of Alaska and Yukon. 1-10. Lunds Univ. Arsskr. N.F. Avd. 2, Vol. 37-46. 1,902 p.

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SPECIES DESCRIPTION
CASTILLEJA CHRymACTIS

TAXONOMY:

Scientific name: Castilleja chrymactis Pennell
Common name: A PAINTBRUSH
Family: SCROPHULARIACEAE
Synonyms: Castilleja miniata Dougl. ex Hook pro parte

Taxonomic comments:

Taxonomically questionable, closely related to Castilleja hyetophila. Both species subsumed by Welsh, 1974, into C. miniata.

Diagnostic characteristics:

Species not well-defined. Distinguished from similar C. hyetophila and C. miniata by its larger corolla and more lobed bracts with acute teeth (Hultén, 1968).

Similar species:

Similar to (and questionably distinct from) C. hyetophila and C. miniata, from which it can be distinguished by its larger corolla, more distinctly lobed bracts with acute teeth, and short and dense inflorescence (Hultén, 1968).

RANKING:

Global rank: G1Q

Global ranking comments:

Limited number of occurrences of species; taxonomically questionable species in a difficult genus.

State rank: S1

State ranking comments

Only three verified occurrences in Alaska.

DISTRIBUTION AND ABUNDANCE:

Range:

Global range comments:

Endemic to Southeast Alaska and adjacent British Columbia, verified specimens known only from 150 mile area of northern Southeast Alaska.

State range comments:

The verified occurrences are limited to northern Southeast Alaska; additional unverified occurrences in southern Southeast Alaska.

Abundance:

Global abundance comments:

Plants rhizomatous, difficult to identify true individuals.
Assume less than 1000 individuals due to few known locations.

State abundance comments:

Plant rhizomatous, difficult to identify individuals. It may be assumed that there are relatively few individuals within the state.

Habitat:

Global habitat:

In meadows near seashore; upper beach meadows.

State habitat:

Upper beach meadows.

INFORMATION NEEDS:

Inventory needs:

Global inventory needs:

Known and reported locations for the species need to be surveyed.
Northern Southeast Alaska needs to be surveyed for new populations.

State inventory needs:

Search for additional occurrences within the overall range of the species. Verify known populations and determine size and extent of populations.

PROTECTION:

Status:

Several locations of verified specimens occur in Glacier Bay National Park, but receive no special protection.

Needs:

Global protection needs:

Protect all locations for which there are verified specimens.
Educate Glacier Bay management as to location and protection needs of species populations in park.

State protection needs:

Protect known occurrences.

DOCUMENTED OCCURRENCES ON OR NEAR ALASKA FOREST SERVICE LANDS:

001 DOG ISLAND 54 59 15N 131 18 16W

Mapping precision: Precision within 10km of the mapped location

Directions:

Dog Island.

General description:

Tidal flats, near the woods.

Elevation: Unknown

Element occurrence data:

Common in tidelands with Myrica gale and Poa eminens. 30-60 cm tall. Calyx and bracts reddish.

Date last observed: 1972-07-24

SPECIMENS: 1972 ROBUCK, W. 1342. JUNEAU FSL

TONGASS NATIONAL FOREST

002 KLAWOCK 55 34 01N 133 04 53W

Mapping precision: Precision within 10km of the mapped location

Directions:

Edge of Klawock town.

General description:

In marsh.

Elevation: 005M

Element occurrence data:

In marsh with Poa, Astragalus, Heracleum, and Ligusticum. Plant "common, with red corolla" (label, Robuck, 1970, Juneau FSL).

Date last observed: 1970-07-16

SPECIMENS: 1970 ROBUCK, W. JUNEAU FSL

TONGASS NATIONAL FOREST

003 BARTLETT COVE 58 28 10N 135 51 08W

Mapping precision: Precision within 10km of the mapped location

Directions:

Bartlett Cove area of Glacier Bay National Park, along Bartlett River estuary.

General description:

Upper drier regions of meadows and beaches along estuary.

Elevation: Unknown

Element occurrence data:

Plant growing in upper drier regions of the beaches and meadows along the Bartlett River Estuary. Plants 30 - 60 cm tall. Flowers orange to red. Growing with Lupinus, Ranunculus, and Elymus.

Date last observed: 1974-06-30

SPECIMENS: 1962 KORANDA J.J. SN. DAO

NOT ON FOREST SERVICE LAND

004 POINT AGASSIZ 56 57 06N 132 53 11W

Mapping precision: Precision within a one minute radius, approx. 2.0km, of the mapped location

Directions:

Point Agassiz.

General description:

In tideland meadow.

Elevation: Unknown

Element occurrence data:

Plants common, corolla red; growing in tideland meadow with Lupinus, Elymus, Potentilla, Carex, and Ranunculus occidentalis.

Date last observed: 1973-06-28

SPECIMENS: 1974 ROBUCK, W. 1459. JUNEAU FSL

TONGASS NATIONAL FOREST

005 GLACIER BAY

Mapping precision: Unmappable

Directions:

Glacier Bay National Park.

General description:

Not available.

Elevation: Unknown

Date last observed: Unknown

SPECIMENS: 1974 ROBUCK, W. 1400. JUNEAU FSL

NOT ON FOREST SERVICE LAND

006 WILLOUGHBY ISLAND 58 34 53N 136 05 53W

Mapping precision: Precision within 10km of the mapped location

Directions:

Willoughby Island, Glacier Bay.

General description:

Not available.

Elevation: 50M

Date last observed: Unknown

SPECIMENS: COOPER, W.S. 105. US (according to Hultén, 1941)

NOT ON FOREST SERVICE LAND

007 BEARDSLEE ISLAND 58 32 27N 135 56 45W

Mapping precision: Precision within 10km of the mapped location

Directions:

Beardslee Island, Glacier Bay.

General description:

Not available.

Elevation: 5M

Date last observed: Unknown

SPECIMENS: ANDERSON, J.P. 1295. US (according to Hultén, 1941)

NOT ON FOREST SERVICE LAND

008 POINT GUSTAVUS 58 23 12N 135 54 25W

Mapping precision: Precision within 10km of the mapped location

Directions:

Point Gustavus, Glacier Bay National Park.

General description:

Beach meadow.

Elevation: 5M

Date last observed: 1899

SPECIMENS: ANDERSON, J.P. 1296. US (according to Hultén, 1941)

NOT ON FOREST SERVICE LAND

009 YAKUTAT BAY

Mapping precision: Unmappable

Directions:

Yakutat Bay.

General description:

Beach meadow.

Elevation: Unknown

Date last observed: 1899-06

SPECIMENS: COVILLE, F.V.; KEARNY, T.H. 749. US

TONGASS NATIONAL FOREST

010 EGG ISLAND, YAKUTAT BAY 59 57 52N 139 31 55W

Mapping precision: Precision within 10km of the mapped location

Directions:

Egg Island (Haenke Island), Yakutat Bay.

General description:

Not available.

Elevation: 50M

Date last observed: 1899-06

SPECIMENS: COVILLE F.V.; KEARNEY, T.H. 1147 US

TONGASS NATIONAL FOREST

011 DISENCHANTMENT BAY 59 56 09N 139 31 55W

Mapping precision: Precision within 10km of the mapped location

Directions:

Disenchantment Bay, off Yakutat Bay.

General description:

Not available.

Elevation: Unknown

Date last observed: 1899-06

SPECIMENS: COVILLE, F.V.; KEARNEY, T.H. 1147. US

TONGASS NATIONAL FOREST

012 YAKUTAT BAY 59 52 29N 139 46 52W

Mapping precision: Precision within 10km of the mapped location

Directions:

West side of Yakutat Bay, 2 miles NE of Grand Wash River.

General description:

On stabilized sand dunes.

Elevation: 002M

Date last observed: 1967-06-14

SPECIMENS: COVILLE, F.V.; KEARNEY, W.H. 1028. (according to Hultén, 1941)

NOT ON FOREST SERVICE LAND

LITERATURE:

Hall, J., and P. Alaback. 1992 (In press). Native plants of southern Alaska. Univ. of Alaska Press, Fairbanks, AK.

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SPECIES DESCRIPTION
CIRSIUM EDULE

TAXONOMY:

Scientific name: Cirsium edule Nuttall
Common name: EDIBLE THISTLE
Family: ASTERACEAE

Taxonomic comments:
A distinct species.

Diagnostic characteristics:

Involucres less than less than 3 cm high; outer involucral bracts less than 2 mm wide at base, densely arachnoid; leaves arachnoid-villous to floccose, tomentose or glabrate above, stems not spiny-winged; pappus of mature seeds shorter than the corollas; corolla purplish pink; styles exceeding the corollas by at least 3 mm; achenes 5-6.5 mm long; leaves usually lobed more than one-half the width of the blade (Moore & Frankton, 1974).

Similar species:

Distinct, not easily confused with any other taxon within Alaska.

RANKING:

Global rank: G3

Global ranking comments:

Species occurs in fairly limited range as a regional endemic.

State rank: S1

State ranking comments

Limited to single occurrence in Alaska.

DISTRIBUTION AND ABUNDANCE:

Range:

Global range comments:

Native to coastal Oregon, Washington, and British Columbia, barely reaching southernmost Southeast Alaska.

State range comments:

Limited to southernmost Southeast Alaska, near Hyder.

Abundance:

Global abundance comments:

Common within its range.

State abundance comments:

Single collection would indicate that the species probably does not occur in great numbers within its range in Alaska.

Habitat:

Global habitat:

Wet meadows, woods.

State habitat:

Wet meadows and open woods.

INFORMATION NEEDS:

Inventory needs:

Global inventory needs:

Number of individuals and populations need to be determined within the species' known range.

State inventory needs:

Visit Hyder area to verify known populations and determine abundance and extent of species in Alaska. Survey similar habitat in the area for additional populations.

PROTECTION:

Status:

Unknown protection status.

Needs:

Global protection needs:

No special protection status needed.

State protection needs:

Protect Hyder population unless inventory shows the species to be more widespread and persistent.

DOCUMENTED OCCURRENCES ON OR NEAR ALASKA FOREST SERVICE LANDS:

001 HYDER 55 56 47N 130 02 28W

Mapping precision: Precision within 10km of the mapped location

Directions:

Hyder.

General description:

Along edges of glacial streams.

Elevation: 185M

Date last observed: 1926

SPECIMENS: 1926 MAYER, E.G. 32. US

TONGASS NATIONAL FOREST

LITERATURE:

Abrams, L., and R.S. Ferris. 1923. Illustrated flora of the Pacific states. Vols. I-IV. Stanford Univ. Press. 2771 p.

Douglas, G.W., G. Straley, and D. Meidinger (eds). 1989. The vascular plants of British Columbia. Part 1 - Gymnosperms and Dicotyledons (Aceraceae through Cucurbitaceae). British Columbia Ministry of Forests, Research Branch, Victoria, British Columbia, Canada. 208 p.

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Hultén, E. 1973. Supplement to flora of Alaska and neighboring territories: A study in the flora of Alaska and the transberingian connection. Bot. Not. 126:459-512.

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Moore, R.J., and C. Frankton. 1974. The thistles of Canada. Res. Branch, Canad. Dept. of Agric. Monogr. No. 10. 111 p.

Muller, M.C. 1991. Preliminary sensitive plant list, Tongass National Forest. Unpubl. U.S. Forest Service document. 6 p.

Welsh, S.L. 1974. Anderson's flora of Alaska and adjacent parts of Canada. Brigham Young Univ. Press, Provo, UT. 724 p.

SPECIES DESCRIPTION
DODECATHEON PULCHELLUM SSP ALASKANUM

TAXONOMY:

Scientific name: Dodecatheon pulchellum ssp alaskanum (Hult.)

Hultén

Common name: ALASKAN PRETTY SHOOTING STAR

Family: PRIMULACEAE

Synonyms: Dodecatheon pulchellum (Raf.) Merrill

D. macrocarpum (Gray) Knuth

D. macrocarpum var alaskanum Hult.

D. pauciflorum Stand.

Taxonomic comments:

This variety represents a coastal polyploid race of the species, "scarcely recognizable from similar diploid plants of the interior," according to Hitchcock, et al., 1955. The subspecies is not recognized as a distinct taxon by Terri Suttill, Univ. Victoria, in her masters research on the D. pulchellum group (pers. com., Robert Ogilvie). Included as a synonym of D. pulchellum ssp macrocarpum in Kartesz, 1989.

Diagnostic characteristics:

Filament tube of anthers long and prominent, orange; stigma not enlarged; leaves ovate, short-petiolated; scape short, about twice as long as leaves. (Hultén, 1968)

Similar species:

Similar to D. pulchellum ssp superbum, but plant smaller, leaves membranous, thin, spreading, ovate-elliptic. (Hultén, 1968)

RANKING:

Global rank: G5T2Q

Global ranking comments:

This coastal subspecies is known from approximately ten collections.

State rank: S2

State ranking comments

Only six verified collections from the state.

DISTRIBUTION AND ABUNDANCE:

Range:

Global range comments:

Occurring on Kodiak Island, northern Southeast Alaska, and near Great Slave Lake, District of Mackenzie, Northwest Territory, Canada.

State range comments:

Limited to Southcentral and Southeast coasts of Alaska.

Abundance:

Global abundance comments:

Unknown, inventory needed.

State abundance comments:

Unknown, inventory needed.

Habitat:

Global habitat:

Moist meadows.

State habitat:

Moist open habitats.

INFORMATION NEEDS:

Inventory needs:

Global inventory needs:

Known populations of taxon need be verified, population size and trends determined, and variation in diagnostic characteristics examined.

State inventory needs:

Known populations of the variety need to be verified, population size and trends determined, and variation in diagnostic characteristics examined.

PROTECTION:

Status:

No known protected occurrences.

Needs:

Global protection needs:

Protect documented occurrences unless further study determines subspecies to be an invalid taxon or subsequent surveys find the subspecies more common than previous collections would indicate.

State protection needs:

Protect known populations until the question of the taxonomic validity of the subspecies is resolved.

DOCUMENTED OCCURRENCES ON OR NEAR ALASKA FOREST SERVICE LANDS:

001 JUNEAU 58 17 28N 134 22 49W

Mapping precision: Precision within 10km of the mapped location

Directions:

Juneau vicinity

General description:

Not available.

Elevation: 230M

Date last observed: Unknown

SPECIMENS: COVILLE, F.V.; KEARNEY, T.H. 557. (according to Hultén, 1941)

NOT ON FOREST SERVICE LAND

002 GLACIER BAY

Mapping precision: Unmappable

Directions:

Glacier Bay National Park.

General description:

Not available.

Elevation: Unknown

Date last observed: Unknown

SPECIMENS: ANDERSON, J.P. 582,2081 (according to Hultén, 1941)

NOT ON FOREST SERVICE LAND

003 AFOGNAK ISLAND

Mapping precision: Unmappable

Directions:

Afognak Island.

General description:

Not available.

Elevation: Unknown

Date last observed: Unknown

SPECIMENS: KINCAID; ANDERSON. 1284. (according to Hultén, 1941)

NOT ON FOREST SERVICE LAND

004 PORT HOBROON 57 09 54N 153 08 39W

Mapping precision: Precision within 10km of the mapped location

Directions:

Port Hobron, Sitkalidak Island.

General description:

Not available.

Elevation: 30.5M

Date last observed: 1931

SPECIMENS: EYERDAM, W.J. (according to Hultén, 1941)

NOT ON FOREST SERVICE LAND

005 KODIAK

Mapping precision: Unmappable

Directions:

Kodiak.

General description:

Not available.

Elevation: Unknown

Date last observed: 1867

SPECIMENS: EYERDAM. W.J. 47. (according to Hultén, 1941)

NOT ON FOREST SERVICE LAND

006 KUKAK BAY

Mapping precision: Unmappable

Directions:

Kukak Bay, Alaska Peninsula.

General description:

Not available.

Elevation: Unknown

Date last observed: 1899

SPECIMENS: KELLOGG; MYLROIE; MACOUN, J. (according to Hultén, 1941)

NOT ON FOREST SERVICE LAND

007 HOONAH 58 07 23N 135 27 06W

Mapping precision: Precision within 10km of the mapped location

Directions:

Hoonah, Chichagof Island.

General description:

Hoonah, Chichagof Island.

Elevation: 61M

Date last observed: 1932-06-17

SPECIMENS: KELLOGG; MYLROIE; MACOUN, J. (according to Hultén, 1941)

NOT ON FOREST SERVICE LAND

008 WOMAN'S BAY

Mapping precision: Precision within 10km of the mapped location

Directions:

Woman's Bay, Kodiak Island.

General description:

Grassy knoll by sea.

Elevation: Unknown

Element occurrence data:

Plentiful on grassy knoll by sea (label, Williams 1970, WTU).

Date last observed: 1970-06-25

SPECIMENS: 1970. WILLIAMS, M. 2548. WTU

NOT ON FOREST SERVICE LAND

009 VALDEZ 61 08 17N 146 18 50W

Mapping precision: Precision within 10km of the mapped location

Directions:

About one mile from new town of Valdez, tide flats.

General description:

On tide flats with Elymus mollis, Primula sp., and grasses.

Elevation: 0.5M

Date last observed: 1968-06-22

SPECIMENS: COVILLE, F.V.; KEARNEY, T.H. (according to Hultén, 1941)

NOT ON FOREST SERVICE LAND

LITERATURE:

Beamish, K.I. 1955. Studies in the genus Dodecatheon of northwestern America. Bull. Torr. Bot. Club 82:357-366.

Calder, J.A., and R.L. Taylor. 1968. Flora of the Queen Charlotte Islands. Canad. Dept. Agric. Res. Branch Monogr. 4, Part 1.

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Kartesz, J.T. 1989. Working draft of vascular plants of Alaska. The Nature Conservancy, Arlington, Virginia. 71 p.

Welsh, S.L. 1974. Anderson's flora of Alaska and adjacent parts of Canada. Brigham Young Univ. Press, Provo, UT. 724 p.

SPECIES DESCRIPTION
DRABA BOREALIS VAR MAXIMA

TAXONOMY:

Scientific name: Draba borealis var maxima (Hultén) Welsh
Common name: NORTHERN ROCKCRESS
Family: BRASSICACEAE
Synonyms: Draba borealis DC
D. mcallae
D. maxima Hult.

Taxonomic comments:

D. borealis sensu lato is closely related to D. glabella, from which it cannot always be distinguished. D. borealis var maxima is a well-defined variety, but intergrading varieties between this and the typical variety do occur, according to Welsh, 1974. Draba borealis has a chromosome number of $2n=80$ and is considered a self-compatible inbreeder. "D. borealis is identical with plants that have been called D. maxima and D. mcallae" according to Mulligan, 1970. Recognized as a distinct variety in Kartesz, 1989.

Diagnostic characteristics:

In a large genus of about 270 species, this species is characterized by its white (or cream) flowers, tall stems, multiple stem leaves, and long simple hairs on the lower part of the stem (Hultén, 1968).

Similar species:

Similar to typical variety of D. borealis, but taller and coarser.

RANKING:

Global rank: G5T2Q

Global ranking comments:

Only eight verified global occurrences.

State rank: S2

State ranking comments

Limited to nine occurrences in Alaska.

DISTRIBUTION AND ABUNDANCE:

Range:

Global range comments:

Endemic to southern Alaska and adjacent British Columbia.

State range comments:

Limited to Kodiak, Southcentral and northern Southeast Alaska.

Abundance:

Global abundance comments:

Unknown, inventory needed.

State abundance comments:

Unknown, inventory needed.

Habitat:

Global habitat:

Alpine tundra, heath, open woods, often on rock outcrops, according to Welsh, 1974.

State habitat:

Same as global.

INFORMATION NEEDS:

Inventory needs:

Global inventory needs:

Reported occurrences need to be verified and population size and extent determined. New occurrences need to be sought out within the range of the variety.

State inventory needs:

Search for additional occurrences within the range of the variety.

PROTECTION:

Status:

Several occurrences documented on Tongass National Forest of Alaska, but no occurrences receive special protection.

Needs:

Global protection needs:

Protect documented occurrences unless further study determines subspecies to be an invalid taxon or subsequent surveys find the subspecies more common than previous collections would indicate.

State protection needs:

Protect known occurrences on National Forest land.

DOCUMENTED OCCURRENCES ON OR NEAR ALASKA FOREST SERVICE LANDS:

001 POINT ANMER 57 56 22N 133 50 41W

Mapping precision: Precision within a one minute radius, approx. 2.0km, of the mapped location

Directions:

Point Anmer, Snettisham Peninsula.

General description:

Along a grassy knoll with a northern exposure, open area along beach and rocks, dominated by Angelica, Dodecatheon, Geranium, Heracleum, and Castilleja.

Elevation: 002M

Element occurrence data:

Plants 20 - 46 cm tall, leaves basal, flowers white (label, Robuck, 1975, JUNEAU FSL).

Date last observed: 1975-06-30

SPECIMENS: 1975 ROBUCK, W. 1524. JUNEAU FSL

TONGASS NATIONAL FOREST

002 MENDENHALL GLACIER 58 25 46N 134 34 27W

Mapping precision: Precision within a one minute radius, approx. 2.0km, of the mapped location

Directions:

West Glacier Trail; west side of Mendenhall Glacier; trail to Mendenhall Lake.

General description:

Elevation: 30M

Element occurrence data:

Growing with Arabis Epilobium, Salix, mosses, and lichens. Draba maxima common, flowers white.

Date last observed: 1970-06-30

SPECIMENS: 1975 ROBUCK, W. 1524. JUNEAU FSL

TONGASS NATIONAL FOREST

003 SKAGWAY 59 28 24N 135 17 06W

Mapping precision: Precision within a one minute radius, approx. 2.0km, of the mapped location

Directions:

Near Goldrush Cemetery, Skagway, along railroad track.

General description:

Along railroad track near Goldrush Cemetery, Skagway.

Elevation: 100M

Element occurrence data:

Plants 20 - 40 cm tall, flowers white, growing with Oxytropis campestris, Rubus idaeus, and Ribes laxiflorum.

Date last observed: 1974-06-14

SPECIMENS: HULTÉN, E.; ANDERSON, J.P. 8110A,71. S (according to Hultén, 1941)

TONGASS NATIONAL FOREST

004 MENDENHALL GLACIER 58 25 30N 134 31 55W

Mapping precision: Precision within 10km of the mapped location

Directions:

Mendenhall Glacier, Juneau.

General description:

None available.

Elevation: 155M

Date last observed: Unknown

SPECIMENS: ROBUCK, W. 1012. JUNEAU FSL

TONGASS NATIONAL FOREST

005 FOOT OF "HOGBACK", NEAR JUNEAU.

Mapping precision: Unmappable

Directions:

Foot of hogback, near Juneau.

General description:

Foot of hogback, near Juneau.

Elevation: Unknown

Date last observed: 1899

SPECIMENS: 1899 COVILLE, F.V.; KEARNEY, T.H. 598. US

NOT ON FOREST SERVICE LAND

006 SKAGWAY 59 27 46N 135 17 48W

Mapping precision: Precision within 10km of the mapped location

Directions:

Skagway.

General description:

Skagway.

Elevation: 230M

Date last observed: Unknown

SPECIMENS: 1946 STONEHOUSE, L. WTU

NOT ON FOREST SERVICE LAND

007 PORT VITA

Mapping precision: Precision within 10km of the mapped location

Directions:

Port Vita, Raspberry Strait, Raspberry Island, Kodiak Island group.

General description:

In slate rock crevice.

Elevation: Unknown

Date last observed: 1945-06-25

SPECIMENS: 1970 ROBUCK, W. 1012. JUNEAU FSL

NOT ON FOREST SERVICE LAND

008 JUNEAU 58 18 41N 134 24 03W

Mapping precision: Precision within 10km of the mapped location

Directions:

Juneau.

General description:

Among rocks.

Elevation: Unknown

Date last observed: 1940-06-18

SPECIMENS: 1974 ROBUCK, W. 1426. JUNEAU FSL

NOT ON FOREST SERVICE LAND

009 HALIBUT COVE 59 36 11N 151 09 49W

Mapping precision: Precision within 10km of the mapped location

Directions:

Halibut Cove, Cook Inlet.

General description:

Open rocky area.

Elevation: 30M

Date last observed: 1899-07-21

SPECIMENS: 1974 ROBUCK, W. 1426. JUNEAU FSL

NOT ON FOREST SERVICE LAND

LITERATURE:

Douglas, G.W., G. Straley, and D. Meidinger (eds). 1989. The vascular plants of British Columbia. Part 1 - Gymnosperms and Dicotyledons (Aceraceae through Cucurbitaceae). British Columbia Ministry of Forests, Research Branch, Victoria, British Columbia, Canada. 208 p.

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- Mulligan, G.A. 1970. Cytotaxonomic studies of Draba glabella and its close allies in Canada and Alaska. Canad. J. Bot. 48(8):1431-1437.
- Welsh, S.L., and J.K. Rigby. 1971. Botanical and physiographic reconnaissance of northern British Columbia. Brigham Young Univ. Sci. Bull. 14(4).
- Welsh, S.L. 1974. Anderson's flora of Alaska and adjacent parts of Canada. Brigham Young Univ. Press, Provo, UT. 724 p.

SPECIES DESCRIPTION
DRABA KAMTSCHATICA

TAXONOMY:

Scientific name: Draba kamtschatica (Ledeb.) N. Busch
Common name: KAMCHATKA ROCKCRESS
Family: BRASSICACEAE
Synonyms: Draba lonchocarpa ssp kamtschatica
D. nivalis Lilj.

Taxonomic comments:

Recognized as a distinct species by Hultén, 1941, 1968, Tolmachev, 1975, and Kartesz, 1989. Treated as a subspecies of Draba lonchocarpa by Berkutenko (in Kharkevich, 1985) and by Calder & Taylor, 1968. Calder and Taylor considered it a coastal phase of the species, distinguished from the inland typical phase by the stellate pubescence on the scapes and the loosely caespitose habit of the basal rosette. Included along with D. lonchocarpa by Draba nivalis Lilj. in Welsh, 1974.

Diagnostic characteristics:

In a large genus of about 270 species, this species is characterized by its white flowers, one to three stem leaves, loosely tufted rosette, twisted elongate silicles, and stellate-pubescent scapes (Calder & Taylor, 1968).

Similar species:

Similar to D. nivalis and D. lonchocarpa, from which it is distinguished by its 1-3 cauline leaves (Calder & Taylor, 1968).

RANKING:

Global rank: G3Q

Global ranking comments:

Four documented occurrences in North America, with probably over twice that number in East Asia.

State rank: S2

State ranking comments

Only four documented occurrences in Alaska, but likely to be found to be more widespread.

DISTRIBUTION AND ABUNDANCE:

Range:

Global range comments:

Limited to Soviet Far East, eastern Siberia, Southcentral Alaska, and the Queen Charlotte Islands of British Columbia.

State range comments:

Limited to Southcentral Alaska, to be expected in Southeast, Seward Peninsula, and the Aleutians.

Abundance:

Global abundance comments:

Unknown, inventory needed.

State abundance comments:

Unknown, inventory needed.

Habitat:

Global habitat:

Rocky alpine.

State habitat:

Alpine talus and rock outcrops.

INFORMATION NEEDS:

Inventory needs:

Global inventory needs:

Verify and assess status of known populations in North America and East Asia, survey likely habitat within known range for new occurrences.

State inventory needs:

Verify and assess status of known populations, survey similar habitat on the Seward Peninsula, Southeast Alaska, and the Aleutians.

PROTECTION:

Status:

No occurrences known to receive special protection.

Needs:

Global protection needs:

Protect known American populations.

State protection needs:

Protect documented occurrences.

DOCUMENTED OCCURRENCES ON OR NEAR ALASKA FOREST SERVICE LANDS:

001 KENAI PENINSULA

Mapping precision: Unmappable

Directions:

Kenai Peninsula (according to Hultén, 1941).

General description:

No information available.

Elevation: Unknown

Date last observed: Unknown

CHUGACH NATIONAL FOREST

LITERATURE:

Calder, J.A., and R.L. Taylor. 1968. Flora of the Queen Charlotte Islands. Canad. Dept. Agric. Res. Branch Monogr. 4, Part 1.

Hultén, E. 1941-1950. Flora of Alaska and Yukon. 1-10. Lunds Univ. Arsskr. N.F. Avd. 2, Vol. 37-46. 1,902 p.

Hultén, E. 1968. Flora of Alaska and neighboring territories. Stanford Univ. Press, Stanford, CA. 1,008 p.

Hultén, E. 1973. Supplement to flora of Alaska and neighboring territories: A study in the flora of Alaska and the transberingian connection. Bot. Not. 126:459-512.

Kartesz, J.T. 1989. Working draft of vascular plants of Alaska. The Nature Conservancy, Arlington, Virginia. 71 p.

Kharkevich, S.S. (ed.). 1985-1989. Sosudistye rasteniya Sovetskogo Dalnego Vostoka. (Vascular plants of the Soviet Far East.) Vol. 1-4. Nauka, Leningrad, USSR.

Tolmachev, A.I., and B.A. Yurtzev (eds.). 1960-1987. Flora arctica URSS [Arkticheskaya flora SSSR], Volumes I-X. Akademiya Nauka, Leningrad, USSR. [In Russian.]

Welsh, S.L. 1974. Anderson's flora of Alaska and adjacent parts of Canada. Brigham Young Univ. Press, Provo, UT. 724 p.

SPECIES DESCRIPTION
DRABA KANANASKIS

TAXONOMY:

Scientific name: *Draba kananaskis* Mulligan
Common name: TUNDRA WHITLOW-GRASS
Family: BRASSICACEAE

Taxonomic comments:

A distinct species as described by Mulligan, 1970.

Diagnostic characteristics:

In a large genus of about 270 species, this species is characterized by its yellow flowers, one or two stem leaves, loosely tufted rosette, and nearly sessile cruciform hairs on the surface of the basal leaves. It is octoploid with a base number of $x=8$ (Mulligan, 1970).

Similar species:

Draba kananaskis is easily confused with the other yellow-flowered species of the genus, but is distinguished from them by the presence of sessile cruciform leaf hairs (Mulligan, 1976a).

RANKING:

Global rank: G1

Global ranking comments:

Only one element occurrence documented for Alberta, one for Alaska.

State rank: S1

State ranking comments

Single occurrence within the state.

DISTRIBUTION AND ABUNDANCE:

Range:

Global range comments:

Endemic to southwest Alberta, Canada; with one disjunct population in southcentral Alaska.

State range comments:

Single occurrence in the state, in Kenai Peninsula alpine.

Abundance:

Global abundance comments:

The documented Alaska population was said to be very small [herbarium label describes the plant as "rare" (Calder, 1951, DAO)]; with this and the limited number of collections, it may be assumed that there are very few individuals, worldwide.

State abundance comments:

Single collection where species is indicated as "rare" would indicate a limited number of individuals.

Habitat:

Global habitat:

Rocky alpine slopes.

State habitat:

Scree slopes.

INFORMATION NEEDS:

Inventory needs:

Global inventory needs:

Present data based on literature and some herbarium records. Needs field verification.

State inventory needs:

Size and extent of known population needs to be assessed; similar habitat on the Kenai Peninsula needs to be surveyed for additional occurrences.

PROTECTION:

Status:

Single documented Canadian population is not protected, single documented Alaskan population receives no special protection.

Needs:

Global protection needs:

Protect all documented occurrences.

State protection needs:

Protect single known population from possible activity around abandoned mine and from excessive recreational use near element occurrence. Location of element occurrence should not be publicized.

DOCUMENTED OCCURRENCES ON OR NEAR ALASKA FOREST SERVICE LANDS:

001 PALMER CREEK VALLEY 60 46 05N 149 33 23W

Mapping precision: Precision within a one minute radius, approx. 2.0km, of the mapped location

Directions:

"near mine at head of Palmer Creek Valley Southeast of Hope, AK at about 1130 m. (3700 ft.) elevation" (label, Calder 1951, DAO).

General description:

An area of sparsely vegetated shale scree and rocky ledges, above mining claim and unimproved road in Chugach National Forest.

Elevation: 1130M

Element occurrence data:

D. kananaskis "rare on upper, rocky ledges and on bare shale. Flowers pale yellow" (label, Calder 1951, DAO).

Date last observed: 1951-07-26-27

SPECIMENS: 1951 CALDER, J.A. DAO

CHUGACH NATIONAL FOREST

LITERATURE:

Lipkin, R., and Dawe, J.C. 1986. An unpublished rare plant database prepared for the Bureau of Land Management.

Mulligan, G.A. 1970. A new species of Draba in the Kananaskis of southwestern Alberta. Canad. J. Bot. 48:1897-1898.

Mulligan, G.A. 1976a. The genus Draba in Canada and Alaska: Key and summary. Canad. J. Bot. 54(12):1386-1393.

Mulligan, G.A. 1976b. Letter from G.A. Mulligan to Dave Murray concerning identification of J.A. Calder specimen from Kenai as Draba kananaskis.

Muller, M.C. 1981. A working list of sensitive plants for the Tongass and Chugach National Forests. Unpubl. report to the U.S. Forest Service. 4 p.

Murray, D.F., and R. Lipkin. 1987. Candidate threatened and endangered plants of Alaska with comments on other rare plants. Univ. of Alaska Museum, Fairbanks, AK. 76 p.

SPECIES DESCRIPTION
DRABA RUAXES

TAXONOMY:

Scientific name: *Draba ruaxes* Payson & St. John
Common name: RAINIER WHITLOW-GRASS
Family: BRASSICACEAE
Synonyms: *D. ventosa* ssp *ruaxes* (Payson & St. John) Hitchc.
D. exalata Ekman

Taxonomic comments:

A distinct species, monographed by Mulligan in 1971. Previously considered a subspecies of *D. ventosa* A. Gray, but shown by Mulligan to be a specifically distinct, sexual outcrossing, hexaploid species (while *D. ventosa* is an agamosperous triploid species). Included in *D. exalata* in Hultén, 1968. Recognized as a distinct species in Kartesz, 1989.

Diagnostic characteristics:

Only undersurface of leaves with long-stalked stellate hairs, upper surface of leaves with long, simple or once- or twice-forked hairs; stem and pedicels with simple, rarely forked hairs; leaves greater than 2 mm broad (Mulligan, 1971).

Similar species:

Similar to *D. ventosa* and *D. paysonii*, from which it can be distinguished by its long-stalked stellate hairs only on undersurface of leaves, its upper leaf surface with long, simple or once- or twice-forked hairs, its stem and pedicels with simple, rarely forked hairs, and leaves greater than 2 mm broad (Mulligan, 1971).

RANKING:

Global rank: G2

Global ranking comments:

At least 15 documented occurrences worldwide.

State rank: S2

State ranking comments

Nine estimated occurrences within the state.

DISTRIBUTION AND ABUNDANCE:

Range:

Global range comments:

One occurrence in northwest Washington, two in British Columbia, three in Yukon Territory, and nine occurrences in Alaska.

State range comments:

Ranges from northern Southeast Alaska to Alaska Range.

Abundance:

Global abundance comments:

Unknown, inventory needed.

State abundance comments:

Unknown, inventory needed.

Habitat:

Global habitat:

Bare loose alpine talus slopes.

State habitat:

Alpine scree and talus slopes.

INFORMATION NEEDS:

Inventory needs:

Global inventory needs:

Known occurrences need to be verified and population size and extent determined. Similar habitat within range should be examined for new occurrences.

State inventory needs:

Locate known occurrences and determine status of populations. Visit likely habitat within range for new occurrences.

PROTECTION:

Status:

Occurrences in Glacier Bay and Denali National Parks, neither known to receive special protection.

Needs:

Global protection needs:

Protect all known occurrences.

State protection needs:

Protect known occurrences.

DOCUMENTED OCCURRENCES ON OR NEAR ALASKA FOREST SERVICE LANDS:

001 MT CRILLON 58 39 55N 137 13 06W

Mapping precision: Precision within 10km of the mapped location

Directions:

Mt. Crillon, Glacier Bay.

General description:

None available.

Elevation: 2900M

Date last observed: Unknown

SPECIMENS: BATES, R. 69. GH (according to Hultén, 1941)

NOT ON FOREST SERVICE LAND

LITERATURE:

Abrams, L., and R.S. Ferris. 1923. Illustrated flora of the Pacific states. Vols. I-IV. Stanford Univ. Press. 2771 p.

Douglas, G.W., and G. Ruyle-Douglas. 1978. Contributions to the floras of British Columbia and the Yukon Territory. I. Vascular plants. *Canad. J. Bot.* 56:2296-2302.

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Hultén, E. 1973. Supplement to flora of Alaska and neighboring territories: A study in the flora of Alaska and the transberingian connection. *Bot. Not.* 126:459-512.

Kartesz, J.T. 1989. Working draft of vascular plants of Alaska. The Nature Conservancy, Arlington, Virginia. 71 p.

Mulligan, G.A. 1971. Cytotaxonomic studies of *Draba* species of Canada and Alaska: *D. ventosa*, *D. ruaxes*, and *D. paysonii*. *Canad. J. Bot.* 49:1455-1460.

Mulligan, G.A. 1976. The genus Draba in Canada and Alaska: Key and summary. *Canad. J. Bot.* 54(12):1386-1393.

Muller, M.C. 1991. Preliminary sensitive plant list, Tongass National Forest. Unpubl. U.S. Forest Service document. 6 p.

Murray, D.F. 1980. Threatened and endangered plants of Alaska. U.S. Forest Service and Bureau of Land Management. 59 p.

Murray, D.F., and R. Lipkin. 1987. Candidate threatened and endangered plants of Alaska with comments on other rare plants. Univ. of Alaska Museum, Fairbanks, AK. 76 p.

Welsh, S.L. 1974. Anderson's flora of Alaska and adjacent parts of Canada. Brigham Young Univ. Press, Provo, UT. 724 p.

SPECIES DESCRIPTION
GENTIANELLA PROPINQUA SSP ALEUTICA

TAXONOMY:

Scientific name: Gentianella propinqua ssp aleutica (Cham. & Schlecht.) J. Gillett
Common name: ALEUTIAN FOUR-PARTED GENTIAN
Family: GENTIANACEAE
Synonyms: Gentiana aleutica Cham. & Schlecht.

Taxonomic comments:

Treated as Gentiana aleutica Cham. & Schlecht. in Hultén, 1968. Recognized as a distinct subspecies in Kartesz, 1989.

Diagnostic characteristics:

Distinguished from other members of the genus by its flowers in terminal cymes, corolla without fringe within, and by its terminal flowers subequal to lateral ones (Welsh, 1974).

Similar species:

Similar to typical variety of G. propinqua, but with shorter terminal flowers, about as long as lateral flowers, corolla lobes obtuse and somewhat denticulate, pale violet to white rather than blue (Welsh, 1974).

RANKING:

Global rank: G5T2T4

Global ranking comments:

Only ten documented occurrences would indicate a rank of T2, but it is likely that the subspecies is more widespread in remote areas.

State rank: S2S4

State ranking comments

Only ten documented occurrences would indicate a rank of S2, but the likelihood that the subspecies is more widespread in remote areas would justify a rank of S4. Until the real distribution and abundance of the taxon is known in this remote region, the rank of S2S4 must be assigned.

DISTRIBUTION AND ABUNDANCE:

Range:

Global range comments:

Occurs along the Aleutian chain to Kodiak Island to northern Southeast Alaska.

State range comments:

Occurs along the Aleutian chain to Kodiak Island to northern Southeast Alaska.

Abundance:

Global abundance comments:

Unknown, inventory needed.

State abundance comments:

Unknown, inventory needed.

Habitat:

Global habitat:

Coastal alpine tundra; stony and mossy places, dry gullies and in grassy patches in gravel.

State habitat:

On moist scree of alpine habitats.

INFORMATION NEEDS:

Inventory needs:

Global inventory needs:

A thorough inventory of the appropriate habitat within the subspecies' overall range must be conducted to determine the taxon's true rareness.

State inventory needs:

A thorough inventory of the appropriate habitat within the subspecies' overall range must be conducted to determine the taxon's true rareness.

PROTECTION:

Status:

Several occurrences in the Alaska Maritime National Wildlife Refuge, but none receive special protection.

Needs:

Global protection needs:

Protect non-Aleutian populations of Kodiak Island and Southeast Alaska.

State protection needs:

Protect non-Aleutian populations of Kodiak Island and Southeast Alaska.

DOCUMENTED OCCURRENCES ON OR NEAR ALASKA FOREST SERVICE LANDS:

001 MT. ROBERTS 58 17 04N 134 19 38W

Mapping precision: Precision within 10km of the mapped location

Directions:

High on Mt. Roberts.

General description:

In grass.

Elevation: 1005M

Element occurrence data:

In grass.

Date last observed: 1950-08-13

SPECIMENS: ANDERSON, J.P. 2139. US (according to Hultén, 1941)
1950 WILLIAMS, M. 001. JUN. BOT. CLUB HERB.

NOT ON FOREST SERVICE LAND

002 OLGA BAY

Mapping precision: Precision within 10km of the mapped location

Directions:

Olga Bay, alpine meadow, Kodiak Island.

General description:

Alpine meadow.

Elevation: Unknown

Date last observed: 1938-08

SPECIMENS: 1961 LOOFF, M.B. & E.H. 530. UBC

NOT ON FOREST SERVICE LAND

LITERATURE:

Douglas, G.W., G.B. Straley, and D. Meidinger (eds.). 1990. The vascular plants of British Columbia, Part 2 - Dicotyledons (Diapensiaceae through Portulacaceae). British Columbia Ministry of Forests, Research Branch. 158 p.

Gillett, J.M. 1957. A revision of the North American species of Gentianella Moench. Ann. Missouri Bot. Gard. 44:195-269.

Hultén, E. 1941-1950. Flora of Alaska and Yukon. 1-10. Lunds Univ. Arsskr. N.F. Avd. 2, Vol. 37-46. 1,902 p.

Hultén, E. 1968. Flora of Alaska and neighboring territories. Stanford Univ. Press, Stanford, CA. 1,008 p.

Juday, G.P., P. Alaback, and M. Orme. 1988. Research Natural Area proposals for the Tongass Forest plan revision. Report of the Research Natural Area Steering Committee, Results of Research Natural Areas Workshops; May 24-25 and July 29, 1989. U.S. Forest Service, Juneau, AK. 79 p. + 4 appendices.

Kartesz, J.T. 1989. Working draft of vascular plants of Alaska. The Nature Conservancy, Arlington, Virginia. 71 p.

Murray, D.F. 1980. Threatened and endangered plants of Alaska. U.S. Forest Service and Bureau of Land Management. 59 p.

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Muller, M.C. 1991. Preliminary sensitive plant list, Tongass National Forest. Unpubl. U.S. Forest Service document. 6 p.

Welsh, S.L. 1974. Anderson's flora of Alaska and adjacent parts of Canada. Brigham Young Univ. Press, Provo, UT. 724 p.

Williams, M. 1978. Letter to Mary Clay Muller from Maxcine Williams concerning Gentianella propinqua var. aleutica and Asplenium trichomanes in southeast Alaska.

SPECIES DESCRIPTION
GLYCERIA LEPTOSTACHYA

TAXONOMY:

Scientific name: Glyceria leptostachya S. B. Buckley
Common name: DAVY MANNAGRASS
Family: POACEAE

Taxonomic comments:
A distinct species.

Diagnostic characteristics:

Perennial grass with long (10 mm or longer) linear spikelets and narrow erect panicle; lemmas scabrous on nerves, somewhat scabrous between nerves (Hultén, 1968).

Similar species:

Similar to G. borealis, but stouter, and with scabrous lemmas.

RANKING:

Global rank: G3

Global ranking comments:

Occurs infrequently, in small numbers, across a fairly large region.

State rank: S1S2

State ranking comments

Limited to two documented occurrences, but it is easily overlooked and likely to be more widespread in Southeast.

DISTRIBUTION AND ABUNDANCE:

Range:

Global range comments:

Spotty distribution from Southeast Alaska to central California.

State range comments:

Limited to central and southern Southeast Alaska.

Abundance:

Global abundance comments:

Unknown, but the fact that it has been seldom collected would indicate that it does not occur in large numbers.

State abundance comments:

Unknown, inventory needed.

Habitat:

Global habitat:

Swamps; stream and lake margins.

State habitat:

Wet lowland habitats.

INFORMATION NEEDS:

Inventory needs:

Global inventory needs:

Survey known populations and search similar habitat for additional populations within the species' overall range.

State inventory needs:

Verify documented populations and determine status. Survey similar habitat within known range for additional occurrences.

PROTECTION:

Status:

Protection status unknown.

Needs:

Global protection needs:

Protect occurrences at the limit of the species range.

State protection needs:

Protect both documented occurrences until true nature of species' rarity within the state is known.

DOCUMENTED OCCURRENCES ON OR NEAR ALASKA FOREST SERVICE LANDS:

001 WRANGELL 56 27 45N 132 22 17W

Mapping precision: Precision within 10km of the mapped location

Directions:

Wrangell vicinity.

General description:

Not available.

Elevation: 35M

Date last observed: 1939-07-07

SPECIMENS: 1939 ANDERSON, J.P. 5639. ALA; S; US

TONGASS NATIONAL FOREST

002 CONTROL LAKE VICINITY 55 40 58N 132 50 26W

Mapping precision: Precision within a one minute radius, approx. 2.0km, of the mapped location

Directions:

Prince of Wales Island, .25 mi. southwest of Road 5500, about 2 mi. NW of Control Lake intersection.

Elevation: 152M

Element occurrence data:

Along stream in forest.

Date last observed: 1979-08-01

SPECIMENS: 1979 VOROBİK, L. 539. ALA

TONGASS NATIONAL FOREST

LITERATURE:

Abrams, L., and R.S. Ferris. 1923. Illustrated flora of the Pacific states. Vols. I-IV. Stanford Univ. Press. 2771 p.

Douglas, G.W. 1991. Rare, endangered, and threatened native vascular plants of British Columbia. Draft report prepared for Research Branch, B.C. Ministry of Forests, Victoria, B.C., by Douglas Ecological Consultants Ltd., Duncan, B.C. 85 p.

Hall, J., and P. Alaback. 1992 (In press). Native plants of southern Alaska. Univ. of Alaska Press, Fairbanks, AK.

Hitchcock, A.S., and A. Chase. 1950. Manual of the grasses of the United States. Second revised edition. [Reprinted in 1971.] Dover Publications, New York, NY. 1041 p.

Hitchcock, C.L., A. Cronquist, M. Ownby, and J.W. Thomson. 1955-1969. Vascular plants of the Pacific Northwest. Parts 1-5. Univ. Washington Press, Seattle, WA.

Hultén, E. 1941-1950. Flora of Alaska and Yukon. 1-10. Lunds Univ. Arsskr. N.F. Avd. 2, Vol. 37-46. 1,902 p.

Hultén, E. 1968. Flora of Alaska and neighboring territories. Stanford Univ. Press, Stanford, CA. 1,008 p.

Juday, G.P., P. Alaback, and M. Orme. 1988. Research Natural Area proposals for the Tongass Forest plan revision. Report of the Research Natural Area Steering Committee, Results of Research Natural Areas Workshops; May 24-25 and July 29, 1989. U.S. Forest Service, Juneau, AK. 79 p. + 4 appendices.

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Muller, M.C. 1991. Preliminary sensitive plant list, Tongass National Forest. Unpubl. U.S. Forest Service document. 6 p.

Vorobik, L.A. 1980. Field season 1979 rare and endangered plant species report for Tongass National Forest, Ketchikan Region. Unpubl. rep. U.S. Forest Service. 165 p.

Welsh, S.L. 1974. Anderson's flora of Alaska and adjacent parts of Canada. Brigham Young Univ. Press, Provo, UT. 724 p.

SPECIES DESCRIPTION
HYMENOPHYLLUM WRIGHTII

TAXONOMY:

Scientific name: Hymenophyllum wrightii Bosch
Common name: WRIGHT'S FILMY-FERN
Family: HYMENOPHYLLACEAE
Synonyms: Mecodium wrightii (Bosch) Copeland

Taxonomic comments:

A distinct species, included by some taxonomists (Hultén, 1968; Ohwi, 1965) in the genus Mecodium. Recognized as a distinct species by Kartesz, 1989.

Diagnostic characteristics:

Stipes of sporophytes scarcely winged, stipes and blades very thinly hairy, pinnae disposed at an acute angle on the rachis, simple or the segments 2-5, elongate, 1.2-1.7 mm wide. (Ohwi, 1965)

Similar species:

Gametophyte superficially resembles various moss and liverwort species, but bearing deciduous marginal cell-masses; leaves +/- single-celled thick (Hultén, 1968).

RANKING:

Global rank: G3G4

Global ranking comments:

13 element occurrences documented in North America, but species possibly overlooked rather than rare.

State rank: S1

State ranking comments

Limited to three documented occurrences in Alaska.

DISTRIBUTION AND ABUNDANCE:

Range:

Global range comments:

Coastal Southeastern Alaska and coastal British Columbia; northern Japan and Korea; Soviet Far East.

State range comments:

Limited to Biorca and Mitkof Islands of Southeast Alaska.

Abundance:

Global abundance comments:

Unknown, common on the island of Honshu, Japan.

State abundance comments:

Only gametophytes collected from Alaska, difficult to identify individuals. Documented occurrences limited to small populations.

Habitat:

Global habitat:

Humid, shaded boulders, cliffs, tree trunks; damp woods.

State habitat:

On base of trees and rock outcrops in damp humid woods.

INFORMATION NEEDS:

Inventory needs:

Global inventory needs:

Present data based on literature and some herbarium records. Needs field verification. Survey similar habitat within North American range for additional occurrences.

State inventory needs:

Locate documented occurrences and assess population status. Search for additional occurrences within similar habitat in Southeast.

PROTECTION:

Status:

Several occurrences on the Tongass National Forest of Alaska, but receive no special protection.

Needs:

Global protection needs:

Protect all documented North American occurrences.

State protection needs:

Protect all known occurrences.

DOCUMENTED OCCURRENCES ON OR NEAR ALASKA FOREST SERVICE LANDS:

001 BIORKA ISLAND 56 51 32N 135 31 16W

Mapping precision: Precision within 10km of the mapped location

Directions:

Biorka Island.

General description:

No information available.

Elevation: 30.5M

Date last observed: 1965-06-30

SPECIMENS: 1965 MATHIESON, A. SN. UBC

TONGASS NATIONAL FOREST

002 MITKOF HIGHWAY 56 43 12N 132 55 01W

Mapping precision: Precision within a one minute radius, approx. 2.0km, of the mapped location

Directions:

Mitkof Island, ca. 7 mi. S of Petersburg, Mitkof Highway.

General description:

On earth of cliff shelves in stream gully.

Elevation: 91.5M

Element occurrence data:

Prothallus among mosses.

Date last observed: 1968-06-23

SPECIMENS: 1968 WORLEY, I.A.; SCHOFIELD, W.B. 8708. UBC

TONGASS NATIONAL FOREST

003 MITKOF HIGHWAY 56 32 57N 132 39 40W

Mapping precision: Precision within a one minute radius, approx. 2.0km, of the mapped location

Directions:

Mitkof Island, 27 mi. S of Petersburg on Mitkof Highway, in shaded cliff crevices.

General description:

In shaded cliff crevices.

Elevation: 91.5M

Date last observed: 1968-06-24

SPECIMENS: 1968 WORLEY, I.A.; SCOFIELD, W.B. 8708. UBC

NOT ON FOREST SERVICE LAND

LITERATURE:

Calder, J.A., and R.L. Taylor. 1968. Flora of the Queen Charlotte Islands. Canad. Dept. Agric. Res. Branch Monogr. 4, Part 1.

Cordes, L.D., and V.J. Krajina. 1968. Mecodium wrightii on Vancouver Island. Amer. Fern J. 58:181.

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SPECIES DESCRIPTION
ISOETES TRUNCATA

TAXONOMY:

Scientific name: Isoetes truncata (A.A. Eat.) Clute
Common name: TRUNCATE QUILLWORT
Family: ISOETACEAE
Synonyms: Isoetes echinospora Dur.

Taxonomic comments:

Considered by some workers to be a sterile (triploid, 2n-33) hybrid (with aborted spores) between diploid I. echinospora and tetraploid I. maritima (Britton, 1991). Recognized as a distinct species by Kartesz, 1989.

Diagnostic characteristics:

Gynospores covered with thick, blunt spines; androspores papillate, stomata numerous, plant coarse, with leaves up to 13 cm long. (Hultén, 1968)

Similar species:

Similar to I. echinospora and I. maritima, but with gynospores thickly covered with truncate columns or blunt spines.

RANKING:

Global rank: G1G2Q

Global ranking comments:

Only a few, widely isolated populations of the species are known to exist. Taxonomically questionable.

State rank: S1

State ranking comments

Two verified occurrences in the state.

DISTRIBUTION AND ABUNDANCE:

Range:

Global range comments:

Verified collections from Southcentral Alaska and Vancouver Island.

State range comments:

Verified occurrences limited to Southcentral Alaska.

Abundance:

Global abundance comments:

Plants often overlooked, may be more widespread than previously thought.

State abundance comments:

Unknown. Individuals easily overlooked.

Habitat:

Global habitat:

Shallow water.

State habitat:

Rooted aquatic in shallows of lakes and streams.

INFORMATION NEEDS:

Inventory needs:

Global inventory needs:

Species likely overlooked. Knowledge very incomplete as to overall distribution. Field surveys needed throughout known range.

State inventory needs:

Shallow aquatic habitats of Southcentral Alaska need to be examined more closely for individuals of this species. Known populations of species need be located and their size and extent determined.

PROTECTION:

Status:

Two occurrences on U.S. Forest Service land, but receive no special protection.

Needs:

Global protection needs:

Protect all verified occurrences until taxonomic questions are resolved.

State protection needs:

Protect all known occurrences until taxonomic questions concerning the validity of the species are resolved.

DOCUMENTED OCCURRENCES ON OR NEAR ALASKA FOREST SERVICE LANDS:

001 COPPER RIVER DELTA 60 25 47N 145 18 17W

Mapping precision: Precision within a one minute radius, approx. 2.0KM, of the mapped location

Directions:

Copper River Delta, transect 7-18 pond of USFS study.

General description:

In shallow water of small pond.

Elevation: 001M

Element occurrence data:

Aquatic, with Sparganium.

Date last observed: 1979-07-19

SPECIMENS: 1979 THILENIUS, J.; DALL, D. SN. JUNEAU FSL

CHUGACH NATIONAL FOREST

002 BIG PORT WALTER 56 23 54N 134 39 39W

Mapping precision: Precision within a one minute radius, approx. 2.0KM, of the mapped location

Directions:

South end of Baranof Island, near Big Port Walter, growing in Osprey Lake near the outlet log jam.

General description:

Aquatic growing in Osprey Lake near the outlet log jam.

Elevation: 10M

Date last observed: 1979-08-30

SPECIMENS: 1979 CRONE, D.; MULLER, M.C. 3410. ALA

TONGASS NATIONAL FOREST

003 KODIAK

Mapping precision: Unmappable

Directions:

Kodiak Island.

General description:

No information available.

Elevation: Unknown

Date last observed: 1899-07-20

SPECIMENS: 1899 COVILLE, F.V.; KEARNEY, T.H. 2336. WTU

NOT ON FOREST SERVICE LAND

LITERATURE:

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SPECIES DESCRIPTION
LIGUSTICUM CALDERI

TAXONOMY:

Scientific name: Ligusticum calderi Mathias & Constance
Common name: CALDER LOVAGE
Family: APIACEAE

Taxonomic comments:

A distinct species; often confused in the field with Conioselinum pacificum, from which it differs by its fibrous root crown (Hultén, 1973).

Diagnostic characteristics:

Umbelliferous non-rhizomatous plant with compact umbel and ternate pinnate leaves, serrate leaflets, and fibrous root crown (Calder & Taylor, 1968).

Similar species:

This species is often confused with the more common and widespread Conioselinum pacificum, from which it can easily be distinguished by its fibrous root crown (Calder & Taylor, 1968).

RANKING:

Global rank: G3

Global ranking comments:

Twenty-seven element occurrences documented.

State rank: S1

State ranking comments

Limited to two widely disjunct occurrences in the state. May prove to be more widespread on the remote outer islands of Southeast.

DISTRIBUTION AND ABUNDANCE:

Range:

Global range comments:

British Columbia: Vancouver Island, Queen Charlotte Islands and neighboring islands; Alaska: Kodiak Island of Southcentral and Dall Island of Southeast.

State range comments:

Occurrences limited to Pleistocene refugia of Southcentral and Southeast Alaska.

Abundance:

Global abundance comments:
Unknown, inventory needed.

State abundance comments:
Unknown, inventory needed.

Habitat:

Global habitat:

Rocky cliffs, open boggy or rocky slopes, and edges of coniferous forests.

State habitat:

Known in Alaska from alpine habitats and margins of subalpine mixed coniferous forest.

INFORMATION NEEDS:

Inventory needs:

Global inventory needs:

Present data based on literature and some herbarium records.
Needs field verification.

State inventory needs:

Survey refugial alpine areas of Southeast Alaska for additional populations. Survey documented Dall Island and Kodiak Island occurrences to determine population size and extent.

PROTECTION:

Status:

No occurrences known to receive special protection.

Needs:

Global protection needs:

Protect disjunct occurrences at limit of species' range.

State protection needs:

Protect all documented occurrences.

DOCUMENTED OCCURRENCES ON OR NEAR ALASKA FOREST SERVICE LANDS:

001 GRACE MOUNTAIN 54 54 55N 132 57 05W

Mapping precision: Precision within a one minute radius, approx. 2.0KM, of the mapped location

Directions:

Grace Mountain, east-central Dall Island, about 250M SSW of peak 2443.

General description:

Just inside mixed conifer subalpine forest; in an area of alpine meadows, limestone outcrops, and small ponds in relatively level area between exposed limestone spine of Grace Mountain and mixed conifer forest below (label, Muller, 1990, ALA).

Elevation: 640M

Element occurrence data:

Locally abundant, on limestone substrate.

Date last observed: 1990-08-17

SPECIMENS: 1990. MULLER. ALA

TONGASS NATIONAL FOREST

LITERATURE:

Argus, G.W., and K.M. Pryer. 1990. Rare vascular plants in Canada. Canada Museum of Nature, Ottawa, Ontario, Canada. 192 p. + maps.

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SPECIES DESCRIPTION
PAPAVER ALBOROSEUM

TAXONOMY:

Scientific name: Papaver alboroseum Hultén
Common name: PALE POPPY
Family: PAPAVERACEAE

Taxonomic comments:

This is a variable but distinct taxon. Similarities have been noted to P. radicatum (Welsh, 1974), P. pygmaeum (Porsild, 1951), and P. microcarpum (from Kamchatka and Chukotka). Recognized as a distinct species by Kartesz, 1989.

Diagnostic characteristics:

Low-growing poppy with white or rose petals with yellow basal spots and ovate to globose capsule with stiff setae (Hultén, 1968).

Similar species:

Similar to P. radicatum, from which it is distinguished by its decumbent scapes and small pale flowers with yellow spot at base (Welsh, 1974).

RANKING:

Global rank: G3

Global ranking comments:

There are over 30 known sites, spread over a large geographic area, but concentrated in Kamchatka and southcentral Alaska. It is reported as common from at least one of these sites. Several new sites have been reported in recent years from previously unexplored areas. It is likely that additional sites will be found within the known limits of its range.

State rank: S2S3

State ranking comments

Only 17 or 18 locations are known with any degree of confidence, but it is likely that additional sites will be found, especially in the Chugach, Kenai, and Wrangell mountains. (Two additional occurrences were encountered in the Kenai Mountains during the summer of 1991. A downward revision of SRANK to S3 may be appropriate.)

DISTRIBUTION AND ABUNDANCE:

Range:

Global range comments:

Known principally from the Kamchatka Peninsula and northern Kurile Islands (Soviet Far East) and disjunctly to southcentral Alaska. There is one known (and one unconfirmed) occurrence in the westernmost Aleutian Islands, and several known or reported locations from northwest British Columbia and southwest Yukon Territory. Within Alaska it is also known from several scattered locations in the Wrangell Mountains and western Alaska Range. Reports of *P. alboroseum* from northern Alaska (Wiggins and Thomas, 1962) are in fact of other taxa.

State range comments:

P. alboroseum is known from several widely scattered locations in southern Alaska. Most of these sites are in the Cook Inlet area, including the Chugach and Kenai Mountains. It is likely that additional sites will be found in this area. Other sites are known from the Wrangell Mountains (adjacent to the Chugach), the western Alaska Range (Denali National Park, and the upper Tonzona River), the northern Alaska Peninsula, and the westernmost Aleutian Islands.

Abundance:

Global abundance comments:

There are no accurate population figures for any of the known occurrences. Based on general comments of abundance at several sites, it seems reasonable to assume a worldwide population of at least 2-3,000 individuals; probably more, given the likely existence of additional sites.

State abundance comments:

There are no accurate population figures for any of the known occurrences. Based on general comments of abundance at several sites, it seems reasonable to assume a state-wide population of at least 2,000 individuals; probably more, given the likely existence of additional sites.

Habitat:

Global habitat:

Found on well drained soils (sand, gravel, scree, volcanic ash) and rock outcrops from sea-level to at least 2000M. Usually in alpine settings, but also in lowlands near glacial moraines, along gravel bars of glacial rivers, or along roadsides in gravel. Aspect often south or east facing slopes.

State habitat:

In well-drained rocky open habitats.

INFORMATION NEEDS:

Inventory needs:

Global inventory needs:

Known and reported locations should be verified and estimates of abundance made. Additional locations with suitable habitat within the known range of P. alboroseum should be surveyed, especially in Southcentral Alaska, Kamchatka, the Aleutians, and northwestern British Columbia.

State inventory needs:

Known and reported locations should be verified and estimates of abundance made. Additional locations with suitable habitat within the known range of P. alboroseum should be surveyed. In southcentral Alaska the Chugach and Kenai mountains are especially likely to have additional locations. Volcanic areas such as the Alaska Peninsula and Aleutian Islands are also good possibilities. Given its occurrence in northwestern British Columbia and southwestern Yukon, alpine and glacial outwash areas of southeast Alaska should also be considered.

PROTECTION:

Status:

U.S. Forest Service is aware of the occurrence of this species on Chugach National Forest land near Portage Lake.

Needs:

Global protection needs:

Discourage local gathering of plants or seeds for gardening or commercial sale; encourage use of commercially available, propagated material.

State protection needs:

Discourage local gathering of plants or seeds for gardening or commercial sale; encourage use of commercially available, propagated material.

DOCUMENTED OCCURRENCES ON OR NEAR ALASKA FOREST SERVICE LANDS:

003 PORTAGE GLACIER, MOUTH OF SMALL CANYON WEST OF GLACIER
60 46 05N 148 50 06W

Mapping precision: Precision within a one minute radius, approx. 2.0KM, of the mapped location

Directions:

Mouth of small canyon west of Portage Glacier.

General description:

Open site on gravel.

Elevation: 30.5M

Date last observed: 1968

SPECIMENS: 1968 WELSH, S.L.; MOORE, G. 8146. ALA

CHUGACH NATIONAL FOREST

004 PORTAGE GLACIER 60 46 46N 148 50 13W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Portage Glacier

General description:

On glacier gravel.

Elevation: 5M

Date last observed: 1991

SPECIMENS: 1959 GJAERVOLL, O. SN. ALA

CHUGACH NATIONAL FOREST

007 PTARMIGAN LAKE ALPINE RIDGE 60 22 54N 149 13 39W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Ptarmigan Lake, alpine ridge above lake, Kenai Peninsula.

General description:

Alpine ridge.

Elevation: 610M

Date last observed: 1952-08

SPECIMENS: 1052 KLEIN, D. 86. ALA

CHUGACH NATIONAL FOREST

008 LOWER LLEWELLYN GLACIER, BRITISH COLUMBIA 59 10 02N 134 20
11W

Mapping precision: Precision within a one minute radius, approx.
2.0KM, of the mapped location

Directions:

Lower Llewellyn Glacier, British Columbia, Camp 26 of Juneau
Icefield Project and Marble Mountain Nunataks, wet fellfields at
1500-1800M.

General description:

Wet fellfields.

Elevation: 1500-1800M

Date last observed: 1977-08-13

SPECIMENS: ANDERSON, J.H. 3123. ALA

NOT ON FOREST SERVICE LAND

009 EKLUTNA GLACIER 61 17 05N 148 57 47W

Mapping precision: Precision within a one minute radius, approx.
2.0KM, of the mapped location

Directions:

Chugach State park, Eklutna Valley, limestone knob .25 mi. north
of Eklutna Glacier.

General description:

Northeast and east faces of rock in soil pockets and crevices.

Elevation: 300-450M

Element occurrence data:

In soil pockets and crevices on rock, alder dominant.

Date last observed: 1984-07-18

SPECIMENS: MARVIN, L. 1699. ALA

NOT ON FOREST SERVICE LAND

010 PORTAGE GLACIER VISITOR CENTER VICINITY 60 47 12N 148 51 33W

Mapping precision: Precision within a one minute radius, approx. 2.0KM, of the mapped location

Directions:

0.75 mi. down road from Portage Glacier Visitor Center. Along roadside on rocks and scree.

General description:

With small Alnus and grasses on rocks and scree of roadside.

Elevation: 015M

Date last observed: 1980-07-30

SPECIMENS: 1980 HELMSTETTER, E. 80-328. ALA

CHUGACH NATIONAL FOREST

011 ROCKY & VICTOR CREEKS, KENAI LAKE 60 22 02N 149 20 49W

Mapping precision: Precision within a one minute radius, approx. 2.0KM, of the mapped location

Directions:

Open areas by Kenai Lake, between Rocky and Victor Creeks, Kenai Peninsula.

General description:

Open gravel shale areas by lake.

Elevation: 133M

Element occurrence data:

Plant common (label, Calder, 1951, DAO).

Date last observed: 1951-07-02

SPECIMENS: 1951 CALDER, J.A. 5575. DAO; V

CHUGACH NATIONAL FOREST

012 VICTOR CREEK TRIBUTARY 60 21 46N 149 19 13W

Mapping precision: Precision within a one minute radius, approx. 2.0KM, of the mapped location

Directions:

Unnamed tributary of Victor Creek 1 mi. east of Seward Highway,
0.25 mi. N of Victor Creek.

General description:

Thinly vegetated east-facing slope above Victor Creek tributary,
dominated by typical alpine and subalpine plant species, below
alder-dominated ridgetop.

Elevation: 430M

Element occurrence data:

Few scattered individuals occur on the steep, unstable, and
thinly vegetated shaley scree and sand slope of small creek.
Twelve individuals seen on slope for a distance of 0.25 miles
between Victor Creek and tributary waterfall. Associated with
typical alpine species including Silene acaulis and Minuartia sp.

Date last observed: 1991-08-09

SPECIMENS: 1991 DELAPP, J.A. 91-140. ALA

CHUGACH NATIONAL FOREST

013 PALMER CREEK VALLEY 60 46 05N 149 33 23W

Mapping precision: Precision within a one minute radius, approx.
2.0KM, of the mapped location

Directions:

First (youngest) terminal moraine of alpine glacier at head of
Palmer Creek Valley, above Swetmann Mine.

General description:

Terminal moraine at base of small alpine glacier, in level,
thinly vegetated scree and talus. On level slope of stable scree
and talus of terminal moraine at base of small alpine glacier.
Associated species include three Draba spp., Saxifraga
oppositifolia, Oxyria digyna, and Saxifraga punctata.

Elevation: 1070M

Element occurrence data:

Over 25 individuals in an area of approximately one hectare.

Date last observed: 1991-08-07

SPECIMENS: 1991 DELAPP, J.A. 91-105. ALA

CHUGACH NATIONAL FOREST

014 VICTOR CREEK, KENAI LAKE 60 21 40N 149 21 19W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Victor Creek, Kenai Lake, Kenai Peninsula.

General description:

Rocky-gravelly streambed near Kenai Lake.

Elevation: 122-150M

Element occurrence data:

Occasional along rocky-gravelly streambed, flowers white, tinged with rose, only a single plant found in flower.

Date last observed: 1951-06-04

SPECIMENS: 1951 CALDER, J.A. 5065. DAO

CHUGACH NATIONAL FOREST

015 LOWELL CREEK CANYON, SEWARD 60 05 52N 149 29 36W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Lowell Creek Canyon, Seward, Kenai Peninsula.

General description:

Along rocky-gravelly creek below treeline.

Elevation: 305M

Element occurrence data:

Occasional along rocky-gravelly creek; petals pinkish-white.

Date last observed: 1951-06-29

SPECIMENS: 1951 CALDER, J.A. 5519. DAO

NOT ON FOREST SERVICE LAND

LITERATURE:

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SPECIES DESCRIPTION
PHYLLOSPADIX SERRULATUS

TAXONOMY:

Scientific name: Phyllospadix serrulatus Ruprecht ex Ascherson
Common name: SERRULATE SURF-GRASS
Family: ZOSTERACEAE
Synonyms: Phyllospadix scouleri Hook.

Taxonomic comments:

Has been included in P. scouleri in the past, but recent isozyme and common garden work by McMillan & Phillips, 1981, indicates that this is a distinct species.

Diagnostic characteristics:

Reproductive shoot with one spathe, rhizome internodes with 2 roots, leaf tip truncate, retinacula obtuse, truncate, or retuse. (Phillips and Menez, 1988)

Similar species:

Easily confused with other species of Phyllospadix, but leaves with 5-7 longitudinal veins, and with leaf margins toothed at apex (Phillips and Menez, 1988).

RANKING:

Global rank: G3

Global ranking comments:

At least 17 global occurrences, with more likely.

State rank: S2

State ranking comments

At least nine occurrences in the state, with more likely.

DISTRIBUTION AND ABUNDANCE:

Range:

Global range comments:

Limited to the coasts of Alaska, British Columbia, Washington, and Oregon.

State range comments:

Limited to high-energy rocky coasts of Southeast and Southcentral Alaska.

Abundance:

Global abundance comments:

Unknown.

State abundance comments:

May be more widespread and common than limited collections would indicate.

Habitat:

Global habitat:

Surf-beaten rocky coasts, from +1.5 M to mean low tide level, according to Phillips and Menez, 1988.

State habitat:

On rocky coasts just above mean low tide.

INFORMATION NEEDS:

Inventory needs:

Global inventory needs:

Verify documented occurrences and survey rocky shorelines of Pacific Northwest to Southern Alaska for additional occurrences.

State inventory needs:

Verify documented occurrences and assess population size and extent. Survey similar habitat throughout Southeast and Southcentral Alaska for additional occurrences.

PROTECTION:

Status:

Occurrences on U.S. Forest Service and U.S. Fish Wildlife Service lands in Alaska, but none known to receive special protection.

Needs:

Global protection needs:

Due to nature of habitat, no special protection action is necessary at this time.

State protection needs:

Due to nature of habitat, no special protection action is necessary at this time.

DOCUMENTED OCCURRENCES ON OR NEAR ALASKA FOREST SERVICE LANDS:

001 CAPE SITKINAK

Mapping precision: Precision within 10KM of the mapped location

Directions:

Cape Sitkinak, east tip of Sitkinak Island, Trinity Islands, Kodiak group.

General description:

None available.

Elevation: 000M

Element occurrence data:

Observed at -0.15 M mean low lower water; sterile individuals observed (Phillips, 1979).

Date last observed: 1976-05-14

NOT ON FOREST SERVICE LAND

002 DOLINA POINT

Mapping precision: Precision within 10KM of the mapped location

Directions:

Dolina Point, on northwest coast of Sitkinak Island, Trinity Islands, Kodiak group.

General description:

None available.

Elevation: 000M

Element occurrence data:

Observed at +0.7 M mean low lower water; sterile individuals with several seedlings (Phillips, 1979).

Date last observed: 1976-05-14

NOT ON FOREST SERVICE LAND

003 CHIRIKOF ISLAND 55 49 26N 155 44 32W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Chirikof Island, southwest of Trinity Islands

General description:

None available.

Elevation: .1M

Element occurrence data:

Observed at +0.08 M mean low lower water; sterile individuals (Phillips, 1979).

Date last observed: 1975-05-27

NOT ON FOREST SERVICE LAND

004 SUNDSTROM ISLAND

Mapping precision: Precision within 10KM of the mapped location

Directions:

Sundstrom Island, off southwest tip of Aiaktalik Island, Kodiak Group.

General description:

None available.

Elevation: 000M

Element occurrence data:

Sterile individuals observed (Phillips, 1979).

Date last observed: 1975-05-28

NOT ON FOREST SERVICE LAND

005 CRANE COVE 56 50 58N 135 22 16W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Crane Cove, 13 mi. south of Sitka, on Baranof Island.

General description:

Rocky seashore.

Elevation: 1M

Element occurrence data:

Subtidal, sterile individuals observed (Phillips, 1979).

Date last observed: 1976-08-23

TONGASS NATIONAL FOREST

006 WHITE CLIFF ISLAND 55 54 54N 133 28 44W

Mapping precision: Precision within a one minute radius, approx.
2.0KM, of the mapped location

Directions:

White Cliff Island, east part of Davidson Inlet, south of Kosciusko Island.

General description:

Rocky coast.

Elevation: 1M

Element occurrence data:

Subtidal (?); fruiting individuals (Phillips, 1979).

Date last observed: 1975-08-06

TONGASS NATIONAL FOREST

007 ZAIKOF POINT 60 18 31N 146 55 05W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Zaikof Point, northeast tip of Montague Island, Prince William Sound.

General description:

Rocky coast.

Elevation: 000M

Element occurrence data:

Lower littoral (?); sterile individuals observed (Phillips, 1979).

Date last observed: 1972-06-29

CHUGACH NATIONAL FOREST

008 SITKA 57 02 49N 135 19 02W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Sitka

General description:

Rocky shore.

Elevation: 1M

Element occurrence data:

Carpellate flowers observed (Phillips, 1979).

Date last observed: 1899-06-17

TONGASS NATIONAL FOREST

009 MIDDLETON ISLAND 59 25 31N 146 20 20W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Middleton Island

General description:

Rocky shore.

Elevation: 000M

Element occurrence data:

Carpellate flowers present (Phillips, 1979).

Date last observed: 1936-06-10

NOT ON FOREST SERVICE LAND

LITERATURE:

Brayshaw, T.C. 1985. Pondweeds and bur-reeds and their relatives: aquatic families of monocotyledons in British Columbia. Occas. Pap. of the British Columbia Provincial Museum No. 26. Victoria, British Columbia, Canada. 167 p.

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- Welsh, S.L. 1974. Anderson's flora of Alaska and adjacent parts of Canada. Brigham Young Univ. Press, Provo, UT. 724 p.

SPECIES DESCRIPTION
PLATANThERA CHORISIANA

TAXONOMY:

Scientific name: Platanthera chorisiana (Cham.) Reichenb.
Common name: CHORISO BOG-ORCHID
Family: ORCHIDACEAE
Synonyms: Habenaria chorisiana Cham.
Limnorchis chorisiana (Cham.) J.P. Anders.

Taxonomic comments:
A distinct species.

Diagnostic characteristics:
Leaves few, perianth segments short, 1.5-2.5 mm long, spur bulbous, lip entire at the apex. (Welsh, 1974)

Similar species:
Similar to other species of Platanthera, but distinct in its stem with one or two basal leaves, stems ebracteate or with single bract; flowers green, lip ovate to orbicular. (Calder and Taylor, 1968)

RANKING:

Global rank: G2G3
Global ranking comments:
Not very widespread, occurs in specialized habitat.

State rank: S2
State ranking comments
Limited to eight documented occurrences in the state. Considered rare throughout most of its range according to Calder and Taylor, 1968.

DISTRIBUTION AND ABUNDANCE:

Range:
Global range comments:
Alaska (Juneau, Prince William Sound), Aleutian Islands (Adak, Atka, Attu, and Unalaska), British Columbia (Vancouver and Queen Charlotte Islands), and Washington. Japan and Kamchatka Peninsula (var elatior).

State range comments:
Limited to the Aleutians and Southern coastal Alaska.

Abundance:

Global abundance comments:

Most abundant on Kamchatka Peninsula and Aleutian Islands, elsewhere disjunct and infrequent.

State abundance comments:

Unknown, inventory needed.

Habitat:

Global habitat:

Heaths, swamps, and sphagnum bogs from near sea level to 500 feet.

State habitat:

In moist open habitats with acid substrates.

INFORMATION NEEDS:

Inventory needs:

Global inventory needs:

Abundance and element occurrence status from all locations.

State inventory needs:

Verify known occurrences and assess status of populations, survey Aleutians, Southcentral, and Southeast for additional occurrences.

PROTECTION:

Status:

Several occurrences in Maritime National Wildlife Refuge in the Aleutian Islands, at least one occurrence on U.S. Forest Service land. None receive special protection.

Needs:

Global protection needs:

Protect those occurrences at the limit of the range.

State protection needs:

Protect documented occurrences in the state.

DOCUMENTED OCCURRENCES ON OR NEAR ALASKA FOREST SERVICE LANDS:

001 PORT SAN JUAN, EVANS ISLAND 60 03 06N 148 04 00W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Port San Juan, Evans Island, Prince William Sound.

General description:

Port San Juan.

Elevation: Unknown

Date last observed: 1948-08

SPECIMENS: EYERDAM, W.J. 7327. S (according to Hultén, 1941)

CHUGACH NATIONAL FOREST

002 MITE COVE, YAKOBI ISLAND 58 04 14N 136 26 42W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Mite Cove, on north coast of Yakobi Island.

General description:

Mite Cove.

Elevation: 61M

Date last observed: 1942-08-01

SPECIMENS: 1942 WILLIAMS, M. JUN. BOT. CLUB HERBARIUM

TONGASS NATIONAL FOREST

003 DOUGLAS ISLAND 58 19 12N 134 37 31W

Mapping precision: Unmappable

Directions:

Douglas Island.

General description:

Douglas Island.

Elevation: 5M

Date last observed: 1941-08-28

SPECIMENS: 1941 ANDERSON, J.P. SN. (according to Hultén, 1941)

TONGASS NATIONAL FOREST

004 LISIANSKI INLET, CHICHAGOF ISLAND 57 57 45N 136 16 05W

Mapping precision: Precision within 10KM of the mapped location

Directions:

NW part of Chichagof Island, west side of Lisianski Inlet, across from Pelican, along Cann Creek.

General description:

In muskeg.

Elevation: 15M

Date last observed: 1979-08-24

SPECIMENS: 1979 MULLER, M.C. 3294. WTU

TONGASS NATIONAL FOREST

005 BACK BAY, AFOGNAK ISLAND 58 05 10N 152 46 00W

Mapping precision: Precision within a one minute radius, approx. 2.0KM, of the mapped location

Directions:

Back Bay, on south coast of Afognak Island.

General description:

Borders of beaver ponds.

Elevation: 1M

Date last observed: 1895-07-28

SPECIMENS: 1895 GORMAN, M.W. NY (according to Hultén, 1941).

NOT ON FOREST SERVICE LAND

LITERATURE:

Calder, J.A., and R.L. Taylor. 1968. Flora of the Queen Charlotte Islands. Canad. Dept. Agric. Res. Branch Monogr. 4, Part 1.

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- Washington Natural Heritage Program. 1990. Full data printout of Platanthera chorisiana as of April 9, 1990. 1 p.
- Welsh, S.L. 1974. Anderson's flora of Alaska and adjacent parts of Canada. Brigham Young Univ. Press, Provo, UT. 724 p.

SPECIES DESCRIPTION
PLATANThERA GRACILIS

TAXONOMY:

Scientific name: Platanthera gracilis Lindl.
Common name: SLENDER BOG-ORCHID
Family: ORCHIDACEAE
Synonyms: Habenaria gracilis (Lindl.) Wats.
H. saccata var gracilis (Lindl.) B. Boi.
H. saccata Greene
Platanthera saccata (Greene) Hult.

Taxonomic comments:

Hultén follows Lindley in recognizing this taxon as distinct. "Similar to P. saccata, but spur filiform, longer than lip," according to Hultén, 1968. Calder and Taylor, 1968 subsume P. gracilis into P. saccata. They examined about 100 specimens of P. saccata from the Pacific Northwest and found no justification for the recognition of either P. gracilis or P. saccata var gracilis. Kartesz, 1989 includes both P. saccata and P. dilatata var gracilis within P. stricta and includes P. gracilis in P. hyperborea var gracilis.

Diagnostic characteristics:

Similar to (and questionably distinct from) P. saccata (Greene) Hultén. P. gracilis distinguished from this more widespread species by its narrowly filiform flower spur (Hultén, 1968).

Similar species:

Similar to P. saccata, from which P. gracilis can be distinguished by its narrow, nearly linear spur, longer than the lip (Hultén, 1968).

RANKING:

Global rank: G2Q

Global ranking comments:

The species is limited to a small geographic range, with few documented occurrences. The taxon is questionably distinct. If the species is determined to be distinct, it may be found to be more common than previous collections have indicated.

State rank: S2

State ranking comments

Four known occurrences (but difficulty in distinguishing species from other Platanthera spp. would make additional occurrences likely).

DISTRIBUTION AND ABUNDANCE:

Range:

Global range comments:

Limited to southernmost Southeast Alaska and adjacent British Columbia.

State range comments:

Limited to southernmost Southeast Alaska.

Abundance:

Global abundance comments:

Unknown, inventory needed.

State abundance comments:

Unknown, inventory needed.

Habitat:

Global habitat:

Wet meadows.

State habitat:

Wet open habitats.

INFORMATION NEEDS:

Inventory needs:

Global inventory needs:

Verify known populations and search likely habitat for new populations.

State inventory needs:

Verify known occurrences and search likely habitat within range for new populations.

PROTECTION:

Status:

Several occurrences on the Tongass National Forest of Alaska, but no occurrences known to receive special protection status.

Needs:

Global protection needs:

Protect all known populations unless subsequent taxonomic analysis determines the species not to be a distinct taxon.

State protection needs:

Protect known occurrences.

DOCUMENTED OCCURRENCES ON OR NEAR ALASKA FOREST SERVICE LANDS:

001 PEARSE CANAL 54 58 27N 130 17 18W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Observatory Inlet (dot located on Pearse Inlet in Hultén, 1941).

General description:

Observatory Inlet.

Elevation: Unknown

Date last observed: Unknown

SPECIMENS: MENZIES, A. (according to Hultén, 1941)

NOT ON FOREST SERVICE LAND

002 DALL ISLAND

Mapping precision: Unmappable

Directions:

Dall Island.

General description:

Not available.

Elevation: Unknown

Date last observed: Unknown

SPECIMENS: WALKER, E.H. 745. US (according to Hultén, 1941)

NOT ON FOREST SERVICE LAND

003 METLAKATLA, ANNETTE ISLAND 55 07 33N 131 35 05W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Metlakatla, Annette Island.

General description:

Not available.

Elevation: 20M

Date last observed: 1891-08-16

SPECIMENS: 1891 COOLEY, G.E. US; NY (according to Hultén, 1941)

NOT ON FOREST SERVICE LAND

004 LORING, REVILLAGIGEDO ISLAND. 55 36 02N 131 37 19W

Mapping precision: Precision within 10M ' & the mapped location

Directions:

Loring, Revillagigedo Island.

General description:

Not available.

Elevation: 35M

Date last observed: Unknown

SPECIMENS: CHAMBERLAIN. 70. (according to Hultén, 1941)

TONGASS NATIONAL FOREST

LITERATURE:

Calder, J.A., and R.L. Taylor. 1968. Flora of the Queen Charlotte Islands. Canad. Dept. Agric. Res. Branch Monogr. 4, Part 1.

Correll, D.S. 1943. The genus Habenaria in western North America. Leaflet of Western Bot. 3:233-247.

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- Welsh, S.L. 1974. Anderson's flora of Alaska and adjacent parts of Canada. Brigham Young Univ. Press, Provo, UT. 724 p.

SPECIES DESCRIPTION
POA LAXIFLORA

TAXONOMY:

Scientific name: Poa laxiflora S.B. Buckley
Common name: LOOSE-FLOWERED BLUEGRASS
Family: POACEAE
Synonyms: Poa leptocoma var elatior Scrib. & Merr.

Taxonomic comments:

A distinct species, recognized as such by Kartesz, 1989. Originally described as Poa leptocoma var elatior by Scribner and Merrill.

Diagnostic characteristics:

Anthers 1 mm or longer; lemma with cobweb hairs at base, without hairs between keel and marginal nerve; plant with creeping rhizome; large open panicle; retrorsely scabrous culms (Hultén, 1968).

Similar species:

Above-ground portion of plant similar to P. leptocoma, but with creeping rhizomes (Hultén, 1968).

RANKING:

Global rank: G3

Global ranking comments:

Limited number of occurrences, rarely collected. Spotty distribution suggests that the species is more widespread.

State rank: S2

State ranking comments

Seven documented occurrences in the state.

DISTRIBUTION AND ABUNDANCE:

Range:

Global range comments:

Spotty distribution from Oregon and Washington to British Columbia and Southeast Alaska.

State range comments:

Limited to Southeastern Alaska.

Abundance:

Global abundance comments:

Unknown, but probably undercollected rather than extremely rare.

State abundance comments:

Unknown, but possibly more abundant than present collections would indicate.

Habitat:

Global habitat:

Moist lowland woods and open-forested meadows.

State habitat:

Moist open lowland woods.

INFORMATION NEEDS:

Inventory needs:

Global inventory needs:

Survey likely habitat within species range to determine true distribution and abundance of species.

State inventory needs:

Survey typical habitat with known range of species for additional occurrences.

PROTECTION:

Status:

Several occurrences in Olympia National Park.

Needs:

Global protection needs:

Protect occurrences at the limit of the species' geographic range.

State protection needs:

Known populations should be located and protected unless further inventory determines the species to be more abundant.

DOCUMENTED OCCURRENCES ON OR NEAR ALASKA FOREST SERVICE LANDS:

001 HOONAH 58 06 31N 135 25 57W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Along main street (dirt) of Hoonah, Chichagof Island.

General description:

Disturbed area.

Elevation: 31M

Date last observed: 1979-08-27

SPECIMENS: 1979 MULLER, M.C. 3351. SITKA FS

NOT ON FOREST SERVICE LAND

002 SANDBORN CANAL, PORT HOUGHTON 57 14 01N 133 10 12W

Mapping precision: Precision within a one minute radius, approx. 2.0KM, of the mapped location

Directions:

Mainland, Port Houghton, south side. Near head of Sandborn Canal, east side, ca. 1 mi. upstream from tidal flats.

General description:

Grassy meadow

Elevation: 2M

Element occurrence data:

At edge of grassy bench about three feet above the brackish upper beach meadow. Growing near forest ecotone.

Date last observed: 1981-07-17

SPECIMENS: 1979 MULLER, M.C. 3351. SITKA FS

TONGASS NATIONAL FOREST

003 SANDBORN CANAL, PORT HOUGHTON 57 14 32N 133 11 43W

Mapping precision: Precision within a one minute radius, approx. 2.0KM, of the mapped location

Directions:

East side of Sandborn Canal, which is on the south side of Port Houghton. East end of Frederick Sound. Along tidally influenced stream at the head of Sandborn Canal.

General description:

On stream bank.

Elevation: 002M

Element occurrence data:

Brackish meadow along tidally influenced stream.

Date last observed: 1980-07-31

SPECIMENS: 1981 MULLER, M.C. 4352. ALA; SITKA FS; WTU

TONGASS NATIONAL FOREST

004 SANDBORN CANAL, PORT HOUGHTON 57 22 35N 133 03 52W

Mapping precision: Precision within a one minute radius, approx. 2.0KM, of the mapped location

Directions:

Mainland, Port Houghton, extreme eastern end at the head of the salt chuck.

General description:

Upper beach meadow.

Elevation: 30M

Element occurrence data:

At edge of Picea sitchensis stand along the edge of the upper beach meadow. These plants scarce at this locality.

Date last observed: 1981-07-18

SPECIMENS: 1980 MULLER, M.C. 3909. SITKA FS; WTU

TONGASS NATIONAL FOREST

005 SANDBORN CANAL, PORT HOUGHTON 57 19 29N 133 05 49W

Mapping precision: Precision within a one minute radius, approx. 2.0KM, of the mapped location

Directions:

Mainland, Port Houghton, south side near the head where a river enters the bay from the south. East side of the stream at the base of a steep cliff.

General description:

Along forest/meadow ecotone.

Elevation: 30M

Element occurrence data:

On gravelly substrate by stream at edge of spruce-hemlock forest, at the base of a steep cliff adjacent to the stream.

Date last observed: 1981-07-18

SPECIMENS: 1981 MULLER, M.C. 4378. ALA; SITKA FS

TONGASS NATIONAL FOREST

006 CHAPIN BAY, ADMIRALTY ISLAND 57 08 40N 134 20 05W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Admiralty Island, south part. West side of Chapin Bay, on east side of north-south oriented peninsula near tip.

General description:

Forest edge.

Elevation: 15M

Element occurrence data:

Beach/forest ecotone.

Date last observed: 1981-08-03

SPECIMENS: 1981 MULLER, M.C. 4384. ALA; SITKA FS; WTU

TONGASS NATIONAL FOREST

007 PORT SAN JUAN 60 03 08N 148 04 01W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Alpine meadow, Port San Juan, Evans Island

General description:

Alpine meadow.

Elevation: 30M

Date last observed: 1948-08-25

SPECIMENS: 1981 MULLER, M.C. 4551,4553. SITKA FS

CHUGACH NATIONAL FOREST

LITERATURE:

Calder, J.A., and R.L. Taylor. 1968. Flora of the Queen Charlotte Islands. Canad. Dept. Agric. Res. Branch Monogr. 4, Part 1.

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Lipkin, R., and Dawe, J.C. 1986. An unpublished rare plant database prepared for the Bureau of Land Management.

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Tsvelev, N.N. 1983. Grasses of the Soviet Union [Zlaki SSSR]. Parts I and II. Translated from the Russian by B.R. Sharma. Smithsonian Institution Libraries, Washington, DC, and Amerind Publishing, New Delhi, India. 1,196 p.

Welsh, S.L. 1974. Anderson's flora of Alaska and adjacent parts of Canada. Brigham Young Univ. Press, Provo, UT. 724 p.

SPECIES DESCRIPTION
POA TURNERI

TAXONOMY:

Scientific name: Poa turneri Scribner
Common name: TURNER BLUEGRASS
Family: POACEAE
Synonyms: Poa hispidula Vasey
Poa macrocalyx Traut. & Mey.

Taxonomic comments:

"Can well be regarded as a luxuriant variety of Poa hispidula Vasey," according to Hultén, 1973. Recognized as a distinct species in Kartesz, 1989. Welsh, 1974, follows Tsvelev, 1984, and includes P. turneri in P. macrocalyx along with P. hispidula, P. lanata, and P. norbergii. Welsh describes the material he includes in P. macrocalyx as comprising a "series of intergrading morphological units which are separable only on arbitrary bases." He goes on to say that the above synonyms (including P. turneri) "are based on type specimens collected along the coast of Alaska, undoubtedly on morphologically distinctive materials. These are, however, connected by a great many intermediate specimens and it seems best to treat all of our materials as belonging to a single polymorphic species." (Welsh, 1974).

Diagnostic characteristics:

Not clearly distinct from P. hispidula. Nodding panicle, large spikelets, long and narrow glumes, long and distinct marginal nerve of lemma (Hultén, 1941).

Similar species:

Similar to P. hispidula, but panicle larger, nodding, glumes and lemmas larger, marginal nerve prominent (Hultén, 1941).

RANKING:

Global rank: G3Q

Global ranking comments:

At least twelve occurrences, questionable taxonomy.

State rank: S3

State ranking comments

At least eleven occurrences known, most located in remote areas of Aleutians.

DISTRIBUTION AND ABUNDANCE:

Range:

Global range comments:

Limited to Southcentral Alaska, the Aleutians, and the Commander Islands.

State range comments:

Limited to Kenai Peninsula and Aleutian Islands.

Abundance:

Global abundance comments:

Unknown, inventory needed.

State abundance comments:

Unknown, inventory needed.

Habitat:

Global habitat:

Meadows.

State habitat:

Open lowland habitats.

INFORMATION NEEDS:

Inventory needs:

Global inventory needs:

Verify known populations and survey appropriate habitat within known range.

State inventory needs:

Verify known populations and survey appropriate habitat within known range.

PROTECTION:

Status:

Occurrences documented from Chugach National Forest and Maritime National Wildlife Refuge in Alaska, but no occurrences known to receive special protection.

Needs:

Global protection needs:

Protect occurrences at the limit of the species' range.

State protection needs:

Monitor populations; no special protection status needed at present time.

DOCUMENTED OCCURRENCES ON OR NEAR ALASKA FOREST SERVICE LANDS:

001 COHOE BEACH, KENAI PENINSULA 60 20 45N 151 22 46W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Cohoe Beach, Kenai Peninsula.

General description:

Coastal dunes.

Elevation: 1M

Element occurrence data:

Salty coastal dunes with thin moss and litter layer.

Date last observed: 1977-08-17

SPECIMENS: 1977 BATTEN, A.R.; MURPHY, S. 77-514. UBC

NOT ON FOREST SERVICE LAND

002 SEWARD 60 07 09N 149 26 19W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Seward

General description:

Meadow

Elevation: Unknown

Date last observed: 1939-07-19

SPECIMENS: 1939 ANDERSON, J.P. 5680. CAN

NOT ON FOREST SERVICE LAND

003 KENAI, KENAI PENINSULA 60 34 56N 151 19 04W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Meining meadow, north Kenai Road, Kenai.

General description:

In meadow.

Elevation: 15M

Date last observed: 1957-07-29

NOT ON FOREST SERVICE LAND

LITERATURE:

Hultén, E. 1973. Supplement to flora of Alaska and neighboring territories: A study in the flora of Alaska and the transberingian connection. Bot. Not. 126:459-512.

Hultén, E. 1941-1950. Flora of Alaska and Yukon. 1-10. Lunds Univ. Arsskr. N.F. Avd. 2, Vol. 37-46. 1,902 p.

Hultén, E. 1968. Flora of Alaska and neighboring territories. Stanford Univ. Press, Stanford, CA. 1,008 p.

Kartesz, J.T. 1989. Working draft of vascular plants of Alaska. The Nature Conservancy, Arlington, Virginia. 71 p.

Tsvelev, N.N. 1983. Grasses of the Soviet Union [Zlaki SSSR]. Parts I and II. Translated from the Russian by B.R. Sharma. Smithsonian Institution Libraries, Washington, DC, and Amerind Publishing, New Delhi, India. 1,196 p.

Welsh, S.L. 1974. Anderson's flora of Alaska and adjacent parts of Canada. Brigham Young Univ. Press, Provo, UT. 724 p.

SPECIES DESCRIPTION
POLYSTICHUM SETIGERUM

TAXONOMY:

Scientific name: Polystichum setigerum (Presl) Presl
Common name: ALASKA HOLLY FERN
Family: ASPLENIACEAE
Synonyms: Polystichium braunii (Spenser) Fee
P. munitum (Kaulf.) Presl

Taxonomic comments:

Considered a hybrid between P. braunii and P. munitum (Lellinger, 1985). Recognized as a distinct species in Kartesz, 1989.

Diagnostic characteristics:

Pinnae deeply lobed, pinnules adnate to costa, costae with few to many linear-lanceolate scales; rachises with many lanceolate scales, larger scales pale brown (Lellinger, 1985).

Similar species:

As a putative hybrid P. setigerum resembles its parent species, P. munitum and P. braunii. Distinguished from P. munitum by its deeply lobed pinnae and from P. braunii by its pinnules being broadly adnate to the costa (Lellinger, 1985).

RANKING:

Global rank: G3

Global ranking comments:

23 occurrences documented, limited range.

State rank: S2

State ranking comments

Limited to fifteen documented occurrences.

DISTRIBUTION AND ABUNDANCE:

Range:

Global range comments:

Coastal Southeast Alaska and coastal British Columbia.

State range comments:

Limited to southern Southeast Alaska.

Abundance:

Global abundance comments:

Global abundance unknown.

State abundance comments:

State abundance unknown.

Habitat:

Global habitat:

Lowland forests.

State habitat:

Terrestrial fern of forests of southern Southeast Alaska.

INFORMATION NEEDS:

Inventory needs:

Global inventory needs:

Present data based on literature and some herbarium records.
Needs field verification.

State inventory needs:

Survey appropriate habitat in Southeast Alaska.

PROTECTION:

Status:

Occurrences located on Tongass National Forest lands, but none known to receive special protection.

Needs:

Global protection needs:

Protect best examples of known occurrences.

State protection needs:

Protect best examples of known occurrences.

DOCUMENTED OCCURRENCES ON OR NEAR ALASKA FOREST SERVICE LANDS:

Occurrence data not yet entered into database. Occurrences reported from Tongass National Forest. For current detailed locational information on this species, contact the Alaska Natural Heritage Program.

LITERATURE:

Kartesz, J.T. 1989. Working draft of vascular plants of Alaska. The Nature Conservancy, Arlington, Virginia. 71 p.

Lellinger, D.B. 1985. A field manual of the ferns and fern allies of the United States and Canada. Smithsonian Institution Press. 389 p.

SPECIES DESCRIPTION
PUCCINELLIA GLABRA

TAXONOMY:

Scientific name: Puccinellia glabra Swallen
Common name: SMOOTH ALKALI GRASS
Family: POACEAE
Synonyms: Puccinellia andersonii Swallen

Taxonomic comments:

Recognized as a valid species by Swallen, 1944 and by Hultén, 1968; not considered valid by Welsh, 1974, nor by Calder and Taylor, 1968. Welsh states that P. glabra was maintained as distinct by Swallen on the basis of such characteristics as divarication of branching of the panicles and number of florets per spikelet, both notoriously variable characters. Kartesz, 1989, includes both P. glabra and P. triflora in P. andersonii.

Diagnostic characteristics:

Swallen, 1944, states that the relatively long ascending panicle branches, the spreading florets, and long lemmas are characteristic for this species.

Similar species:

This species is questionably distinct from P. andersonii, from which it differs in its relatively long panicle branches, spreading florets, and long lemmas (Welsh, 1974).

RANKING:

Global rank: G2Q

Global ranking comments:

Four documented occurrences, with a high likelihood of additional populations elsewhere within its known range. Not recognized as a valid taxon in Kartesz, 1989.

State rank: S2

State ranking comments

Four documented occurrences, with a high likelihood of additional populations elsewhere within its limited known range.

DISTRIBUTION AND ABUNDANCE:

Range:

Global range comments:

Limited to southcentral Alaska.

State range comments:

Limited to the Cook Inlet, Kenai Peninsula area and Kodiak Island.

Abundance:

Global abundance comments:

Unknown, inventory needed.

State abundance comments:

Unknown, inventory needed.

Habitat:

Global habitat:

Wet places, including sea beaches, tidal flats, and salt marshes.

State habitat:

Limited to coastal flats frequently overflowed by tides.

INFORMATION NEEDS:

Inventory needs:

Global inventory needs:

Known populations need to be located and additional populations sought out within the species' known range.

State inventory needs:

Known populations need to be located and additional populations sought out within the species' known range.

PROTECTION:

Status:

Occurrences documented from Chugach National Forest, Alaska, but no occurrences known to receive special protection.

Needs:

Global protection needs:

Protect all known populations unless subsequent study proves the taxon invalid or inventory shows the species to be more common than previous collections would indicate.

State protection needs:

Protect all known populations unless subsequent study proves the taxon invalid or inventory shows the species to be more common than previous collections would indicate.

DOCUMENTED OCCURRENCES ON OR NEAR ALASKA FOREST SERVICE LANDS:

001 KASILOF, KENAI PENINSULA 60 19 09N 151 15 54W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Kasilof, Kenai Peninsula.

General description:

Kasilof, Kenai Peninsula.

Elevation: 000M

Element occurrence data:

Tidal flats.

Date last observed: 1897

SPECIMENS: 1897 WALTER H. EVANS. 609. US (according to Hultén, 1941)

NOT ON FOREST SERVICE LAND

002 ANCHORAGE 61 12 53N 149 54 53W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Anchorage vicinity.

General description:

Tidal flats.

Elevation: 000M

Date last observed: 1897

SPECIMENS: WALTER H. EVANS. US (according to Hultén, 1941)

NOT ON FOREST SERVICE LAND

003 HOMER 59 38 23N 151 32 46W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Roadside, Homer, Kenai Peninsula.

General description:

On gravel from seashore.

Elevation: 1M

Date last observed: 1949-07-06

SPECIMENS: 1949 LEPAGE. E. 25230. CAN

NOT ON FOREST SERVICE LAND

004 FISH CREEK, KNIK ARM 61 12 18N 149 55 51W

Mapping precision: Precision within a one minute radius, approx. 2.0KM, of the mapped location

Directions:

Fish Creek Flat, Knik Arm.

General description:

On clay soil of bank at edge of Fish Creek Flat.

Elevation: 1M

Date last observed: 1948-07-19

SPECIMENS: 1948 LEPAGE. E. 23538. CAN; US (according to Hultén, 1941)

NOT ON FOREST SERVICE LAND

005 KNIK ARM, GOVERNMENT DOCK 61 14 10N 149 53 18W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Government Dock, Knik Arm.

General description:

Sandy beach.

Elevation: 000M

Date last observed: 1947-07-01

SPECIMENS: 1948 LEPAGE. E. 23541. CAN

NOT ON FOREST SERVICE LAND

006 KNIK ARM, GOVERNMENT DOCK 61 14 10N 149 53 18W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Government Dock, Knik Arm.

General description:

Muddy shore.

Elevation: 000M

Date last observed: 1947-07-01

SPECIMENS: 1948 LEPAGE, E. 23542. CAN

NOT ON FOREST SERVICE LAND

007 GOOSE BAY, KNIK ARM 61 23 33N 149 51 29W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Goose Bay, North side of Knik Arm, Cook Inlet

General description:

Clayey seashore.

Elevation: 000M

Date last observed: 1949-07-17

SPECIMENS: 1948 LEPAGE, E. 23381. CAN

NOT ON FOREST SERVICE LAND

008 EAGLE RIVER FLATS 61 19 00N 149 41 54W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Eagle River Flats, Knik Arm.

General description:

In clayey meadow.

Elevation: 000M

Date last observed: 1947-07-02

SPECIMENS: 1947 DUTILLY, A.; LEPAGE, E.; O'NEILL, H. 20551.
CAN

NOT ON FOREST SERVICE LAND

009 HOMER, SEASHORE 59 38 23N 151 32 46W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Homer.

General description:

Seashore

Elevation: 000M

Date last observed: 1947-07

SPECIMENS: 1947 DUTILLY, A.; LEPAGE, E.; O'NEILL, H. 20554. DAO

NOT ON FOREST SERVICE LAND

LITERATURE:

Calder, J.A., and R.L. Taylor. 1968. Flora of the Queen Charlotte Islands. Canad. Dept. Agric. Res. Branch Monogr. 4, Part 1.

Hitchcock, C.L., A. Cronquist, M. Ownby, and J.W. Thomson. 1955-1969. Vascular plants of the Pacific Northwest. Parts 1-5. Univ. Washington Press, Seattle, WA.

Hultén, E. 1941-1950. Flora of Alaska and Yukon. 1-10. Lunds Univ. Arsskr. N.F. Avd. 2, Vol. 37-46. 1,902 p.

Hultén, E. 1968. Flora of Alaska and neighboring territories. Stanford Univ. Press, Stanford, CA. 1,008 p.

Kartesz, J.T. 1989. Working draft of vascular plants of Alaska. The Nature Conservancy, Arlington, Virginia. 71 p.

Swallen, J.R. 1944. The Alaskan species of PUCCINELLIA. J. Wash. Acad. Sci. 34(1):16-23.

Welsh, S.L. 1974. Anderson's flora of Alaska and adjacent parts of Canada. Brigham Young Univ. Press, Provo, UT. 724 p.

SPECIES DESCRIPTION
PUCGINELLIA KAMTSCHATICA

TAXONOMY:

Scientific name: Puccinellia kamtschatica Holmberg
Common name: ALASKA ALKALI GRASS
Family: POACEAE
Synonyms: Puccinellia nutkaensis (Presl) Fern. & Wealth.

Taxonomic comments:

Recognized as a valid species by Swallen, 1944, and by Hultén, 1968; not considered valid by Welsh, 1974, nor by Calder and Taylor, 1968. Welsh subsumes P. kamtschatica in P. nutkaensis. Recognized as a distinct species by Kartesz, 1989.

Diagnostic characteristics:

Lemmas thin, shining, obtuse, with nerves obscure, not more than 3 mm long; palea longer than lemma, plants soft with slender culms 15-25 cm tall; panicle branches ascending or, at maturity, spreading or reflexed. Anthers mostly 0.8-1.0 mm long. (Swallen, 1944)

Similar species:

This species is questionably distinct from P. nutkaensis, from which it differs in its erose-ciliolate glumes and lemmas and thin lemmas. (Hultén, 1968)

RANKING:

Global rank: G2Q

Global ranking comments:

Five documented occurrences, with a high likelihood of additional populations elsewhere within its known range. Taxonomically questionable.

State rank: S2

State ranking comments

Four documented occurrences, with a high likelihood of additional populations elsewhere within its known range.

DISTRIBUTION AND ABUNDANCE:

Range:

Global range comments:

Limited to the southern coast of Alaska, from the Aleutian Islands to northern Southeast Alaska.

State range comments:

Limited to widely separated isolated occurrences in coastal Southcentral and Southeast Alaska, from the Aleutian Islands, the Alaska Peninsula, and northern Southeast Alaska.

Abundance:

Global abundance comments:

Unknown, inventory needed.

State abundance comments:

Unknown, inventory needed.

Habitat:

Global habitat:

Wet places, sea beaches.

State habitat:

Wet places on coast.

INFORMATION NEEDS:

Inventory needs:

Global inventory needs:

Known populations need to be verified and additional populations sought out within the species' known range.

State inventory needs:

Locate known populations and survey appropriate habitat within species' range for new occurrences.

PROTECTION:

Status:

Occurrences documented from Tongass National Forest and Maritime National Wildlife Refuge of Alaska, but no occurrences known to receive special protection.

Needs:

Global protection needs:

Protect all known populations unless subsequent study proves the taxon invalid or inventory shows the species to be more common than previous collections would indicate.

State protection needs:

Protect all known populations unless subsequent study proves the taxon invalid or inventory shows the species to be more common than previous collections would indicate.

DOCUMENTED OCCURRENCES ON OR NEAR ALASKA FOREST SERVICE LANDS:

001 HOLKHAM BAY 57 43 13N 133 34 25W

Mapping precision: Precision within 10KM of the mapped location

Directions:
Holkham Bay.

General description:
Seashore

Elevation: 000M

Date last observed: Unknown

SPECIMENS: COOPER, W.S. 165. (according to Hultén, 1941)

TONGASS NATIONAL FOREST

002 GLACIER BAY

Mapping precision: Unmappable

Directions:
Glacier Bay.

General description:
Along seashore.

Elevation: 000M

Date last observed: Unknown

SPECIMENS: COOPER, W.S. 369. (according to Hultén, 1941)

NOT ON FOREST SERVICE LAND

LITERATURE:

Calder, J.A., and R.L. Taylor. 1968. Flora of the Queen Charlotte Islands. Canad. Dept. Agric. Res. Branch Monogr. 4, Part 1.

Hitchcock, C.L., A. Cronquist, M. Ownby, and J.W. Thomson. 1955-1969. Vascular plants of the Pacific Northwest. Parts 1-5. Univ. Washington Press, Seattle, WA.

- Hultén, E. 1941-1950. Flora of Alaska and Yukon. 1-10. Lunds Univ. Arsskr. N.F. Avd. 2, Vol. 37-46. 1,902 p.
- Hultén, E. 1968. Flora of Alaska and neighboring territories. Stanford Univ. Press, Stanford, CA. 1,008 p.
- Kartesz, J.T. 1989. Working draft of vascular plants of Alaska. The Nature Conservancy, Arlington, Virginia. 71 p.
- Swallen, J.R. 1944. The Alaskan species of PUCCINELLIA. J. Wash. Acad. Sci. 34(1):16-23.
- Tsvelev, N.N. 1983. Grasses of the Soviet Union [Zlaki SSSR]. Parts I and II. Translated from the Russian by B.R. Sharma. Smithsonian Institution Libraries, Washington, DC, and Amerind Publishing, New Delhi, India. 1,196 p.
- Welsh, S.L. 1974. Anderson's flora of Alaska and adjacent parts of Canada. Brigham Young Univ. Press, Provo, UT. 724 p.

SPECIES DESCRIPTION
RANUNCULUS ORTHORHYNCHUS VAR ALASCHENSIS

TAXONOMY:

Scientific name: Ranunculus orthorhynchus var alaschensis L.

Benson

Common name: STRAIGHT-BEAK BUTTERCUP

Family: RANUNCULACEAE

Synonyms: Ranunculus orthorhynchus Hook.

Taxonomic comments:

Given a Q qualifier because it is not recognized as distinct from the typical variety by Kartesz, 1989. Considered a valid taxon in Hultén, 1968, and in Welsh, 1974. Not considered valid in Calder and Taylor, 1968. Brayshaw, 1989, recognizes the taxon but states that var alaschensis "is not sharply distinguished from var orthorhynchus, representing a trend toward reduction of the hairiness of the sepals."

Diagnostic characteristics:

Plant erect, petals conspicuously larger than sepals, more or less twice as long as broad, achene beak as long as achene body, straight, stem and sepals glabrous (Brayshaw, 1989).

Similar species:

This variety of buttercup is similar to (and questionably distinct from) R. orthorhynchus var orthorhynchus. It is distinguished by its glabrous sepals (Brayshaw, 1989).

RANKING:

Global rank: G5T2Q

Global ranking comments:

Ten documented occurrences. Taxonomically questionable, not recognized as varietally distinct by Kartesz, 1989.

State rank: S2

State ranking comments

Limited to eight documented occurrences in the state.

DISTRIBUTION AND ABUNDANCE:

Range:

Global range comments:

Limited to coastal Southeast Alaska and adjacent British Columbia to Vancouver Island.

State range comments:

Limited to southern Southeast Alaska.

Abundance:

Global abundance comments:

Unknown, inventory needed.

State abundance comments:

Unknown, inventory needed.

Habitat:

Global habitat:

Moist open sites.

State habitat:

Moist lowland meadows and open habitats.

INFORMATION NEEDS:

Inventory needs:

Global inventory needs:

Survey within and beyond documented range to determine size and status of populations.

State inventory needs:

Verify known populations and assess population extent, size, and status. Survey Southeast Alaska for new populations.

PROTECTION:

Status:

Occurrences documented on Tongass National Forest of Alaska, but no populations are known to receive special protection.

Needs:

Global protection needs:

Protect documented occurrences unless further taxonomic study determines the taxon to be invalid and/or unless subsequent field surveys indicate that the plant is more abundant than previous collections would indicate.

State protection needs:

Protect documented occurrences unless further taxonomic study determines the taxon to be invalid and/or unless subsequent field surveys indicate that the plant is more abundant than previous collections would indicate.

DOCUMENTED OCCURRENCES ON OR NEAR ALASKA FOREST SERVICE LANDS:

001 LORING, REVILLAGIGEDO ISLAND. 55 36 02N 131 37 19W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Loring, Revillagigedo Island.

General description:

No information available.

Elevation: 61M

Date last observed: Unknown

SPECIMENS: CHAMBERLAIN. 24. US (according to Hultén, 1941)

TONGASS NATIONAL FOREST

002 TATOOSH ISLAND 55 30 58N 131 50 29W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Tatoosh Island, in Behm Canal, 15 miles northwest of Ketchikan.

General description:

No information available.

Elevation: 30M

Date last observed: Unknown

SPECIMENS: FLEET, J.B. 1957. US (according to Hultén, 1941)

TONGASS NATIONAL FOREST

003 HOWKAN 54 52 09N 132 48 01W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Howkan village site vicinity, on northwest coast of Long Island.

General description:

No information available.

Elevation: 15M

Date last observed: 1897

SPECIMENS: 1897 EVANS, A.W. 127. US

TONGASS NATIONAL FOREST

004 YES BAY 55 55 07N 131 47 54W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Yes Bay vicinity, on northeast coast of Cleveland Peninsula.

General description:

No information available.

Elevation: 50M

Date last observed: 1902

SPECIMENS: 1902 GORMAN, M.W. 61. US; NY

TONGASS NATIONAL FOREST

005 ANAN CREEK 56 10 38N 131 52 06W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Anan Creek, 3 miles east of mouth of Bradfield Canal, at Ernest Sound, on northwest coast of Cleveland Peninsula.

General description:

No information available.

Elevation: 30M

Date last observed: Unknown

SPECIMENS: HOWELL. 1603. US; NY

TONGASS NATIONAL FOREST

006 HYDER 55 55 56N 130 01 54W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Hyder vicinity.

General description:

No information available.

Elevation: 61M

Date last observed: Unknown

SPECIMENS: WALKER, E.H. 761. US; NY (according to Hultén, 1941)

TONGASS NATIONAL FOREST

007 WRANGELL 56 27 45N 132 22 17W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Wrangell.

General description:

No information available.

Elevation: 50M

Date last observed: Unknown

SPECIMENS: WHITED. 1174. US (according to Hultén, 1941)

TONGASS NATIONAL FOREST

008 CRAIG 55 28 48N 133 07 23W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Craig vicinity, Prince of Wales Island.

General description:

Meadow.

Elevation: 30M

Date last observed: Unknown

SPECIMENS: ANDERSON, J.P. 3012. S (according to Hultén, 1941)

TONGASS NATIONAL FOREST

LITERATURE:

Brayshaw, T.C. 1989. Buttercups, waterlilies and their relatives in British Columbia. Royal British Columbia Mus. Mem. No. 1. 253 p.

Calder, J.A., and R.L. Taylor. 1968. Flora of the Queen Charlotte Islands. Canad. Dept. Agric. Res. Branch Monogr. 4, Part 1.

Hultén, E. 1941-1950. Flora of Alaska and Yukon. 1-10. Lunds Univ. Arsskr. N.F. Avd. 2, Vol. 37-46. 1,902 p.

Hultén, E. 1968. Flora of Alaska and neighboring territories. Stanford Univ. Press, Stanford, CA. 1,008 p.

Kartesz, J.T. 1989. Working draft of vascular plants of Alaska. The Nature Conservancy, Arlington, Virginia. 71 p.

Welsh, S.L. 1974. Anderson's flora of Alaska and adjacent parts of Canada. Brigham Young Univ. Press, Provo, UT. 724 p.

SPECIES DESCRIPTION
ROMANZOFFIA UNALASCHCENSIS

TAXONOMY:

Scientific name: Romanzoffia unalaschcensis Cham. in Nees v.
Esenb. 1820.

Common name: UNALASKA MIST-MAID

Family: HYDROPHYLLACEAE

Taxonomic comments:

This small genus of four species is apparently endemic to western North America; reports from east Asia are based on an unconfirmed collection of R. unalaschcensis generally regarded as incorrect (Hultén 1941-50). Recognized as a distinct species by Kartesz, 1989.

Diagnostic characteristics:

Leaves viscid-pubescent beneath; pedicels about as long as calyx (Hultén 1968).

Similar species:

Similar to related R. sitchensis, from which it differs in its viscid-pubescent leaves and shorter pedicels. Often mistaken for a Saxifraga species, from which it is easily distinguished by its fruits of round capsules rather than 2 follicles (Hultén 1968).

RANKING:

Global rank: G2G3

Global ranking comments:

Although there are currently less than 20 separate locations known with certainty, others are believed likely. The species is easily mistaken for a saxifrage such as S. bracteata, and the area it occurs in is poorly known botanically.

State rank: S2S3

State ranking comments

Although there are currently less than 20 separate locations known with certainty, others are believed likely. The species is easily mistaken for a saxifrage such as S. bracteata, and the area it occurs in is poorly known botanically.

DISTRIBUTION AND ABUNDANCE:

Range:

Global range comments:

Endemic to eastern Aleutians, Alaska Peninsula, Kodiak and scattered locations east to Sitka. Reports from east Asia are apparently based on a collection from the Tauí River in Magadan, Soviet Union, now regarded as incorrect (Hultén 1937). Reports from St. Paul, St. George, St. Michael, the Mt. St. Elias region, and Vancouver Island are also unconfirmed and are considered unlikely by Hultén, 1937, 1941-50.

State range comments:

Endemic to eastern Aleutians, Alaska Peninsula, Kodiak and scattered locations east to Sitka. Reports from St. Paul, St. George, St. Michael and the Mt. St. Elias region are also unconfirmed and are considered unlikely by Hultén, 1937, 1941-50.

Abundance:

Global abundance comments:

There are no reliable figures on abundance. Hultén, 1937, notes that it was common at Unalaska.

State abundance comments:

There are no reliable figures on abundance. Hultén, 1937, notes that it was common at Unalaska.

Habitat:

Global habitat:

Moist to wet river banks, beach terraces, rock crevices.

State habitat:

Wet rock outcrops and shorelines.

INFORMATION NEEDS:

Inventory needs:

Global inventory needs:

Inventories are needed to document the distribution and abundance of this species, especially in the eastern part of its range.

State inventory needs:

Inventories are needed to document the distribution and abundance of this species, especially in the eastern part of its range. Reports of collections from outlying areas should be checked, including St. Michael (Norton Sound) and the Pribilof Islands (Hultén 1941-50).

PROTECTION:

Status:

Several occurrences are within a U.S. Fish Wildlife Service refuge, or on U.S. Forest Service land; these agencies are currently neither aware of nor monitoring these populations.

Needs:

Global protection needs:

Protect best examples of documented occurrences.

State protection needs:

Protect best examples of documented occurrences.

DOCUMENTED OCCURRENCES ON OR NEAR ALASKA FOREST SERVICE LANDS:

001 CAPE ST. ELIAS, KAYAK ISLAND 59 48 36N 144 35 33W

Mapping precision: Precision within a one minute radius, approx. 2.0KM, of the mapped location

Directions:

Cape St. Elias, Kayak Island, west beach.

General description:

Wet area on old beach terrace.

Elevation: 30.5M

Date last observed: 1987-05-19

SPECIMENS: CUNNINGHAM, W.; STANFORD, S. 92-78. ALA

CHUGACH NATIONAL FOREST

002 HAWKINS CREEK, HAWKINS ISLAND 60 30 48N 146 13 27W

Mapping precision: Precision within a one minute radius, approx. 2.0KM, of the mapped location

Directions:

Hawkins Island, Hawkins Creek.

General description:

Creek bed bar of Hawkins Creek.

Elevation: 10M

Date last observed: 1969-06-08

SPECIMENS: 1978 CUNNINGHAM, W.; STANFORD, S. 92-78. ALA

CHUGACH NATIONAL FOREST

003 SILVER BAY, SITKA, BARANOF ISLAND 57 02 23N 135 11 47W

Mapping precision: Precision within a one minute radius, approx. 2.0KM, of the mapped location

Directions:

Baranof Island, ca. 6 mi. east of Sitka, southeast side of Herring Cove in Silver Bay, about 500 ft. down Green Lake Road, 20 feet above road.

General description:

Plants growing in rocky disturbed soil of open area; was hemlock-spruce forest; next to extensive land slide; plants growing in small clumps (label, Robertson 528, 1969. ALA).

Elevation: 40M

Date last observed: 1982-06-27

SPECIMENS: ROBERTSON, K. 528. ALA

TONGASS NATIONAL FOREST

004 RASPBERRY ISLAND

Mapping precision: Precision within 10KM of the mapped location

Directions:

Raspberry Island, Port Vita, Kodiak Island group.

General description:

In slate rock crevices on moist shady bank associated with moss, ferns, and Tellima grandiflora.

Elevation:

Date last observed: 1945-08-10

SPECIMENS: 1969 ROBERTSON, K. 528. ALA

NOT ON FOREST SERVICE LAND

005 OLGA BAY

Mapping precision: Precision within 10KM of the mapped location

Directions:

"Looff Lake," draining into Olga Bay, Kodiak Island.

General description:

In small stream entering west shore of Olga Lake.

Elevation: Unknown

SPECIMENS: MULLER, M.C. 4836. ALA

NOT ON FOREST SERVICE LAND

LITERATURE:

Hitchcock, C.L., A. Cronquist, M. Ownby, and J.W. Thomson. 1955-1969. Vascular plants of the Pacific Northwest. Parts 1-5. Univ. Washington Press, Seattle, WA.

Hultén, E. 1937. Flora of the Aleutian Islands and westernmost Alaska Peninsula with notes on the flora of Commander Islands. Bokforlags Aktiebolaget Thule, Stockholm. 397 p.

Hultén, E. 1941-1950. Flora of Alaska and Yukon. 1-10. Lunds Univ. Arsskr. N.F. Avd. 2, Vol. 37-46. 1,902 p.

Hultén, E. 1960. Flora of the Aleutian Islands. Second edition. J. Cramer, Weinheim. 376 p. + maps, plates.

Hultén, E. 1968. Flora of Alaska and neighboring territories. Stanford Univ. Press, Stanford, CA. 1,008 p.

Hultén, E. 1973. Supplement to flora of Alaska and neighboring territories: A study in the flora of Alaska and the transberingian connection. Bot. Not. 126:459-512.

Kartesz, J.T. 1989. Working draft of vascular plants of Alaska. The Nature Conservancy, Arlington, Virginia. 71 p.

Welsh, S.L. 1974. Anderson's flora of Alaska and adjacent parts of Canada. Brigham Young Univ. Press, Provo, UT. 724 p.

SPECIES DESCRIPTION
SALIX RETICULATA SSP GLABELLICARPA

TAXONOMY:

Scientific name: Salix reticulata ssp glabelllicarpa Argus
Common name: SMOOTH-FRUITED NETLEAF WILLOW
Family: SALICACEAE

Taxonomic comments:

A distinct subspecies. Treated as such by Kartesz, 1989.

Diagnostic characteristics:

Prostrate willow shrub with leathery reticulate-veined leaves and with glabrous ovaries and capsules (Argus, 1973).

Similar species:

Similar to more common typical variety of S. reticulata, but with glabrous and glaucous pistils (Argus, 1973).

RANKING:

Global rank: G5T2

Global ranking comments:

Limited to nine documented occurrences, with the possibility of being more common on the Queen Charlotte Islands.

State rank: S1

State ranking comments

A single documented occurrence within the state. The species' state rank will be lowered if, as seems likely, it is found to be more common in Southeast.

DISTRIBUTION AND ABUNDANCE:

Range:

Global range comments:

Limited to the Queen Charlotte Islands and a single disjunct population near Juneau, Alaska.

State range comments:

Limited to one documented occurrence on a single alpine peak near Juneau.

Abundance:

Global abundance comments:

Unknown, inventory needed.

State abundance comments:

There is a good chance that a thorough inventory of the alpine of Southeast Alaska will show the subspecies to be more abundant within the state.

Habitat:

Global habitat:

Alpine tundra.

State habitat:

Alpine tundra.

INFORMATION NEEDS:

Inventory needs:

Global inventory needs:

Survey the alpine of the Queen Charlotte Islands and Southeast Alaska for additional populations.

State inventory needs:

Survey the alpine of Southeast Alaska for additional populations, examining the degree of intergradation with S. reticulata ssp reticulata.

PROTECTION:

Status:

No occurrences known to receive special protection.

Needs:

Global protection needs:

Protect all documented occurrences until and unless subspecies is found to be more common.

State protection needs:

Protect known occurrences unless further inventory shows the subspecies to be more common in Alaska than previous collections would indicate.

DOCUMENTED OCCURRENCES ON OR NEAR ALASKA FOREST SERVICE LANDS:

001 MT. GASTINEAU 58 17 41N 134 21 52W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Mt. Gastineau, on Mt. Roberts trail below summit of Gastineau Peak.

General description:

Alpine tundra on slopes of Mt. Gastineau.

Elevation: 610M

Element occurrence data:

Plants in mossy ravine in deep moss, also on alpine slopes in Alnus thicket and in wet depressions.

Date last observed: 1967-07-09

SPECIMENS: 1967 ARGUS, G.W.; CHUNYS, W.N. 6632. CAN

NOT ON FOREST SERVICE LAND

LITERATURE:

Argus, G.W. 1965. The taxonomy of the Salix glauca complex in North America. Contributions from the Gray Herbarium no. 196.

Argus, G.W. 1973. The genus Salix in Alaska and the Yukon. Publ. Bot. No. 2. National Museums of Canada, Ottawa, Ontario, Canada. 279 p.

Calder, J.A., and R.L. Taylor. 1968. Flora of the Queen Charlotte Islands. Canad. Dept. Agric. Res. Branch Monogr. 4, Part 1.

Douglas, G.W. 1991. Rare, endangered, and threatened native vascular plants of British Columbia. Draft report prepared for Research Branch, British Columbia Ministry of Forests, Victoria, British Columbia, by Douglas Ecological Consultants Ltd., Duncan, British Columbia. 85 p.

Hultén, E. 1941-1950. Flora of Alaska and Yukon. 1-10. Lunds Univ. Arsskr. N.F. Avd. 2, Vol. 37-46. 1,902 p.

Hultén, E. 1968. Flora of Alaska and neighboring territories. Stanford Univ. Press, Stanford, CA. 1,008 p.

Hultén, E. 1973. Supplement to flora of Alaska and neighboring territories: A study in the flora of Alaska and the transberingian connection. Bot. Not. 126:459-512.

Kartesz, J.T. 1989. Working draft of vascular plants of Alaska. The Nature Conservancy, Arlington, Virginia. 71 p.

Welsh, S.L. 1974. Anderson's flora of Alaska and adjacent parts of Canada. Brigham Young Univ. Press, Provo, UT. 724 p.

SPECIES DESCRIPTION
SALIX SETCHELLIANA

TAXONOMY:

Scientific name: Salix setchelliana Ball
Common name: SETCHELL WILLOW
Family: SALICACEAE

Taxonomic comments:

Treated as a distinct species in Kartesz, 1989.

Diagnostic characteristics:

Prostrate shrub with glabrous brick-red pistils; leaves coriaceous, glaucous beneath, lemon-green in color; branchlets woolly (Argus, 1973).

Similar species:

A distinctive willow, possibly (but not likely) confused with other prostrate willow species of glacial gravel such as Salix stolonifera, from which it is easily distinguished by its woolly branchlets and lemon-green coriaceous leaves (Argus, 1973).

RANKING:

Global rank: G3

Global ranking comments:

Only twenty-three occurrences documented in Argus, 1973.

State rank: S2S3

State ranking comments

At least fifteen documented occurrences, with more likely in regionally widespread habitat.

DISTRIBUTION AND ABUNDANCE:

Range:

Global range comments:

Endemic to southern Alaska and southwestern Yukon Territory (occurrence indicated on the North Slope of Alaska in Hultén, 1968, is probably a misidentification according to Argus, 1973).

State range comments:

Limited to southern half of mainland Alaska.

Abundance:

Global abundance comments:

Global abundance unknown.

State abundance comments:

State abundance unknown.

Habitat:

Global habitat:

Pioneer on sandy beaches, sandy gravel margins of glacial rivers, and on glacial moraines in mountains, according to Argus, 1973.

State habitat:

Pioneer on glacial gravel and sand. (Argus, 1973)

INFORMATION NEEDS:

Inventory needs:

Global inventory needs:

Survey southern Alaska and adjacent Yukon for additional occurrences. Verify possible disjunct occurrence reported on North Slope of Alaska in Hultén, 1968.

State inventory needs:

Survey southern Alaska for additional occurrences. Verify possible disjunct occurrence reported on North Slope in Hultén, 1968.

PROTECTION:

Status:

Occurrences located in Denali National Park and Tongass National Forest of Alaska, but none known to receive special protection.

Needs:

Global protection needs:

Protect best examples of documented occurrences.

State protection needs:

Protect best examples of documented occurrences.

DOCUMENTED OCCURRENCES ON OR NEAR ALASKA FOREST SERVICE LANDS:

Occurrence data not yet entered into database. Occurrences reported from Tongass National Forest and from lands near Chugach National Forest. For current detailed locational information on this species, contact the Alaska Natural Heritage Program.

LITERATURE:

Argus, G.W. 1973. The genus Salix in Alaska and the Yukon. Publ. Bot. No. 2. National Museums of Canada, Ottawa, Ontario, Canada. 279 p.

Hultén, E. 1968. Flora of Alaska and neighboring territories. Stanford Univ. Press, Stanford, CA. 1,008 p.

Kartesz, J.T. 1989. Working draft of vascular plants of Alaska. The Nature Conservancy, Arlington, Virginia. 71 p.

SPECIES DESCRIPTION
SENECIO MORESBIENSIS

TAXONOMY:

Scientific name: Senecio moresbiensis (Calder & Taylor) Douglas & Ruyle-Douglas
Common name: QUEEN CHARLOTTE BUTTERWEED
Family: ASTERACEAE
Synonyms: Senecio cymbalarioides Buek
S. cymbalarioides ssp moresbiensis Cald. & Tay.

Taxonomic comments:

A distinct species. Included in S. cymbalarioides in Kartesz, 1989.

Diagnostic characteristics:

Plant glabrous; flowers radiate, solitary or rarely 2; involucre bases hairy; basal leaves toothed, never lobed (Douglas, 1982).

Similar species:

"Plant is easily recognized in the field since no closely related species occur within its restricted range. In the herbarium it could be confused with S. cymbalarioides or the more northern S. cymbalaria. It differs from these taxa mainly in the presence of woolly hairs at the base of the involucre and in the leaf axils and the absence of any lobing in the basal leaves" (Douglas, 1982).

RANKING:

Global rank: G3

Global ranking comments:

Only thirty documented global occurrences.

State rank: S1

State ranking comments

Only five occurrences in Alaska.

DISTRIBUTION AND ABUNDANCE:

Range:

Global range comments:

Restricted to the Queen Charlotte Islands of British Columbia, with disjunct populations in Southeastern Alaska and northwestern Vancouver Island.

State range comments:

Limited to Coronation, Prince of Wales, and Dall Islands in Southeast Alaska.

Abundance:

Global abundance comments:

Unknown, inventory needed.

State abundance comments:

Locally common in its very restricted range in Alaska.

Habitat:

Global habitat:

Montane to alpine in shady wet areas and bogs, on open, rocky or boggy slopes, and in open, rocky heath or grass communities (Douglas, 1982).

State habitat:

Moist montane to alpine habitats, shady to open.

INFORMATION NEEDS:

Inventory needs:

Global inventory needs:

Determine size and extent of known populations. Survey appropriate habitat within known range for additional occurrences.

State inventory needs:

Locate known populations and determine their size and extent. Survey Southeast alpine for additional populations.

PROTECTION:

Status:

Five occurrences documented from Tongass National Forest of Alaska, but no occurrences known to receive special protection.

Needs:

Global protection needs:

Protect all known occurrences.

State protection needs:

Protect known occurrences unless further inventory shows the subspecies to be more common in Alaska than previous collections would indicate.

DOCUMENTED OCCURRENCES ON OR NEAR ALASKA FOREST SERVICE LANDS:

001 KASAAN MOUNTAIN 55 32 48N 132 22 08W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Kasaan Mountain, Prince of Wales Island.

General description:

Kasaan Mountain alpine.

Elevation: 520M

Date last observed: 1902-07-07

SPECIMENS: 1902 NEWCOMBE, C.F. SN. V

TONGASS NATIONAL FOREST

002 NEEDLE PEAK 55 52 16N 134 14 18W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Middle slopes of Needle Peak, Coronation Island.

General description:

Open middle slopes of Needle Peak.

Elevation: 230M

Date last observed: 1960-07-30

SPECIMENS: 1960 KLEIN, D. SN. ALA

TONGASS NATIONAL FOREST

003 THUNDER MOUNTAIN 55 04 53N 133 10 43W

Mapping precision: Precision within a one minute radius, approx. 2.0KM, of the mapped location

Directions:

Dall Island, Thunder Mountain, west side of northern peak.

General description:

On limestone; substrate of exposed rock fragments reticulated with areas of low-growing herb, dwarf shrub alpine meadow.

Elevation: 610M

Date last observed: 1990-08-15

SPECIMENS: 1990 MULLER, M.C. ALA

TONGASS NATIONAL FOREST

004 THUNDER MOUNTAIN 55 05 02N 133 10 23W

Mapping precision: Precision within a one minute radius, approx. 2.0KM, of the mapped location

Directions:

Dall Island, Thunder Mountain, northwest side of northern peak.

General description:

Alpine limestone rock runnel with talus, karst landscape.

Elevation: 732M

Date last observed: 1990-08-15

SPECIMENS: 1990 MULLER, M.C. ALA

TONGASS NATIONAL FOREST

005 WHITE MOUNTAIN 55 04 50N 133 06 35W

Mapping precision: Precision within a one minute radius, approx. 2.0KM, of the mapped location

Directions:

Dall Island, north part, White Mountain, N side.

General description:

In thin soil on smooth limestone bedrock dome, gently sloping to the north; karst landscape; with low herbaceous alpine meadow plants in area of rock debris accumulation.

Elevation: 610M

Date last observed: 1990-08-16

SPECIMENS: 1990 MULLER, M.C. ALA

TONGASS NATIONAL FOREST

LITERATURE:

- Argus, G.W., and K.M. Pryer. Rare vascular plants in Canada. Canada Museum of Nature, Ottawa, Ontario, Canada. 192 p. + maps.
- Bain, J. 1990. VAX e-mail letter from John Bain of Univ. Lethbridge to Al Batten of ALA, dated 10 MAY 1990.
- Barkley, T.M. 1978. *Senecio*. In: North America flora, Series II, Part 10. New York Botanical Garden, New York, NY.
- Batten, A. 1990. VAX e-mail letter from Al Batten of ALA to John DeLapp of AKNHP, dated 10 MAY 1990, describing herbarium specimens of *Senecio moresbiensis* from Alaska.
- Calder, J.A., and R.L. Taylor. 1965. New taxa and nomenclatural changes with respect to the flora of the Queen Charlotte Islands, British Columbia. *Canad. J. Bot.* 43:1387-1400.
- Calder, J.A., and R.L. Taylor. 1968. Flora of the Queen Charlotte Islands. *Canad. Dept. Agric. Res. Branch Monogr.* 4, Part 1.
- Douglas, G.W. 1982. The sunflower family (Asteraceae) of British Columbia, Vol. I - Senecioneae. *British Columbia Provincial Mus. No. 23, Occas. Pap. Ser.* 180 p.
- Douglas, G.W., G. Straley, and D. Meidinger (eds). 1989. The vascular plants of British Columbia. Part 1 - Gymnosperms and Dicotyledons (Aceraceae through Cucurbitaceae). *British Columbia Ministry of Forests, Research Branch, Victoria, British Columbia, Canada.* 208 p.
- Hultén, E. 1973. Supplement to flora of Alaska and neighboring territories: A study in the flora of Alaska and the transberingian connection. *Bot. Not.* 126:459-512.
- Kartesz, J.T. 1989. Working draft of vascular plants of Alaska. *The Nature Conservancy, Arlington, Virginia.* 71 p.

SPECIES DESCRIPTION
STELLARIA RUSCIFOLIA SSP ALEUTICA

TAXONOMY:

Scientific name: Stellaria ruscifolia ssp aleutica Hultén
Common name: CIRCUMPOLAR STARWORT
Family: CARYOPHYLLACEAE

Taxonomic comments:

This subspecies is the Aleutian and Alaskan segregate of a primarily East Asian species, where the typical subspecies is more widespread. According to Hultén, 1941, subspecies aleutica differs from the typical subspecies "in its smaller size, narrower, 5-8 (-10) mm long leaves, less distinctly cordate at the base, long pedunculated flowers and narrower sepals." Welsh, 1974, accepts subspecies aleutica, but states that "it approaches, if not passes into, Stellaria alaskana. Welsh also states that the complex is in need of additional study. Recognized as a distinct subspecies by Kartesz, 1989.

Diagnostic characteristics:

Flowers in axils of green leaves; lower leaves sessile, margins of leaves smooth, glabrous; leaves thick, coriaceous, rigid, cordate-ovate or broadly lanceolate, glaucous. (Hultén, 1968)

Similar species:

Similar to other members of the Stellaria longipes complex such as S. longipes and S. alaskana. Distinguished from these species by its lack of scarious bracts and its glabrous to sparingly pubescent stems. (Welsh, 1974)

RANKING:

Global rank: G4T2T3

Global ranking comments:
Only ten occurrences documented.

State rank: S2S3

State ranking comments
Only ten documented occurrences in the state.

DISTRIBUTION AND ABUNDANCE:

Range:

Global range comments:

Limited to Coastal Southeastern and Southcentral Alaska and the Aleutian Islands. One disjunct occurrence on the Seward Peninsula of Alaska.

State range comments:

Limited to Coastal Southeastern and Southcentral Alaska and the Aleutian Islands. One disjunct occurrence on the Seward Peninsula of Alaska.

Abundance:

Global abundance comments:

Unknown, inventory needed.

State abundance comments:

Unknown, inventory needed.

Habitat:

Global habitat:

Gravelly sites, along creeks in mountains.

State habitat:

Moist gravelly habitats.

INFORMATION NEEDS:

Inventory needs:

Global inventory needs:

Verify documented occurrences to determine size and status of populations, survey similar habitat throughout the Aleutians and coastal Alaska for additional occurrences.

State inventory needs:

Locate documented occurrences to determine size and status of populations, survey similar habitat throughout the Aleutians and coastal Alaska for additional occurrences.

PROTECTION:

Status:

Several occurrences on U.S. Forest Service and U.S. Fish & Wildlife Service lands, but receiving no special protection.

Needs:

Global protection needs:

Protect documented occurrences unless subsequent surveys indicate the plant is more common than previous collections would indicate.

State protection needs:

Protect documented occurrences unless subsequent surveys indicate the plant is more common than previous collections would indicate.

DOCUMENTED OCCURRENCES ON OR NEAR ALASKA FOREST SERVICE LANDS:

001 HIDDEN GLACIER 59 46 56N 139 15 50W

Mapping precision: Precision within 10KM of the mapped location

Directions:

Hidden Glacier, 25 miles northeast of Yakutat.

General description:

Hidden Glacier, Russell Fiord.

Elevation: 1M

Date last observed: 1899-06-20

SPECIMENS: 1899 COLVILLE, F.V.; KEARNEY, T.H. 987. US

TONGASS NATIONAL FOREST

LITERATURE:

Hall, J., and P. Alaback. 1992 (In press). Native plants of southern Alaska. Univ. of Alaska Press, Fairbanks, AK.

Hultén, E. 1941-1950. Flora of Alaska and Yukon. 1-10. Lunds Univ. Arsskr. N.F. Avd. 2, Vol. 37-46. 1,902 p.

Hultén, E. 1968. Flora of Alaska and neighboring territories. Stanford Univ. Press, Stanford, CA. 1,008 p.

Juday, G.P., P. Alaback, and M. Orme. 1988. Research Natural Area proposals for the Tongass Forest plan revision. Report of the Research Natural Area Steering Committee, Results of Research Natural Areas Workshops; May 24-25 and July 29, 1989. U.S. Forest Service, Juneau, AK. 79 p. + 4 appendices.

Kartesz, J.T. 1989. Working draft of vascular plants of Alaska. The Nature Conservancy, Arlington, Virginia. 71 p.

Muller, M.C. 1991. Preliminary sensitive plant list, Tongass National Forest. Unpubl. U.S. Forest Service document. 6 p.

Welsh, S.L. 1974. Anderson's flora of Alaska and adjacent parts of Canada. Brigham Young Univ. Press, Provo, UT. 724 p.

SPECIES DESCRIPTION
VACCINIUM CESPITOSUM VAR PALUDICOLA

TAXONOMY:

Scientific name: Vaccinium cespitosum var paludicola (Camp.)

Hultén

Common name: A DWARF BLUEBERRY

Family: ERICACEAE

Synonyms: Vaccinium caespitosum Michx.

Taxonomic comments:

Recognized as a distinct variety in Kartesz, 1989.

Diagnostic characteristics:

Low shrub with flowers single in axils of leaves; anthers with horns; leaves uniformly serrate in margin (Hultén, 1968).

Similar species:

Similar to V. cespitosum var cespitosum, but taller, with larger leaves, and with somewhat angled branches (Hultén, 1968).

RANKING:

Global rank: G5T2Q

Global ranking comments:

Limited to only seven reported occurrences. Variety may represent only a local variation.

State rank: S2

State ranking comments

Seven documented occurrences, located in limited geographic area. Additional occurrences likely.

DISTRIBUTION AND ABUNDANCE:

Range:

Global range comments:

Limited to Prince William Sound region of Alaska.

State range comments:

Limited to Prince William Sound area.

Abundance:

Global abundance comments:

Global abundance unknown.

State abundance comments:

State abundance unknown.

Habitat:

Global habitat:

Wet meadows near coast.

State habitat:

Wet coastal meadows.

INFORMATION NEEDS:

Inventory needs:

Global inventory needs:

Survey Prince William Sound area of Alaska for additional occurrences. Verify earlier collections.

State inventory needs:

Survey Prince William Sound area for additional occurrences. Verify earlier collections.

PROTECTION:

Status:

Occurrences located on Chugach National Forest land, but none receive special protection.

Needs:

Global protection needs:

Protect best examples of documented occurrences.

State protection needs:

Protect best examples of documented occurrences.

DOCUMENTED OCCURRENCES ON OR NEAR ALASKA FOREST SERVICE LANDS:

Occurrence data not yet entered into database. Occurrences reported from Chugach National Forest. For current detailed locational information on this species, contact the Alaska Natural Heritage Program.

LITERATURE:

Hultén, E. 1941-1950. Flora of Alaska and Yukon. 1-10. Lunds Univ. Arsskr. N.F. Avd. 2, Vol. 37-46. 1,902 p.

Hultén, E. 1968. Flora of Alaska and neighboring territories. Stanford Univ. Press, Stanford, CA. 1,008 p.

Kartesz, J.T. 1989. Working draft of vascular plants of Alaska.
The Nature Conservancy, Arlington, Virginia. 71 p.

PART FOUR: POTENTIAL SENSITIVE VASCULAR PLANT TAXA

Part Four, "Potential Sensitive Plant Taxa" consists of a list of those more globally common taxa found to be rare on the Chugach or Tongass National Forest. These 111 G4 and G5 taxa are listed in alphabetical order, with common names, authors, plant family, and Forest on which it is found to be rare. While some of these taxa are found to be common elsewhere in Alaska (with an S4 or S5 state rank), the literature suggests that they are rare on the Chugach or Tongass (should additional studies and field surveys show these taxa to be truly rare on either of the Alaska National Forests, they may warrant protection). Global and state ranks are as defined in the introduction of this report.

Potential Sensitive Vascular Plant Taxa

Abies amabilis (Dougl. ex Loud.) Dougl. ex Forbes

Common name: PACIFIC SILVER FIR
Family: PINACEAE
Global rank: G4
State rank: S3
Occurrence: Tongass National Forest

Abies lasiocarpa (Hook.) Nutt.

Common name: SUBALPINE FIR
Family: PINACEAE
Global rank: G5
State rank: S4
Occurrence: Chugach National Forest Watch List
Tongass National Forest

Agoseris aurantiaca (Hook.) Greene

Common name: ORANGE AGOSERIS
Family: ASTERACEAE
Global rank: G5
State rank: S1
Occurrence: Tongass National Forest

Agoseris glauca (Pursh) Raf.

Common name: PALE AGOSERIS
Family: ASTERACEAE
Global rank: G4G5
State rank: S1
Occurrence: Tongass National Forest

Agrostis thurberiana A.S. Hitchc.

Common name: THURBER BENTGRASS
Family: POACEAE
Global rank: G5
State rank: S2
Occurrence: Chugach National Forest
Tongass National Forest

Androsace chamaejasme ssp lehmanniana (Spreng.) Hultén

Common name: LEHMANN SWEET-FLOWERED FAIRY-CANDELABRA
Family: PRIMULACEAE
Global rank: G5T5
State rank: S5
Occurrence: Tongass National Forest

Arctostaphylos alpina (L.) Spreng.

Common name: ALPINE BEARBERRY
Family: ERICACEAE
Global rank: G5
State rank: S5

Occurrence: Tongass National Forest

Part Four

Armeria maritima Willd.

Common name: WESTERN THRIFT
Family: PLUMBAGINACEAE
Global rank: G5
State rank: S4
Occurrence: Chugach National Forest Watch List
Tongass National Forest

Asplenium trichomanes L.

Common name: MAIDENHAIR SPLEENWORT
Family: ASPLENIACEAE
Global rank: G5
State rank: S1
Occurrence: Tongass National Forest

Betula papyrifera var commutata (Regel) Fern.

Common name: WESTERN PAPER BIRCH
Family: BETULACEAE
Global rank: G5T5
State rank: S2
Occurrence: Tongass National Forest

Botrychium virginianum var europaeum Angstr.

Common name: RATTLESNAKE FERN
Family: OPHIOGLOSSACEAE
Global rank: G5T5
State rank: S1S2
Occurrence: Chugach National Forest
Tongass National Forest

Brasenia schreberi J.F. Gmel.

Common name: WATERSHIELD
Family: NYMPHAEACEAE
Global rank: G5
State rank: S1
Occurrence: Tongass National Forest

Caltha biflora DC.

Common name: TWO-FLOWERED MARSH MARIGOLD
Family: RANUNCULACEAE
Global rank: G5
State rank: S2
Occurrence: Tongass National Forest

Potential Sensitive Vascular Plant Taxa

Calypso bulbosa (L.) Oakes

Common name: FAIRY SLIPPER
Family: ORCHIDACEAE
Global rank: G5
State rank: S4
Occurrence: Chugach National Forest Watch List
Tongass National Forest

Campanula scouleri Hook. ex A. DC.

Common name: SCOULER BELLFLOWER
Family: CAMPANULACEAE
Global rank: G5
State rank: S1
Occurrence: Tongass National Forest

Cardamine angulata Hook.

Common name: SEASIDE BITTER-CRESS
Family: BRASSICACEAE
Global rank: G5
State rank: S3
Occurrence: Tongass National Forest

Cardamine pratensis var angustifolia (Hook.) O. E. Schulz

Common name: CUCKOO FLOWER
Family: BRASSICACEAE
Global rank: G5T5
State rank: S5
Occurrence: Tongass National Forest

Carex athrostachya Olney

Common name: SLENDER BEAK SEDGE
Family: CYPERACEAE
Global rank: G5
State rank: S1S2
Occurrence: Chugach National Forest
Tongass National Forest

Carex atratifomis ssp raymondii (Calder) Pors.

Common name: RAYMOND NORTHERN BLACKENED SEDGE
Family: CYPERACEAE
Global rank: G5T5
State rank: S2
Occurrence: Chugach National Forest Watch List
Tongass National Forest

Part Four

Carex bebbii (Bailey) Olney ex Fern.

Common name: BEBB SEDGE
Family: CYPERACEAE
Global rank: G5
State rank: S1
Occurrence: Tongass National Forest

Carex interior Bailey

Common name: INLAND SEDGE
Family: CYPERACEAE
Global rank: G5
State rank: S1
Occurrence: Chugach National Forest
Tongass National Forest

Carex preslii Steud.

Common name: PRESL SEDGE
Family: CYPERACEAE
Global rank: G4
State rank: S1
Occurrence: Chugach National Forest
Tongass National Forest

Carex ramenskii Komarov

Common name: RAMENSKI SEDGE
Family: CYPERACEAE
Global rank: G4Q
State rank: S4
Occurrence: Chugach National Forest

Carex stipata Muhl.

Common name: SAWBEAK SEDGE
Family: CYPERACEAE
Global rank: G5
State rank: S1
Occurrence: Chugach National Forest
Tongass National Forest

Castilleja miniata Dougl. ex Hook.

Common name: GREATER RED INDIAN-PAINTBRUSH
Family: SCROPHULARIACEAE
Global rank: G4G5
State rank: S3
Occurrence: Tongass National Forest

Potential Sensitive Vascular Plant Taxa

Chamaecyparis nootkatensis (Lamb.) Spach

Common name: ALASKA CEDAR
Family: CUPRESSACEAE
Global rank: G4
State rank: S4
Occurrence: Chugach National Forest
Tongass National Forest

Chimaphila umbellata ssp occidentalis (Rydb.) Hultén

Common name: PIPSISSEWA
Family: ERICACEAE
Global rank: G5T5
State rank: S3
Occurrence: Tongass National Forest

Cirsium foliosum (Hook.) DC.

Common name: LEAFY THISTLE
Family: ASTERACEAE
Global rank: G5
State rank: S1
Occurrence: Tongass National Forest

Crassula aquatica (L.) Schoenl.

Common name: WATER PIGMY-WEED
Family: CRASSULACEAE
Global rank: G5
State rank: S3
Occurrence: Chugach National Forest
Tongass National Forest

Crataegus douglasii var douglasii Lindl.

Common name: BLACK HAWTHORN
Family: ROSACEAE
Global rank: G4T4
State rank: S1S2
Occurrence: Chugach National Forest Watch List
Tongass National Forest

Crepis elegans Hook.

Common name: ELEGANT HAWKSBEARD
Family: ASTERACEAE
Global rank: G5
State rank: S5
Occurrence: Chugach National Forest Watch List
Tongass National Forest

Part Four

- Cryptogramma stelleri (Gmel.) Prantl
Common name: FRAGILE ROCKBRAKE
Family: ADIANTACEAE
Global rank: G5
State rank: S2S3
Occurrence: Tongass National Forest
- Cypripedium calceolus ssp parviflorum (Salisb.) Hultén
Common name: YELLOW LADYSLIPPER
Family: ORCHIDACEAE
Global rank: G5T5
State rank: S2
Occurrence: Tongass National Forest
- Cypripedium montanum Dougl. ex Lindl.
Common name: MOUNTAIN LADYSLIPPER
Family: ORCHIDACEAE
Global rank: G4G5
State rank: S1
Occurrence: Tongass National Forest
- Cystopteris montana (Lam.) Bernh.
Common name: MOUNTAIN FRAGILE-FERN
Family: ASPIDIACEAE
Global rank: G4
State rank: S3
Occurrence: Chugach National Forest Watch List
Tongass National Forest
- Dactylorhiza aristata (Fisch. ex Lindl.) Soo
Common name: KEY FLOWER
Family: ORCHIDACEAE
Global rank: G4
State rank: S4
Occurrence: Chugach National Forest
- Danthonia spicata (L.) Beauv. ex Roemer & Schultes
Common name: POVERTY OAT-GRASS
Family: POACEAE
Global rank: G5
State rank: S1
Occurrence: Tongass National Forest
- Diapensia lapponica var obovata F. Schmidt
Common name: DIAPENSIA
Family: DIAPENSIACEAE
Global rank: G5T5
State rank: S5
Occurrence: Tongass National Forest

Potential Sensitive Vascular Plant Taxa

Dryas integrifolia M. Vahl

Common name: ENTIRE-LEAVED MOUNTAIN-AVENS
Family: ROSACEAE
Global rank: G5
State rank: S5
Occurrence: Tongass National Forest

Eleocharis kamtschatica (C.A. Mey.) Komarov

Common name: KAMCHATKA SPIKE-RUSH
Family: CYPERACEAE
Global rank: G4
State rank: S2
Occurrence: Chugach National Forest
Tongass National Forest

Eriophorum viridicarinum (Engelm.) Fern.

Common name: GREEN KEELED COTTON GRASS
Family: CYPERACEAE
Global rank: G5
State rank: S2
Occurrence: Chugach National Forest
Tongass National Forest Watchlist

Euphrasia mollis (Ledeb.) Wettst.

Common name: SUBALPINE EYEBRIGHT
Family: SCROPHULARIACEAE
Global rank: G4
State rank: S4
Occurrence: Chugach National Forest
Tongass National Forest

Galium kamtschaticum Steller ex Schultes & Schultes

Common name: BOREAL BEDSTRAW
Family: RUBIACEAE
Global rank: G5
State rank: S2
Occurrence: Chugach National Forest Watch List
Tongass National Forest

Geocaulon lividum (Richards.) Fern.

Common name: NORTHERN COMANDRA
Family: SANTALACEAE
Global rank: G5
State rank: S5
Occurrence: Chugach National Forest
Tongass National Forest

Part Four

Geum aleppicum var strictum (Ait.) Fern.

Common name: YELLOW AVENS
Family: ROSACEAE
Global rank: G5T5
State rank: S1S2
Occurrence: Chugach National Forest
Tongass National Forest Watchlist

Glehnia littoralis ssp leiocarpa (Mathias) Hultén

Common name: AMERICAN GLEHNIA
Family: APIACEAE
Global rank: G5T5
State rank: S3
Occurrence: Chugach National Forest

Glyceria striata var stricta (Scribn.) Fern.

Common name: FOWL MANNAGRASS
Family: POACEAE
Global rank: G5T5Q
State rank: S2
Occurrence: Chugach National Forest
Tongass National Forest Watchlist

Juncus articulatus L.

Common name: JOINTED RUSH
Family: JUNCACEAE
Global rank: G5
State rank: S1
Occurrence: Tongass National Forest

Juncus nodosus L.

Common name: KNOTTED RUSH
Family: JUNCACEAE
Global rank: G5
State rank: S2
Occurrence: Tongass National Forest

Lactuca biennis (Moench) Fern.

Common name: TALL BLUE LETTUCE
Family: ASTERACEAE
Global rank: G5
State rank: S1
Occurrence: Tongass National Forest

Lathyrus ochroleucus Hook.

Common name: PALE VETCHLING PEAVINE
Family: FABACEAE
Global rank: G4G5
State rank: S1
Occurrence: Tongass National Forest

Potential Sensitive Vascular Plant Taxa

Lathyrus venosus var intonsus Butters & St. John

Common name: A PEAVINE
Family: FABACEAE
Global rank: G5T5
State rank: S1
Occurrence: Tongass National Forest

Limosella aquatica L.

Common name: NORTHERN MUDWORT
Family: SCROPHULARIACEAE
Global rank: G5
State rank: S3
Occurrence: Chugach National Forest
Tongass National Forest Watchlist

Listera convallarioides (Sw.) Nutt. ex. Ell.

Common name: BROAD-LEAVED TWAYBLADE
Family: ORCHIDACEAE
Global rank: G5
State rank: S1
Occurrence: Tongass National Forest

Lonicera involucrata (Richards.) Banks

Common name: BEARBERRY HONEYSUCKLE
Family: CAPRIFOLIACEAE
Global rank: G4G5
State rank: S2
Occurrence: Chugach National Forest
Tongass National Forest

Lupinus lepidus Dougl. ex Lindl.

Common name: PRAIRIE LUPINE
Family: FABACEAE
Global rank: G5
State rank: S1
Occurrence: Tongass National Forest

Luzula campestris var congesta (Thuill.) E. Meyer

Common name: CONGESTED FIELD WOODRUSH
Family: JUNCACEAE
Global rank: G5T4Q
State rank: S1
Occurrence: Tongass National Forest

Lycopodium inundatum L.

Common name: NORTHERN BOG CLUBMOSS
Family: LYCOPODIACEAE
Global rank: G5
State rank: S3

Occurrence: Tongass National Forest

Part Four

Lycopus uniflorus Michx.

Common name: NORTHERN BUGLEWEED
Family: LAMIACEAE
Global rank: G5
State rank: S3
Occurrence: Tongass National Forest

Lysimachia thyrsiflora L.

Common name: WATER LOOSESTRIFE
Family: PRIMULACEAE
Global rank: G5
State rank: S4
Occurrence: Chugach National Forest
Tongass National Forest

Malaxis monophyllos var monophyllos (L.) Sw.

Common name: WHITE ADDER'S-TONGUE
Family: ORCHIDACEAE
Global rank: G5T5
State rank: S3S4
Occurrence: Chugach National Forest Watch List
Tongass National Forest

Malaxis paludosa (L.) Sw.

Common name: BOG ADDER'S-MOUTH
Family: ORCHIDACEAE
Global rank: G5
State rank: S2
Occurrence: Chugach National Forest Watch List
Tongass National Forest

Melica subulata (Griseb.) Scribn.

Common name: NODDING FESCUE
Family: POACEAE
Global rank: G5
State rank: S2
Occurrence: Tongass National Forest

Mimulus lewisii Pursh

Common name: LEWIS MONKEYFLOWER
Family: SCROPHULARIACEAE
Global rank: G5
State rank: S1
Occurrence: Tongass National Forest

Potential Sensitive Vascular Plant Taxa

Mitella nuda L.

Common name: NAKED BISHOP'S-CAP
Family: SAXIFRAGACEAE
Global rank: G5
State rank: S2
Occurrence: Tongass National Forest

Mitella trifida Graham

Common name: PACIFIC BISHOP'S-CAP
Family: SAXIFRAGACEAE
Global rank: G5
State rank: S2
Occurrence: Tongass National Forest

Monotropa uniflora L.

Common name: INDIAN-PIPE
Family: ERICACEAE
Global rank: G5
State rank: S1S2
Occurrence: Tongass National Forest

Myriophyllum verticillatum L.

Common name: WHORLED WATER-MILFOIL
Family: HALORAGACEAE
Global rank: G5
State rank: S3
Occurrence: Tongass National Forest

Nymphaea tetragona ssp leibergii (Morong) Porsild

Common name: PYGMY WATERLILY
Family: NYMPHAEACEAE
Global rank: G5T5Q
State rank: S5
Occurrence: Chugach National Forest Watch List
Tongass National Forest

Pedicularis macrodonta Richards.

Common name: MUSKEG LOUSEWORT
Family: SCROPHULARIACEAE
Global rank: G4
State rank: S3
Occurrence: Chugach National Forest
Tongass National Forest

Penstemon serrulatus Menzies ex Sm.

Common name: CASCADE BEARDTONGUE
Family: SCROPHULARIACEAE
Global rank: G4
State rank: S1

Occurrence: Tongass National Forest

Part Four

Phacelia franklinii (R. Br.) Gray

Common name: FRANKLIN'S PHACELIA
Family: HYDROPHYLLACEAE
Global rank: G4
State rank: S2S3
Occurrence: Tongass National Forest

Phyllodoce empetriformis (Sm.) D. Don

Common name: PINK MOUNTAIN-HEATH
Family: ERICACEAE
Global rank: G4
State rank: S1S2
Occurrence: Tongass National Forest

Physocarpus capitatus (Pursh) Kuntze

Common name: PACIFIC NINEBARK
Family: ROSACEAE
Global rank: G5
State rank: S2S3
Occurrence: Tongass National Forest

Pinus contorta var latifolia Engelm. ex S. Wats.

Common name: LODGEPOLE PINE
Family: PINACEAE
Global rank: G5T5
State rank: S3
Occurrence: Tongass National Forest

Piperia unalascensis (Spreng.) Rydb.

Common name: ALASKAN REIN-ORCHID
Family: ORCHIDACEAE
Global rank: G5
State rank: S2
Occurrence: Chugach National Forest
Tongass National Forest

Plagiobothrys cognatus (Greene) Johnson

Common name: A POPCORN-FLOWER
Family: BORAGINACEAE
Global rank: G5Q
State rank: S5
Occurrence: Chugach National Forest Watch List
Tongass National Forest

Platanthera orbiculata (Pursh) Lindl.

Common name: LARGE ROUNDLEAF ORCHID
Family: ORCHIDACEAE
Global rank: G5?
State rank: S1

Occurrence: Tongass National Forest

Potential Sensitive Vascular Plant Taxa

Poa ampla Merr.

Common name: MERRILL'S BLUEGRASS
Family: POACEAE
Global rank: G5
State rank: S1
Occurrence: Tongass National Forest

Poa douglasii ssp macrantha (Vasey) Keck

Common name: SEASHORE BLUEGRASS
Family: POACEAE
Global rank: G5T5
State rank: S1
Occurrence: Chugach National Forest
Tongass National Forest

Poa leptocoma Trin.

Common name: BOG BLUEGRASS
Family: POACEAE
Global rank: G5
State rank: S2
Occurrence: Chugach National Forest Watch List
Tongass National Forest

Poa occidentalis Vasey

Common name: TALL WESTERN BLUEGRASS
Family: POACEAE
Global rank: G4
State rank: S1
Occurrence: Chugach National Forest

Poa scabrella (Thurb.) Benth.

Common name: PINE BLUEGRASS
Family: POACEAE
Global rank: G5
State rank: S1
Occurrence: Tongass National Forest

Rhododendron camtschaticum ssp camtschaticum Pall.

Common name: KAMCHATKA RHODODENDRON
Family: ERICACEAE
Global rank: G5T5
State rank: S5
Occurrence: Chugach National Forest
Tongass National Forest

Part Four

Rorippa obtusa (Nutt.) Britt.

Common name: BLUNT-LEAVED YELLOWCRESS
Family: BRASSICACEAE
Global rank: G5
State rank: S1
Occurrence: Tongass National Forest

Salicornia europaea L.

Common name: JOINTED GLASSWORT
Family: CHENOPODIACEAE
Global rank: G5NE
State rank: S2
Occurrence: Chugach National Forest

Salix hookeriana Barratt ex Hook.

Common name: HOOKER WILLOW
Family: SALICACEAE
Global rank: G5
State rank: S2
Occurrence: Chugach National Forest
Tongass National Forest

Salix prolixa Andersson

Common name: MACKENZIE WILLOW
Family: SALICACEAE
Global rank: G5
State rank: S1
Occurrence: Tongass National Forest

Satureja douglasii (Benth.) Briq.

Common name: DOUGLAS SAVORY
Family: LAMIACEAE
Global rank: G4
State rank: S1
Occurrence: Tongass National Forest

Saussurea americana D.C. Eat.

Common name: AMERICAN SAW-WORT
Family: ASTERACEAE
Global rank: G5
State rank: S2
Occurrence: Tongass National Forest

Scirpus rufus (Huds.) Schrad.

Common name: RED BULRUSH
Family: CYPERACEAE
Global rank: G5
State rank: S1
Occurrence: Chugach National Forest

Potential Sensitive Vascular Plant Taxa

Scirpus subterminalis Torr.
Common name: WATER BULRUSH
Family: CYPERACEAE
Global rank: G4G5
State rank: S1
Occurrence: Tongass National Forest

Sedum lanceolatum Torr.
Common name: LANCE-LEAVED STONECROP
Family: CRASSULACEAE
Global rank: G5
State rank: S1S2
Occurrence: Tongass National Forest

Sedum oreganum Nutt.
Common name: OREGON STONECROP
Family: CRASSULACEAE
Global rank: G5
State rank: S3
Occurrence: Tongass National Forest

Smilacina racemosa (L.) Desf.
Common name: FALSE SOLOMON'S-SEAL
Family: LILIACEAE
Global rank: G5
State rank: S2
Occurrence: Tongass National Forest

Smilacina stellata (L.) Desf.
Common name: STARFLOWER FALSE SOLOMON'S-SEAL
Family: LILIACEAE
Global rank: G5
State rank: S2
Occurrence: Chugach National Forest
Tongass National Forest

Spiraea douglasii Hook.
Common name: DOUGLAS SPIRAEA
Family: ROSACEAE
Global rank: G5
State rank: S2
Occurrence: Tongass National Forest

Stachys mexicana Benth.
Common name: MEXICAN HEDGE-NETTLE
Family: LAMIACEAE
Global rank: G5
State rank: S1
Occurrence: Tongass National Forest

Part Four

Stellaria crassifolia Ehrh.

Common name: FLESHY STITCHWORT
Family: CARYOPHYLLACEAE
Global rank: G4
State rank: S4
Occurrence: Chugach National Forest
Tongass National Forest

Symphoricarpos albus var laevigatus (Fern.) Blake

Common name: SNOWBERRY
Family: CAPRIFOLIACEAE
Global rank: G5T5Q
State rank: S2
Occurrence: Tongass National Forest

Taxus brevifolia Nutt.

Common name: PACIFIC YEW
Family: TAXACEAE
Global rank: G4
State rank: S2
Occurrence: Tongass National Forest

Thuja plicata D. Don

Common name: WESTERN RED CEDAR
Family: CUPRESSACEAE
Global rank: G5
State rank: S3
Occurrence: Tongass National Forest

Trifolium wormskjoldii Lehm.

Common name: WORMSKJOLD CLOVER
Family: FABACEAE
Global rank: G5
State rank: S1
Occurrence: Tongass National Forest

Vaccinium oxycoccos L.

Common name: SMALL CRANBERRY
Family: ERICACEAE
Global rank: G5
State rank: S1
Occurrence: Tongass National Forest

Veronica wormskjoldii var stelleri (Pallas) Welsh

Common name: STELLER ALPINE SPEEDWELL
Family: SCROPHULARIACEAE
Global rank: G4G5T4
State rank: S4

Occurrence: Chugach National Forest
Tongass National Forest

Potential Sensitive Vascular Plant Taxa

Vicia americana Muhl. ex Willd.

Common name: AMERICAN PURPLE VETCH
Family: FABACEAE
Global rank: G5
State rank: S2
Occurrence: Tongass National Forest

Viola selkirkii Pursh ex Goldie

Common name: GREAT-SPURRED VIOLET
Family: VIOLACEAE
Global rank: G5?
State rank: S3
Occurrence: Chugach National Forest
Tongass National Forest

Viola sempervirens Greene

Common name: REDWOOD VIOLET
Family: VIOLACEAE
Global rank: G5
State rank: S1
Occurrence: Tongass National Forest

**PART FIVE: DOCUMENTED RARE VASCULAR PLANT OCCURRENCES, BY FOREST
AND RANGER DISTRICT**

Part Five consists of a series of lists of rare vascular plant species known to occur on each of the Ranger Districts of the Chugach and Tongass National Forests. These lists are far from complete. There are rare taxa on many Ranger Districts that are not included in these lists. These lists represent only those occurrences mentioned in the literature or documented by herbarium specimens. Further field surveys will make this table much more complete and useful. This is part of a growing and dynamic database of rare plant occurrences.

Documented Rare Plant Occurrences

CHUGACH NATIONAL FOREST:

<u>Common name</u>	<u>Global Rank</u>	<u>State Rank</u>
Cordova Ranger District:		
<u>Arnica lessingii</u> ssp <u>norbergii</u>	NORBERG ARNICA	G5T1Q S1
<u>Isoetes truncata</u>	TRUNCATE QUILLWORT	G1G2Q S1
<u>Lysimachia thyrsiflora</u>	WATER LOOSESTRIFE	G5 S4
<u>Phyllospadix serrulatus</u>	SERRULATE SURF-GRASS	G3 S2
<u>Romanzoffia unalascensis</u>	UNALASKA MIST-MAID	G2G3 S2S3
<u>Salix hookeriana</u>	HOOKER WILLOW	G5 S2

Glacier Ranger District:

<u>Arnica lessingii</u> ssp <u>norbergii</u>	NORBERG ARNICA	G5T1Q S1
<u>Carex lenticularis</u> var <u>dolia</u>	GOOSE-GRASS SEDGE	G5T2 S2
<u>Papaver alboroseum</u>	PALE POPPY	G3
S2S3		
<u>Platanthera chorisiana</u>	CHORISO BOG-ORCHID	G2G3 S2
<u>Poa laxiflora</u>	LOOSE-FLOWERED BLUEGRASS	G3 S2

Seward Ranger District:

<u>Agrostis thurberiana</u>	THURBER BENTGRASS	G5 S2
<u>Arnica diversifolia</u>	STICKY ARNICA	G5 S1
<u>Carex preslii</u>	PRESL SEDGE	G4 S1
<u>Draba kananaskis</u>	TUNDRA WHITLOW-GRASS	G1 S1
<u>Draba lactea</u>	MILKY WHITLOW-GRASS	G4? S3
<u>Eleocharis kamtschatica</u>	KAMCHATKA SPIKE-RUSH	G4 S2
<u>Papaver alboroseum</u>	PALE POPPY	G3 S2S3
<u>Pedicularis macrodonta</u>	MUSKEG LOUSEWORT	G4 S3
<u>Stellaria crassifolia</u>	FLESHY STARWORT	G4 S4

Part Five

TONGASS NATIONAL FOREST: CHATHAM AREA

	<u>Common name</u>	<u>Global Rank</u>	<u>State Rank</u>
Admiralty Island National Monument:			
<u>Poa laxiflora</u>	LOOSE-FLOWERED BLUEGRASS	G3	S2
Hoonah Ranger District:			
<u>Agrostis thurberiana</u>	THURBER BENTGRASS	G5	S2
<u>Eleocharis kamschatica</u>	KAMCHATKA SPIKE-RUSH	G4	S2
<u>Galium kamschaticum</u>	BOREAL BEDSTRAW	G5	
S2 <u>Malaxis monophyllos</u>	WHITE ADDER'S-TONGUE	G5T5	
S3S4 <u>var monophyllos</u>			
<u>Platanthera chorisiana</u>	CHORISO BOG-ORCHID	G2G3	S2
<u>Rhododendron kamschaticum</u>	KAMCHATKA	G5T5	S5
<u>ssp kamschaticum</u>	RHODODENDRON		
Juneau Ranger District:			
<u>Abies lasiocarpa</u>	SUBALPINE FIR	G5	S4
<u>Arnica lessingii ssp norbergii</u>	NORBERG ARNICA	G5T1Q	S1
<u>Betula papyrifera var commutata</u>	WESTERN PAPER BIRCH	G5T5	
S2 <u>Carex interior</u>	INLAND SEDGE	G5	
S1 <u>Carex lenticularis var dolia</u>	GOOSE-GRASS SEDGE		G5T2
S2 <u>Draba borealis var maxima</u>	NORTHERN ROCKCRESS		
G5T2Q S2 <u>Galium kamschaticum</u>	BOREAL BEDSTRAW		
G5 S2 <u>Malaxis monophyllos</u>	WHITE		
ADDER'S-TONGUE G5T5 S3S4 <u>var monophyllos</u>			
<u>Mitella nuda</u>	NAKED BISHOP'S-CAP	G5	S2
<u>Phyllodoce empetrifomis</u>	PINK MOUNTAIN-HEATH	G4	
S1S2 <u>Platanthera chorisiana</u>	CHORISO BOG-ORCHID	G2G3	
S2 <u>Poa laxiflora</u>	LOOSE-FLOWERED BLUEGRASS		G3
S2			
<u>Puccinellia kamschatica</u>	ALASKA ALKALI GRASS	G2Q	S2

Documented Rare Plant Occurrences

TONGASS NATIONAL FOREST: CHATHAM AREA (continued)

	<u>Common name</u>	<u>Global Rank</u>	<u>State Rank</u>
Sitka Ranger District:			
<u>Carex interior</u>	INLAND SEDGE	G5	S1
<u>Galium kamtschaticum</u>	BOREAL BEDSTRAW	G5	S2
<u>Hymenophyllum wrightii</u>	WRIGHT FILMY-FERN	G3G4	
S1 <u>Isoetes truncata</u>	TRUNCATE QUILLWORT	G1G2Q	
S1 <u>Phyllospadix serrulatus</u>	SERRULATE SURF-GRASS	G3	
S2 <u>Platanthera chorisiana</u>	CHORISO BOG-ORCHID		
G2G3 S2 <u>Romanzoffia unalaschcensis</u>	UNALASKA MIST-MAID		
G2G3 S2S3 <u>Scirpus subterminalis</u>	WATER RUSH		
G4G5 S1 <u>Spiraea douglasii</u>	DOUGLAS SPIRAEA		
G5 S2			

Yakutat Ranger District:

<u>Castilleja chrymactis</u>	A PAINTBRUSH	G1Q	S1
<u>Eleocharis kamtschatica</u>	KAMCHATKA SPIKE-RUSH	G4	S2
<u>Glehnia littoralis</u>	AMERICAN GLEHNIA	G5T5	
S3 <u>ssp leiocarpa</u>			
<u>Rhododendron camtschaticum</u>	KAMCHATKA		G5T5
S5 <u>ssp camtschaticum</u>	RHODODENDRON		
<u>Salix hookeriana</u>	HOOKER WILLOW		G5
S2 <u>Stellaria ruscifolia</u>	CIRCUMPOLAR STARWORT		
G4T2T3 S2S3 <u>ssp aleutica</u>			
<u>Veronica wormskjoldii</u>	STELLER ALPINE		
G4G5T4Q S4 <u>var stelleri</u>	SPEEDWELL		

Part Five

TONGASS NATIONAL FOREST: KETCHIKAN AREA

	<u>Common name</u>	<u>Global Rank</u>	<u>State Rank</u>
Craig Ranger District:			
<u>Castilleja chrymactis</u>	A PAINTBRUSH	G1Q	S1
<u>Galium kamtschaticum</u>	BOREAL BEDSTRAW	G5	S2
<u>Ligusticum calderi</u>	CALDER LOVAGE	G3	S1
<u>Malaxis paludosa</u>	BOG ADDER'S-MOUTH	G5	S2
<u>Phyllospadix serrulatus</u>	SERRULATE SURF-GRASS	G3	
S2 <u>Ranunculus orthorhynchus</u>	STRAIGHT-BEAK		G5T2Q
S2 <u>var alaschensis</u>	BUTTERCUP		
<u>Senecio moresbiensis</u>	QUEEN CHARLOTTE BUTTERWEED	G3	S1

Ketchikan Ranger District:

<u>Abies lasiocarpa</u>	SUBALPINE FIR	G5	S4
<u>Betula papyrifera</u> var <u>commutata</u>	WESTERN PAPER BIRCH	G5T5	S2
<u>Brasenia schreberi</u>	WATERSHIELD	G5	
S1 <u>Caltha biflora</u>	TWO-FLOWERED MARSH	G5	
S2	MARIGOLD		
<u>Carex lenticularis</u> var <u>dolia</u>	GOOSE-GRASS SEDGE	G5T2	S2
<u>Castilleja chrymactis</u>	A PAINTBRUSH	G1Q	S1
<u>Cirsium edule</u>	EDIBLE THISTLE	G3	
S1 <u>Danthonia spicata</u>	POVERTY OAT-GRASS	G5	
S1 <u>Eleocharis kamtschatica</u>	KAMCHATKA SPIKE-RUSH	G4	
S2 <u>Lupinus lepidus</u>	PRAIRIE LUPINE	G5	
S1 <u>Mimulus lewisii</u>	LEWIS MONKEYFLOWER	G5	
S1 <u>Penstemon serrulatus</u>	CASCADE BEARDTONGUE	G4	
S1 <u>Platanthera gracilis</u>	SLENDER BOG-ORCHID		
G2Q S2 <u>Ranunculus orthorhynchus</u>	STRAIGHT-BEAK		
G5T2Q S2 <u>alaschensis</u>	BUTTERCUP		
<u>Spiraea douglasii</u>	DOUGLAS SPIRAEA		
G5 S2 <u>Taxus brevifolia</u>	PACIFIC YEW		
G4 S2			

Misty Fiords National Monument:

<u>Abies amabilis</u>	PACIFIC SILVER FIR	G4	S3
<u>Carex lenticularis</u> var <u>dolia</u>	GOOSE-GRASS SEDGE	G5T2	S2

Documented Rare Plant Occurrences

TONGASS NATIONAL FOREST: KETCHIKAN AREA (continued)

	<u>Common name</u>	<u>Global Rank</u>	<u>State Rank</u>
Thorne Bay Ranger District:			
<u>Androsace chamaejasme</u> ssp <u>lehmanniana</u>	LEHMANN SWEET- FLOWERED FAIRY- CANDELABRA	G5T5	S5
<u>Glyceria leptostachya</u>	DAVY MANNAGRASS	G3	S1S2
<u>Physocarpus capitatus</u>	PACIFIC NINEBARK	G5	
S2S3 <u>Ranunculus orthorhynchus</u>	STRAIGHT-BEAK		G5T2Q
S2 ssp <u>alascensis</u>	BUTTERCUP		
S1 <u>Senecio moresbiensis</u>	QUEEN CHARLOTTE BUTTERWEED		G3
<u>Taxus brevifolia</u>	PACIFIC YEW	G4	S2

Part Five

TONGASS NATIONAL FOREST: STIKINE AREA

	<u>Common name</u>	<u>Global Rank</u>	<u>State Rank</u>
Petersburg Ranger District:			
<u>Castilleja miniata</u>	GREATER RED INDIAN- PAINTBRUSH	G4G5	S3
<u>Castilleja chrymactis</u>	A PAINTBRUSH	G1Q	S1
<u>Hymenophyllum wrightii</u>	WRIGHT FILMY-FERN	G3G4	S1
<u>Puccinellia hulténii</u>	HULTÉN ALKALI GRASS	G2Q	
S2 <u>Spiraea douglasii</u>	DOUGLAS SPIRAEA	G5	
S2			
Wrangell Ranger District:			
<u>Campanula scouleri</u>	SCOULER HAREBELL	G5	S1
<u>Glyceria leptostachya</u>	DAVY MANNAGRASS	G3	
S1S2 <u>Lycopodium inundatum</u>	BOG CLUBMOSS		G5
S3 <u>Lysimachia thyrsiflora</u>	WATER LOOSESTRIFE		G5
S4 <u>Ranunculus orthorhynchus</u>	STRAIGHT-BEAK		
G5T2Q S2 <u>ssp alaschensis</u>	BUTTERCUP		
<u>Salix prolixa</u>	MACKENZIE WILLOW	G5	S1
<u>Spiraea douglasii</u>	DOUGLAS SPIRAEA	G5	S2

**PART SIX: TAXA NO LONGER INCLUDED FOR CONSIDERATION FOR
SENSITIVE SPECIES DESIGNATION**

Several taxa which were included in our January 1991 report on the rare plant taxa of Region 10 are not included in the present list. These are taxa which, upon closer examination, have been determined not to be distinct from other, more widespread species. A list of these taxa which have been withdrawn follows, with a brief explanation of the basis for withdrawal for each species.

Atriplex drymarioides Standley:

This questionable taxon is placed in synonymy by most students of the genus. Examination of specimens at ALA, US, CAN, and DAO substantiate this view. Welsh (1974) considers the taxon an ecotype of Atriplex patula var obtusa (Cham.) C.L. Hitchc. which occurs below the level of high tide. Bassett, et al. (1983) include both Atriplex patula var obtusata and A. drymarioides in A. gmelini C.A. Mey.

Poa brachyanthera Hultén

Poa brachyanthera is placed in synonymy with P. pseudoabbreviata Roshev. Hultén, the species' author, accepted the view of Tsvelev (1964) that Poa brachyanthera Hultén is a synonym of P. pseudoabbreviata (Hultén, 1973).

Poa eyerdamii Hultén

No verified collections of Poa eyerdamii have been documented since 1936. The taxon is placed in synonymy with P. pratensis L. by Welsh (1974) and others. The type collection from Port Hobron was determined by R.J. Soreng (1989) to be Poa nemoralis L. The paratype from Orca was determined by Soreng (1989) to be Poa stenantha Trin.

Poa merrilliana Hitchc.

No verified collections are known since the original collection of 1899. This questionable taxon is considered similar to, but more robust than, Poa brachyanthera Hultén (= Poa pseudoabbreviata Roshev.) by Hultén, 1941. It is placed in synonymy with Poa leptocoma Trin. by Welsh (1974).

Soreng, 1991, includes Poa merrilliana in Poa paucispicula Scrib. & Merr. and states that "Poa merrilliana was described as lacking a web on the callus. The type collection of Poa merrilliana is immature, but does have a distinct, if somewhat sparse, web, and is otherwise indistinguishable from Poa paucispicula s. str. Most other material at US labeled or annotated by earlier workers as P. merrilliana is referable to Poa pseudoabbreviata."

Poa norbergii Hultén

No verified collections are known since the original collection of 1932. This questionable taxon is considered closely related to Poa lanata Scribn. & Merr. by Hultén (1941). It is placed in synonymy with Poa macrocalyx Trautv. & Mey. (along with P. lanata, P. hispídula Vasey, and P. turneri Scribn.) by Welsh (1974). The isotype of the species was determined by R.J. Soreng (1990) as a hybrid: "P. pratensis L. X ?".

Puccinellia hulténii Swallen

A poorly defined taxon in a difficult genus. It is placed in synonymy by Welsh (1974) in P. nutkaensis (Presl) Fern. & Wealth, where it is considered to represent an ecological phase of P. nutkaensis occurring slightly below high tide. The isotype of P. hulténii was determined by Jerrold I. Davis (1983) as Puccinellia pumila (Vasey) Hitchc. (which is considered to be closely related to P. nutkaensis).

Rhinanthus arcticus (Sterneck) Pennell

Rhinanthus arcticus is described as a doubtful species by Hultén, 1968. It is placed in synonymy with Rhinanthus crista-galli L. (= Rhinanthus minor ssp borealis (Sterneck) Love = Rhinanthus groenlandicus Chab.) in Welsh, 1974, where it is described as an ill-defined minor variation of a disjunct population. USFS botanist Mary Muller conducted a survey for Rhinanthus arcticus in the Yakutat area during the summer of 1980 and described the species as an indigenous weed which would be best included in R. crista-galli (Muller, 1980). She states that the lumping of R. arcticus into R. crista-galli "seems logical for the following reasons: 1) R. arcticus character variabilities fall within those of R. crista-galli; 2) R. arcticus occurs in the center of the range of R. crista-galli; 3) R. arcticus was split from R. crista-galli on the basis of too little information."

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PART SEVEN: DISTRIBUTION MAPS FOR RAREST TAXA

Distribution maps of those thirty-three rarest plant taxa described in Part Three are presented here. The occurrences plotted on these range maps are based on reports from several different sources. These sources include locational information contained in herbarium specimen labels as well as reports in the literature. Occurrences plotted on USFS Region 10 lands are based on records contained in Alaska Natural Heritage Program files (and are included in the species descriptions of Part Three). Occurrences outside of Region 10 lands are based primarily on reports in the literature, most notably Hultén, 1941 & 1968 (and may not have been verified by AKNHP). Where point location information is not available for part or all of a species' distribution, lines indicate the general range of the taxon.

The precision of the locational data on which the dots are based varies widely. Thus, **these data as presented here should not be incorporated into USFS GIS without first consulting the AKNHP database.**

APPENDIX: ALPHABETIZED LIST OF ALL TAXA TREATED IN REPORT

The following is an alphabetized list of all rare plant taxa occurring on or near USFS Alaska Region lands which are included in this report and are currently tracked by AKNHP. Global and state ranks are as defined in the introduction of this report. "Watch" designation indicates that the taxon has been documented from areas adjacent to, but not on, USFS lands.

	<u>Global</u> <u>Rank</u>	<u>State</u> <u>Rank</u>
<u>Abies amabilis</u>	G4	S3
<u>Abies lasiocarpa</u>	G5	S4
<u>Agoseris glauca</u>	G4G5	S1
<u>Agoseris aurantiaca</u>	G5	S1
<u>Agrostis thurberiana</u>	G5	S2
<u>Androsace chamaejasme</u> ssp <u>lehmanniana</u>	G5T5	S5
<u>Androsace alaskana</u>	G2G3	S2S3
<u>Angelica arguta</u>	G5	SR (Watch)
<u>Antennaria leuchippii</u>	G2Q	SP (Watch)
<u>Aphragmus escholtzianus</u>	G2G3	S2S3
<u>Arabis lyallii</u>	G5	SP (Watch)
<u>Arctostaphylos alpina</u>	G5	S5
<u>Armeria maritima</u>	G5	S4
<u>Arnica diversifolia</u>	G5	S1
<u>Arnica lessingii</u> ssp <u>norbergii</u>	G5T1Q	S1
<u>Artemisia michauxiana</u>	G4G5	SP (Watch)
<u>Asplenium trichomanes</u>	G5	S1
<u>Aster yukonensis</u>	G1Q	S1 (Watch)
<u>Aster brachyactis</u>	G5	SP (Watch)
<u>Atriplex alaskensis</u>	G3G4Q	S3S4
<u>Betula papyrifera</u> var <u>commutata</u>	G5T5	S2
<u>Boschniakia hookeri</u>	G5	SP (Watch)
<u>Botrychium virginianum</u> var <u>europaeum</u>	G5T5	S1S2
<u>Brasenia schreberi</u>	G5	S1
<u>Calamagrostis crassiglumis</u>	G3	S1 (Watch)
<u>Caltha biflora</u>	G5	S2
<u>Calypso bulbosa</u>	G5	S4
<u>Campanula scouleri</u>	G5	S1
<u>Campanula lasiocarpa</u>	G5	S5
<u>Cardamine angulata</u>	G5	S3
<u>Cardamine pratensis</u> var <u>angustifolia</u>	G5T5	S5
<u>Carex interior</u>	G5	S1
<u>Carex stipata</u>	G5	S1
<u>Carex franklinii</u>	G3G4Q	S2 (Watch)
<u>Carex bebbii</u>	G5	S1
<u>Carex atratiformis</u> ssp <u>raymondii</u>	G5T5	S2
<u>Carex parryana</u>	G3G4	S1 (Watch)
<u>Carex athrostachya</u>	G5	S1S2
<u>Carex preslii</u>	G4	S1
<u>Carex ramenskii</u>	G4Q	S4
<u>Carex lenticularis</u> var <u>dolia</u>	G5T2	S2
<u>Cassiope lycopodioides</u> ssp <u>cristapilosa</u>	G3?T2	SP (Watch)
<u>Castilleja villosissima</u>	G1Q	SP (Watch)
<u>Castilleja henryae</u>	G1Q	SP (Watch)
<u>Castilleja chrymactis</u>	G1Q	S1
<u>Castilleja miniata</u>	G4G5	S3

Appendix

	<u>Global</u> <u>Rank</u>	<u>State</u> <u>Rank</u>
<u>Catabrosa aquatica</u>	G5	S1 (Watch)
<u>Cerastium aleuticum</u>	G3	S3 (Watch)
<u>Chamaecyparis nootkatensis</u>	G4	S4
<u>Chimaphila umbellata</u> ssp <u>occidentalis</u>	G5T5	S3
<u>Cirsium edule</u>	G3	S1
<u>Cirsium foliosum</u>	G5	S1
<u>Corispermum hyssopifolium</u>	G5	S3 (Watch)
<u>Crassula aquatica</u>	G5	S3
<u>Crataegus douglasii</u> var <u>douglasii</u>	G4T4	S1S2
<u>Crepis elegans</u>	G5	S5
<u>Cryptogramma stelleri</u>	G5	S2S3
<u>Cypripedium montanum</u>	G4G5	S1
<u>Cypripedium calceolus</u> ssp <u>parviflorum</u>	G5T5	S2
<u>Cystopteris montana</u>	G4	S3
<u>Dactylorhiza aristata</u>	G4	S4
<u>Danthonia spicata</u>	G5	S1
<u>Diapensia lapponica</u> var <u>obovata</u>	G5T5	S5
<u>Dodecatheon pulchellum</u> ssp <u>alaskanum</u>	G5T2Q	S2
<u>Douglasia laevigata</u> var <u>ciliolata</u>	G3?T3?	SR (Watch)
<u>Draba kamtschatica</u>	G3Q	S2
<u>Draba borealis</u> var <u>maxima</u>	G5T2Q	S2
<u>Draba lactea</u>	G4?	S3 (Watch)
<u>Draba ruaxes</u>	G2	S2
<u>Draba kananaskis</u>	G1	S1
<u>Draba aleutica</u>	G2G3	S3 (Watch)
<u>Draba stenopetala</u>	G3	S2 (Watch)
<u>Dryas integrifolia</u>	G5	S5
<u>Eleocharis nitida</u>	G4	S2 (Watch)
<u>Eleocharis kamtschatica</u>	G4	S2
<u>Epilobium leptophyllum</u>	G5	SP (Watch)
<u>Erigeron mexiae</u>	G1Q	S1 (Watch)
<u>Eriophorum viridicarinatum</u>	G5	S2
<u>Euphrasia mollis</u>	G4	S4
<u>Galium kamtschaticum</u>	G5	S2
<u>Gentianella propinqua</u> ssp <u>aleutica</u>	G5T2T4	S2 S4
<u>Geocaulon lividum</u>	G5	S5
<u>Geum aleppicum</u> var <u>strictum</u>	G5T5	S1S2
<u>Geum schofieldii</u>	G1	SP (Watch)
<u>Glehnia littoralis</u> ssp <u>leiocarpa</u>	G5T5	S3
<u>Glyceria leptostachya</u>	G3	S1S2
<u>Glyceria striata</u> var <u>stricta</u>	G5T5Q	S2
<u>Hymenophyllum wrightii</u>	G3G4	S1
<u>Iris missouriensis</u>	G5	SP (Watch)
<u>Isoetes truncata</u>	G1G2Q	S1
<u>Juncus articulatus</u>	G5	S1
<u>Juncus nodosus</u>	G5	S2

	<u>Global</u> <u>Rank</u>	<u>State</u> <u>Rank</u>
<u>Lactuca biennis</u>	G5	S1
<u>Lathyrus venosus</u> var <u>intonsus</u>	G5T5	S1
<u>Lathyrus ochroleucus</u>	G4G5	S1
<u>Lewisia pygmaea</u>	G5	SP (Watch)
<u>Ligusticum calderi</u>	G3	S1
<u>Limosella aquatica</u>	G5	S3
<u>Listera convallarioides</u>	G5	S1
<u>Lonicera involucrata</u>	G4G5	S2
<u>Lupinus lepidus</u>	G5	S1
<u>Luzula campestris</u> var <u>congesta</u>	G5T4Q	S1
<u>Lycopodium inundatum</u>	G5	S3
<u>Lycopus uniflorus</u>	G5	S3
<u>Lysimachia thyrsoiflora</u>	G5	S4
<u>Malaxis monophyllos</u> var <u>monophyllos</u>	G5T5	S3S4
<u>Malaxis paludosa</u>	G5	S2
<u>Melica subulata</u>	G5	S2
<u>Mimulus lewisii</u>	G5	S1
<u>Minuartia biflora</u>	G5	S2 (Watch)
<u>Mitella trifida</u>	G5	S2
<u>Mitella nuda</u>	G5	S2
<u>Monotropa uniflora</u>	G5	S1S2
<u>Montia bostockii</u>	G3	S3 (Watch)
<u>Myriophyllum verticillatum</u>	G5	S3
<u>Nymphaea tetragona</u> ssp <u>leibergii</u>	G5T5Q	S5
<u>Papaver alboroseum</u>	G3	S2S3
<u>Pedicularis macrodonta</u>	G4	S3
<u>Penstemon serrulatus</u>	G4	S1
<u>Phacelia sericea</u>	G5	S2 (Watch)
<u>Phacelia franklinii</u>	G4	S2S3
<u>Phacelia mollis</u>	G2	S2S3 (Watch)
<u>Phyllodoce empetriformis</u>	G4	S1S2
<u>Phyllospadix serrulatus</u>	G3	S2
<u>Physocarpus capitatus</u>	G5	S2S3
<u>Pinus contorta</u> var <u>latifolia</u>	G5T5	S3
<u>Piperia unalascensis</u>	G5	S2
<u>Plagiobothrys cognatus</u>	G5Q	S5
<u>Platanthera gracilis</u>	G2Q	S2
<u>Platanthera chorisiana</u>	G2G3	S2
<u>Platanthera orbiculata</u>	G5?	S1
<u>Poa ampla</u>	G5	S1
<u>Poa douglasii</u> ssp <u>macrantha</u>	G5T5	S1
<u>Poa nevadensis</u>	G3G4	SP (Watch)
<u>Poa scabrella</u>	G5	S1
<u>Poa occidentalis</u>	G4	S1
<u>Poa canbyi</u>	G4G5	S1 (Watch)
<u>Poa leptocoma</u>	G5	S2

Poa turneri
Appendix

G3Q S3

	<u>Global</u> <u>Rank</u>	<u>State</u> <u>Rank</u>
<u>Poa laxiflora</u>	G3	S2
<u>Polystichum kwakiutlii</u>	G1Q	SP (Watch)
<u>Polystichum setigerum</u>	G3	S2
<u>Potentilla hippiana</u>	G5	SP (Watch)
<u>Primula eximia</u>	G5	S4
<u>Puccinellia glabra</u>	G2Q	S2
<u>Puccinellia kamtschatica</u>	G2Q	S2
<u>Puccinellia triflora</u>	G3Q	S3 (Watch)
<u>Ranunculus orthorhynchus</u> var <u>alascensis</u>	G5T2Q	S2
<u>Rhododendron camtschaticum</u> ssp <u>camtschaticum</u>	G5T5	S5
<u>Romanzoffia unalascensis</u>	G2G3	S2S3
<u>Rorippa curvisiliqua</u>	G5	S1 (Watch)
<u>Rorippa obtusa</u>	G5	S1
<u>Rumex utahensis</u>	G5	SP (Watch)
<u>Salicornia europaea</u>	G5NE	S2
<u>Salix setchelliana</u>	G3	S2S3
<u>Salix cascadiensis</u>	G4G5	SP (Watch)
<u>Salix reticulata</u> ssp <u>glabelllicarpa</u>	G5T2	S1
<u>Salix planifolia</u> ssp <u>planifolia</u>	G5T5	S1 (Watch)
<u>Salix hookeriana</u>	G5	S2
<u>Salix prolixa</u>	G5	S1
<u>Satureja douglasii</u>	G4	S1
<u>Saussurea americana</u>	G5	S2
<u>Saxifraga taylorii</u>	G2	SP (Watch)
<u>Scirpus subterminalis</u>	G4G5	S1
<u>Scirpus rufus</u>	G5	S1
<u>Sedum lanceolatum</u>	G5	S1S2
<u>Sedum oreganum</u>	G5	S3
<u>Sedum divergens</u>	G5	S1 (Watch)
<u>Senecio moresbiensis</u>	G3	S1
<u>Sisyrinchium montanum</u>	G5	SP (Watch)
<u>Smilacina stellata</u>	G5	S2
<u>Smilacina racemosa</u>	G5	S2
<u>Spiraea douglasii</u>	G5	S2
<u>Stachys mexicana</u>	G5	S1
<u>Stellaria alaskana</u>	G2	S2 (Watch)
<u>Stellaria crassifolia</u>	G4	S4
<u>Stellaria ruscifolia</u> ssp <u>aleutica</u>	G4T2T3	S2S3
<u>Symphoricarpos albus</u> var <u>laevigatus</u>	G5T5Q	S2
<u>Taraxacum carneocoloratum</u>	G2Q	S1 (Watch)
<u>Taxus brevifolia</u>	G4	S2
<u>Thellungiella salsuginea</u>	G4	SP (Watch)
<u>Thlaspi arcticum</u>	G2G3	S2 (Watch)
<u>Thuja plicata</u>	G5	S3
<u>Townsendia hookeri</u>	G5	S1 (Watch)

Trifolium wormskjoldii
Vaccinium cespitosum var paludicola

G5 S1
G5T2 S2

Appendix

Vaccinium oxycoccos
Veronica wormskjoldii var stelleri
Vicia americana
Viola selkirkii
Viola sempervirens

Global State
Rank Rank
G5 S1
G4G5T4Q S4
G5 S2
G5? S3
G5 S1