

QH1  
595  
no. 72

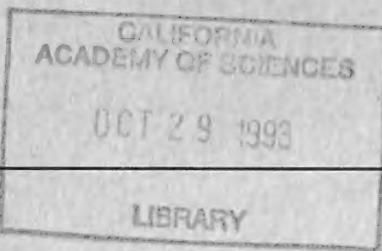
# RARE VASCULAR PLANTS IN THE CANADIAN ARCTIC

Cheryl McJannet, George Argus, Sylvia Edlund and Jacques Cayouette



Canadian  
Museum  
of Nature

Musée  
canadien  
de la nature



SYLLOGEUS  
NO. 72

**Syllogeus** is a publication of the Canadian Museum of Nature, designed to permit the rapid dissemination of information pertaining to those disciplines and educational functions for which the Canadian Museum of Nature is responsible. In the interest of making information available quickly, normal publishing procedures have been abbreviated.

Articles are published in English, in French, or in both languages, and the issues appear at irregular intervals. A complete list of the titles issued since the beginning of the series (1972) and individual copies of this number are available by mail from the Canadian Museum of Nature, Direct Mail Section, P.O. Box 3443, Station "D", Ottawa, Ontario, Canada K1P 6P4.

La collection **Syllogeus**, publiée par le Musée canadien de la nature, a pour but de diffuser rapidement le résultat des travaux dans les domaines scientifique et éducatif qui sont sous la direction du Musée canadien de la nature. Pour assurer la prompt distribution de cette publication, on a abrégé les étapes de la rédaction.

Les articles sont publiées en français, en anglais ou dans les deux langues, et ils paraissent irrégulièrement. On peut obtenir par commande postale la liste des titres de tous les articles publiés depuis le début de la collection (1972) et des copies individuelles de ce numéro, de la Section des commandes postales, Musée canadien de la nature, C.P. 3443, Succursale D, Ottawa, (Ontario) Canada K1P 6P4.

Previous titles in the Rare Plants Project / Titres précédents dans le projet des plantes rares:

Argus, George W. and/et David J. White (1977), Syllogeus 14

THE RARE VASCULAR PLANTS OF ONTARIO / LES PLANTES VASCULAIRES RARES DE L'ONTARIO

Argus, George W. and/et David J. White (1978), Syllogeus 17

THE RARE VASCULAR PLANTS OF ALBERTA / LES PLANTES VASCULAIRES RARES DE L'ALBERTA

Maher, Robert V. David J. White, George W. Argus, and/et Paul A. Keddy (1978), Syllogeus 18

THE RARE VASCULAR PLANTS OF NOVA SCOTIA / LES PLANTES VASCULAIRES RARES DE LA NOUVELLE-ÉCOSSE

Maher, Robert V. George W. Argus, Vernon L. Harms, and/et John H. Hudson (1979), Syllogeus 20

THE RARE VASCULAR PLANTS OF SASKATCHEWAN / LES PLANTES VASCULAIRES RARES DE LA SASKATCHEWAN

White, David J. and/et Karen Johnson (1980), Syllogeus 27

THE RARE VASCULAR PLANTS OF MANITOBA / LES PLANTES VASCULAIRES RARES DU MANITOBA

Argus, G.W., K.M. Pryer, D.J. White and/et C.J. Keddy (eds). 1982-1987. ATLAS OF THE RARE VASCULAR PLANTS OF ONTARIO / ATLAS DES PLANTES VASCULAIRES RARES DE L'ONTARIO. 4 Parts /4 parties. National Museum of Natural Sciences / Musée national des sciences naturelles, Ottawa.

Bouchard, André, Denis Barabé, Madeleine Dumais and/et Stuart Hay (1983), Syllogeus 48

THE RARE VASCULAR PLANTS OF QUEBEC / LES PLANTES VASCULAIRES RARES DU QUEBEC

Hinds, Harold R. (1983), Syllogeus 50

THE RARE VASCULAR PLANTS OF NEW BRUNSWICK / LES PLANTES VASCULAIRES RARES DU NOUVEAU BRUNSWICK

Straley, Gerald B., Roy L. Taylor and/et George W. Douglas (1985), Syllogeus 59

THE RARE VASCULAR PLANTS OF BRITISH COLUMBIA / LES PLANTES VASCULAIRES RARES DU COLOMBIE-BRITANNIQUE

Argus, G.W. and/et K.M. Pryer. 1990. RARE VASCULAR PLANTS IN CANADA: OUR NATURAL HERITAGE / LES PLANTES VASCULAIRES RARES DU CANADA: NOTRE PATRIMOINE NATUREL. Canadian Museum of Nature / Musée canadien de la nature, Ottawa. 191 pp.

Bouchard, André, Stuart Hay, Luc Brouillet, Martin Jean and/et Isabelle Saucier (1991), Syllogeus 65

THE RARE VASCULAR PLANTS OF THE ISLAND OF NEWFOUNDLAND / LES PLANTES VASCULAIRES RARES DE L'ILE DE TERRE-NEUVE

Day, Robin and Paul M. Catling (1991), Syllogeus 67

THE RARE VASCULAR PLANTS OF PRINCE EDWARD ISLAND

QH1  
S95  
no.72

## RARE VASCULAR PLANTS IN THE CANADIAN ARCTIC

**Cheryl L. McJannet, George W. Argus,**

Research Division  
Canadian Museum of Nature  
P.O. Box 3443, Station D  
Ottawa, Ontario, Canada  
K1P 6P4

**Sylvia A. Edlund,**

Geological Survey of Canada  
601 Booth St.  
Ottawa, Ontario, Canada K1A 0E8

**and**

**Jacques Cayouette**

Agriculture Canada  
Centre for Land and Biological  
Resources Research  
William Saunders Bldg., C.E.F.  
Ottawa, Ontario, Canada K1A 0C6

Syllogeus No. 72

1993



Canadian  
Museum  
of Nature

Musée  
canadien  
de la nature



(c) 1993 Canadian Museum of Nature

Published by the:

Canadian Museum of Nature  
Ottawa, Canada K1P 6P4

Catalogue No. NM95-20/72E

Available by mail order from:

Canadian Museum of Nature  
Direct Mail Section  
P.O. Box 3443, Station "D"  
Ottawa, Canada K1P 6P4

Syllogeus Series No. 72  
Printed in Canada  
ISBN 0-660-13071-8

Publié par le :

Musée canadien de la nature  
Ottawa, Canada K1P 6P4

Catalogue No. NM95-20/72E

L'éditeur remplit les commandes postales  
adressées au :

Musée canadien de la nature  
Section des commandes postales  
C.P. 3443, succursale D  
Ottawa, Canada K1P 6P4

Serie Syllogeus No. 72  
Imprimé au Canada  
ISBN 0-660-13071-8

No part of this publication may be reproduced in any form,  
including any storage or retrieval system, or by any means,  
electronic, mechanical, photographic, or recording, without  
permission in writing from the publisher.

Cover photograph taken by Sylvia Edlund, Eureka (Ellesmere  
Island), Northwest Territories. Several rare arctic endemics occur  
nearby, including: *Braya thorild-wulffii*, *Geum rossii*, *Puccinellia*  
*bruggemannii*, and *Puccinellia poacea*.



## **TABLE OF CONTENTS**

### **1 INTRODUCTION**

- 2 Definitions
- 2 Methods
- 4 Criteria
- 5 Format of the list
- 6 Distribution patterns of rare plants in the Canadian Arctic
- 9 Future research requirements
- 10 References

### **13 LIST OF RARE VASCULAR PLANTS IN THE CANADIAN ARCTIC**

### **73 APPENDICES**

- 73 I: Family List of Rare Vascular Plants in the Canadian Arctic
- 77 II: Phytogeographical List of Rare Vascular Plants in the Canadian Arctic

Digitized by the Internet Archive  
in 2011 with funding from  
California Academy of Sciences Library

<http://www.archive.org/details/syllogeus72nati>

## **ABSTRACT / RÉSUMÉ**

The flora of the Canadian Arctic contains 236 rare vascular plant taxa. These arctic taxa represent a unique part of Canadian biodiversity. The recognition of these taxa is an important step toward the recognition and conservation of Arctic ecosystems. The majority of these rare taxa have boreal or montane affinities and occur in the Arctic as peripheral populations. These species are important in that they can be used to identify treeline ecosystems that require conservation. There is a small, but very critical, number of species that occur only in the Canadian Arctic and as such require conservation. This list of rare species includes an introduction in which terms are defined, most important are those associated with rarity and the limits of the Canadian Arctic. As well, the criteria used to determine a taxon's rarity are described. For each taxon a comment is included on phytogeography, occurrence in the Canadian Arctic, and rare status in other parts of Canada. A distribution map showing known occurrences in the Canadian Arctic is included for each species.

La flore vasculaire rare de l'Arctique canadien est représentée par 236 taxons lesquels constituent une composante unique de la biodiversité à l'échelle canadienne. La reconnaissance de ces taxons est une étape cruciale dans la caractérisation et la conservation des écosystèmes arctiques. La majorité de ces taxons montre des affinités avec des espèces boréales ou alpines et se retrouve en secteur arctique à titre de populations périphériques. Ces espèces sont importantes puisqu'elles permettent l'identification des écosystèmes de la limite des arbres pour lesquels une conservation s'impose. Il y a un petit nombre d'espèces qui ne se retrouvent que dans l'Arctique canadien et qui méritent d'être conservées. À cette liste d'espèces rares s'ajoute une introduction où la terminologie y est définie, surtout les termes les plus importants associés à la rareté et les limites de l'Arctique canadien. Les critères utilisés pour définir la rareté d'un taxon sont également expliqués. Pour chacun des taxons, des commentaires sont formulés quant à la phytogéographie, la présence dans l'Arctique canadien, le niveau de rareté dans les autres provinces du Canada ainsi qu'une carte de la répartition montrant les présences vérifiées dans l'Arctique canadien.



## INTRODUCTION

Preserving the biodiversity of plant and animal life is of increasing concern to Canadians. Rare plants are an important aspect of Canadian biodiversity. The occurrence of rare plants often reflects unique habitats or important evolutionary situations such as refugia or centres of evolution (Argus & McNeill 1975). Rare plants also often have genetic characteristics worth preserving because of their contribution to biodiversity. The loss of rare plants and their habitats forewarn of deleterious environmental changes that may eventually have serious human consequences.

There are many places in Canada that are rich in rare plants but have little or no effective protection. If plants and habitats are to be given legislative protection, it is desirable to have well-documented lists of candidate plants to be considered for such protection. This list has been compiled to identify the rare vascular plants of the Canadian Arctic as part of the Canadian contribution to the International Circumpolar Agreement on the Conservation of Arctic Flora and Fauna.

In 1973, the Systematics and Phytogeography Section of the Canadian Botanical Association formed the Rare and Endangered Plants committee. The goal of this committee was to make an inventory of the rare and endangered vascular flora of Canada. Since 1975, as part of this effort, the Botany Division's Rare and Endangered Plants Project has been involved in compiling rare plant lists for the Canadian provinces and territories.

This work has been undertaken with the cooperation of Canadian and American botanists. Rare plant lists have been published for all of the provinces and the Yukon Territory. A list of rare vascular plants in the Northwest Territories is in preparation at the Canadian Museum of Nature (McJannet & Argus, in prep.) and the flora of Labrador is being studied by R. Day (pers. comm.). A national list of Canadian rare plants has been published recently (Argus & Pryer, 1990).

An inventory of the rare flora of the Canadian Arctic will be useful in contributing to the preservation of individual species, but, more importantly, it will aid in the recognition of habitats and ecosystems that require conservation. Some plants that were once a part of the Canadian flora have become extinct or have been extirpated during the past 75 years. As well, certain habitats that were once widespread have been so extensively modified, that the continued existence of some plant species is threatened. While it is sometimes asserted that endangered plants can be protected as individual species, often by transplantation to other sites, growing them in botanical gardens, or by cryogenic seed storage, this is rarely sufficient to ensure the long-term survival of these species. For the long-term conservation of flora it is necessary to preserve natural areas sufficiently large to protect the habitats of unique plants. Rare plants by definition are very susceptible to the effects of environmental change, which are often caused by human activities. Today many regions of the Canadian

Arctic are relatively little affected by human activities, but the landscape and flora is very sensitive to destructive human activities. A comprehensive system of ecosystem reserves is essential to ensure that the rare flora of the Canadian Arctic does not become endangered.

## DEFINITIONS

A **rare** taxon is one that has a small population within the region under consideration. The taxon may be restricted to a relatively small geographical area (but may be locally common) or it may occur sparsely over a wide area. This definition is essentially the one given by the International Union for Conservation of Nature and Natural Resources (IUCN) (Lucas & Syngle 1978), except that their definition is based on the taxon's total world population, whereas, we have based our definition on the taxon's Canadian populations. There are sound reasons for taking a national approach to conservation. First, we believe that each nation should be responsible for flora at risk within its jurisdiction irrespective of its occurrence and status elsewhere, since the required legislation is usually enacted at the national level. Second, global distributional information on arctic flora varies from country to country in quality, accessibility and taxonomic nomenclature. With our present information it is not possible to assess the status of rare Canadian Arctic flora worldwide.

A **peripheral** taxon is one that, in the region under consideration, occurs at the edge of its main range. In the Canadian Arctic, many of these are boreal taxa but others are arctic taxa that have their main

ranges outside of Canada.

An **endemic** taxon is one that has a small world population and occurs in a relatively small geographical area within the region under consideration.

A **disjunct** taxon is one separated from its main population by at least 1000 km.

The **Arctic** is that region north of the northern limit of continuous forest. In this paper the boundary of the Canadian Arctic (Figure 1) is the treeline published by Yurtsev et al. (1978) and modified in the Quebec-Labrador Peninsula by Payette (1983).

## METHODS

In the preparation of this list we first defined the Canadian Arctic (Figure 1). Second, we compared the Arctic line with distribution maps published in the *Flora of the Continental Northwest Territories* (Porsild & Cody 1980), *The Illustrated Flora of the Canadian Arctic Archipelago* (Porsild, 1964), *Géographie Floristique du Québec/Labrador: Distribution des Principales Espèces Vasculaires* (Rousseau, 1974), *Flore du Québec Nordique et des Territoires Adjacents* (Lavoie & Morisset, unpublished), and *The Flora of Alaska and Neighboring Territories* (Hultén 1968). By overlaying the "Arctic line" on these maps we obtained about 400 candidate taxa. From these candidates we selected 236 taxa that occurred in very few localities (often only one or two), or those concentrated in a relatively small part of the Canadian Arctic. In addition, consideration was given to previous publications on Canadian rare plants, including: the Canada list

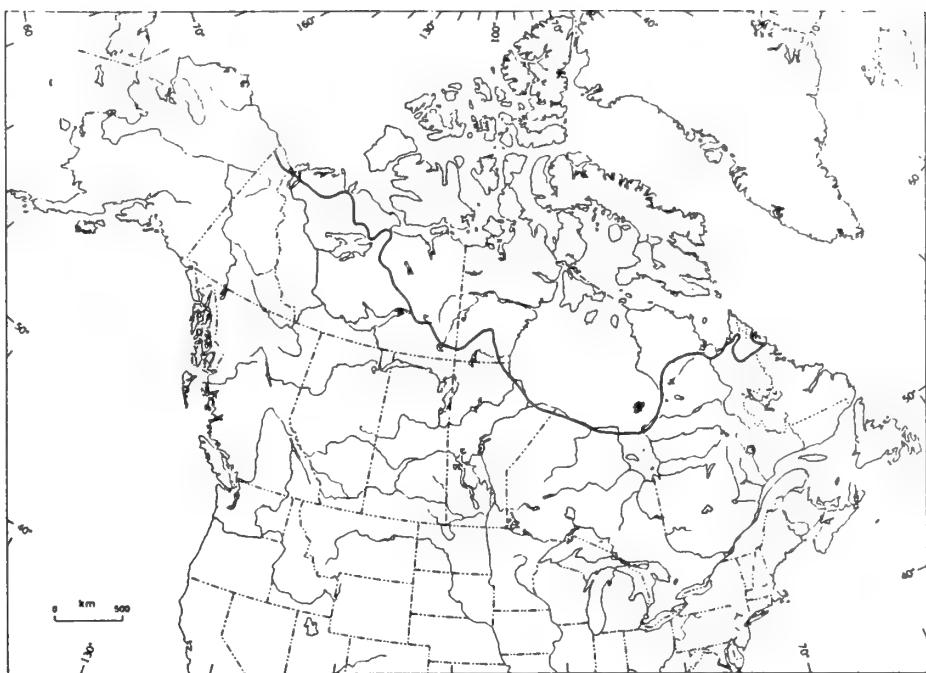


Figure 1. Delimitation of the Canadian Arctic approximating the northern limit of continuous forest (after Yurtsev et al. 1978, Payette 1983).

(Argus & Pryer 1990), Yukon (Douglas, et al. 1981), Northwest Territories (Cody 1979, McJannet & Argus, in prep.), Manitoba (White & Johnson 1980), Ontario (Argus et al. 1982-1987), and Quebec (Bouchard et al. 1983, Lavoie 1992), and to taxonomic monographs (Crow 1978, Gillett 1963) and papers (Blondeau 1986, 1989, Blondeau & Cayouette 1987, Dutilly et al. 1958, Fleurbec 1985, Hultén & Fries 1986, Johnson 1987, Lepage 1966, Little 1971, Raup 1943, Riley & McKay 1980, Sabourin et al. 1991, Soper & Heimburger 1985). The rarity of habitat and the total range of the taxon were also taken into consideration as was the field experience of the junior authors.

The distribution maps were partially updated by an examination of herbarium specimens (CAN, DAO) for the rare taxa of the Northwest Territories. This was done in connection with research on the rare

vascular plants in the Northwest Territories (McJannet & Argus, in prep.). The flora of northern Quebec and Labrador was studied in connection with an, as yet, unpublished flora (Lavoie & Morisset).

Deciding if a species is rare from published maps is not a completely reliable method. Maps often contain large gaps in distribution, resulting from incomplete mapping, or from undercollecting. The data on which published maps are based soon become obsolete as new collections are made. Furthermore, it is well known that distribution maps are more indicative of where collectors have been rather than the total range of the species. Also, common species collected infrequently may appear rare, whereas, some populations of rare plants have been collected so frequently that they appear common. As well, the delimitation of the Arctic needs refinement at a reasonable geographical scale in order

for sound decisions about distribution to be made. Understanding these limitations, we selected 236 taxa that seem to be quite rare in the Canadian Arctic. The list, however, should be regarded as provisional until herbarium specimens can be verified and mapped and further botanizing done to fill in apparent gaps.

## CRITERIA

Taxa included in this list are **native** and **rare** in the Canadian Arctic, however, they need not be restricted to this geographic area. Taxonomic ranks of species, subspecies, and varieties are included, but forms and hybrids are not. The list consists only of rare taxa because we do not yet have sufficient data to evaluate the threatened or endangered status of the flora of the Canadian Arctic. All rare taxa, however, maybe regarded as potentially vulnerable to human activities.

Commonly, the species on this list occur in very few localities or are restricted to a very small part of the Canadian Arctic. Under certain conditions taxa were allowed a larger range than our criteria specified. For example, taxa (1) restricted to specialized habitats within the Canadian Arctic, e.g., *Geum rossii*; (2) relatively narrowly endemic to the Canadian Arctic, e.g., *Braya thorild-wulffii* and *Puccinellia bruggemannii*; (3) with very small ranges outside the Canadian Arctic, e.g., *Artemisia furcata* var. *furcata* and *Phlox richardsonii* ssp. *richardsonii*; or (4) significantly disjunct in the Canadian Arctic, e.g., *Carex rufina*.

Some plants on this list may appear rare because they are undercollected, but may be

more common. For example, some aquatic species, such as *Potamogeton friesii*, are often infrequently collected because they are difficult to collect. Other aquatics, such as, *Subularia aquatica* ssp. *americana* and *Limosella aquatica*, are inconspicuous and easily overlooked. Some species of grasses, for example, *Puccinellia* ssp., are taxonomically obscure and difficult to identify in the field and therefore undercollected. As well, some taxa may not flower every year and therefore are not collected because they are unidentifiable without flowers or fruits. Further field study of rare arctic plants is certain to demonstrate that some taxa listed here as rare are more common than we now believe.

Peripheral taxa, namely, taxa whose main range lies outside the Canadian Arctic, were included on our list if they were rare in the Canadian Arctic. Examples of such taxa include: (1) boreal forest species that extend into the northern and northwestern corner of the Yukon and Northwest Territories and into northern Manitoba, Ontario, Quebec and Labrador, e.g., *Calla palustris* and *Ranunculus sceleratus* var. *multifidus*, and (2) arctic-alpine taxa that have their major range in the cordillera and just extend into the Arctic, e.g., *Carex macloviana* ssp. *macloviana* and *Poa leptocoma* var. *paucispicula*. It may be argued that peripheral species should not be included on rare plant lists, since these species are simply artifacts of the relationship between subjective and natural boundaries. But peripheral species, because of their potentially unique genetic characteristics, are an important part of the biological diversity of the Arctic and must be considered in any conservation program.

## FORMAT OF THE LIST

Taxa are listed alphabetically. For each taxon the following information may be given:

**1. Scientific name and authority.** The nomenclature follows, as much as possible, a computerized database of the 1985 draft revision of Kartesz & Kartesz (1980) *A Synonymized Checklist of the Vascular Flora of the United States, Canada, and Greenland*. In other cases, the nomenclature follows the *Flora of North America*, Volume 2 (in press), or taxonomic monographs.

**2. Synonymy.** Synonyms are included in parentheses following the accepted name only if they are necessary to locate the taxon in our original sources. These synonyms are cross referenced in the main list.

### 3. Family Name.

**4. Phytogeography.** This section indicates the main phytogeographic region or habitat in which the taxon occurs. The categories used are: arctic, arctic-alpine, boreal, montane, coastal, and aquatic. These units have been interpreted rather broadly.

**5. Canadian Arctic.** The taxon's occurrence in the three major ecosystems in Canadian Arctic is given in terms of Low, Mid, and High Arctic (Figure 2). These zones are used as mapped by Edlund (1984). The division between the eastern and western portions of the Low and Mid Arctic is the 100th meridian, as indicated by a lower case "e" or "w", respectively.

**6. Rare Status.** This section includes information on the rare status of the taxon in other parts of Canada. The rare occurrence of taxa in the provinces and territories, or throughout Canada as a whole, is documented in the following: Canada (Argus & Pryer 1990), Alberta (Packer & Bradley 1984), British Columbia (Straley et al. 1985), Manitoba (White & Johnson 1980), New Brunswick (Hinds 1986), Newfoundland (Bouchard et al. 1991), Northwest Territories (McJannet & Argus, in prep.), Nova Scotia (Maher et al. 1978), Ontario (Argus et al. 1982-1987), Prince Edward Island (Day & Catling 1991), Quebec (Bouchard et al. 1983, and Lavoie 1992), Saskatchewan (Harms et al. 1992), and Yukon Territory (Douglas et al. 1981). The rarity of a taxon in other parts of Canada is an indication of the significance of its rarity in the Canadian Arctic.

**7. Comment.** This section comments on whether a species is an endemic, a possible hybrid, or a disjunct. The habitat of a species may be mentioned when that is the reason for its rarity.

**8. Distribution Maps.** The maps show the range of each taxon within the Canadian Arctic. The hatched line represents the Arctic line. Most species have ranges outside of the Arctic, however, we have mapped occurrences of these taxa only in the Canadian Arctic. Reference to the sections on Phytogeography and Comments will identify those taxa restricted to the Canadian Arctic.

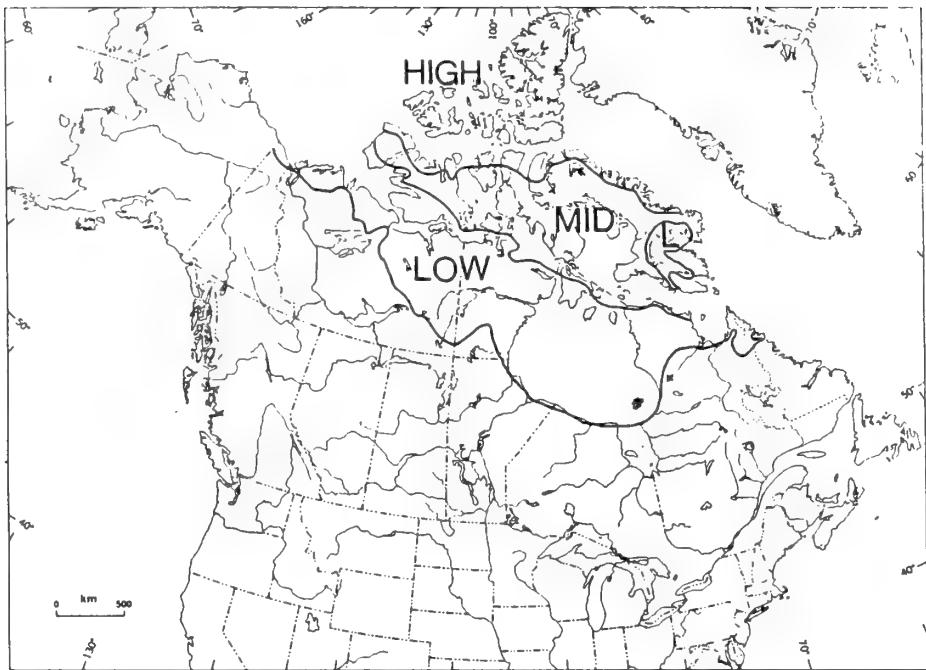


Figure 2. Major ecosystems in the Canadian Arctic (after Edlund 1984). The separation between the eastern and western Low and Mid Arctic is the 102nd meridian

## Appendices

Two appendices follow the main lists. Appendix I is a list of the rare vascular plants in the Canadian Arctic arranged alphabetically by family. Appendix II is a list of the rare vascular plants in the Canadian Arctic arranged phyto-geographically (i.e. arctic, arctic-alpine, boreal, montane, coastal, and aquatic).

## DISTRIBUTION PATTERNS OF RARE PLANTS IN THE CANADIAN ARCTIC

The distribution patterns of the 236 rare plant taxa in the Canadian Arctic can be considered in terms of their occurrence in (1) phytogeographic zones, (2) geographical regions, (3) political jurisdictions, and (4) their national significance, either as endemics or as being rare throughout all of Canada.

**Phytogeographic Zones.** Of the 236 rare plant taxa that we have recognized in the Canadian Arctic, 29 occur mainly in the Arctic. Of these, only eight taxa occur in the High Arctic, two of which are restricted to that region; the others also occur in the Low Arctic and/or the Mid Arctic. There are 77 taxa that we have defined as arctic-alpine, many of which have ranges extending southward in the North American cordillera. The most common phytogeographic affinity among the arctic rarities is boreal or montane, with 100 taxa occurring in these categories. These are largely peripheral taxa that, although rare in the Arctic, are usually common southward. Finally, we have recognized 14 taxa as not clearly belonging to any one phytogeographic zone but occurring, sometimes rather widely, in coastal and aquatic ecosystems.

**Geographic Regions.** Seven of the 236 taxa were entirely restricted to the Arctic Archipelago. An additional 16 taxa occur in the southern part of the Archipelago and on the adjacent mainland. The majority of taxa (89), however, occur in the extreme northwestern Canadian Arctic (northern Yukon and adjacent Northwest Territories). In the eastern Canadian Arctic, 56 taxa are located along the shores of Hudson Bay, some extending into northern Quebec and Labrador. There are also 47 taxa that range widely along the treeline.

The majority of Canadian rare arctic taxa occur in northern Yukon and in the Northwest Territories in the vicinity of the Mackenzie River delta and the Richardson Mountains. The rare plants of this region are a rich melange of arctic, arctic-alpine, boreal, and coastal taxa. Many of these taxa have beringian connections and have reached the Canadian Arctic via Siberia and northern Alaska or evolved in the far northwestern refugia. The arctic species *Artemisia glomerata*, the arctic-alpine species *Anemone drummondii*, and *Geum glaciale*, the boreal species *Valeriana capitata*, and the coastal species *Primula borealis* are examples of taxa with beringian affinities. There are also a number of widespread boreal taxa that reach their northern limits in this region, e.g., *Populus tremuloides*, *Calla palustris*, and *Arctostaphylos uva-ursi*.

Generally, boreal taxa in the Arctic occur at or just north of the treeline. There are concentrations of rare boreal taxa in both northwestern Canada and along the shores of Hudson Bay from the Northwest Territories to northern Quebec and Labrador. In the central Canadian Arctic

there appears to be few rare taxa of any kind but that may be a collecting artifact.

**Political Jurisdictions.** Many taxa that are rare throughout the Canadian Arctic also appear on provincial and territorial lists of rare plants. A review of published lists of rare plants (see Methods for references) reveals the following statistics for the number of rare arctic taxa: Northwest Territories (53), Yukon Territory (51), Newfoundland (island) (30), British Columbia (25), Saskatchewan (25), Manitoba (21), Ontario (16), Alberta (13), Quebec (12), Nova Scotia (11), Prince Edward Island (10), and New Brunswick (8). Information on rarity in Labrador is not yet available. Most of the rare arctic taxa occur in the two northern territories; but a surprisingly large number are rare in provinces outside of the Arctic. Many of these taxa are boreal and are rare along both their northern and southern limits; others are wideranging coastal or aquatic taxa. To protect the genetic resources represented by these taxa, it will be necessary to protect ecosystems along both the northern and southern limits of their ranges.

**Nationally Significant Taxa.** There are 18 taxa that are narrowly endemic to the Canadian Arctic (Table 1) and 37 taxa that are rare throughout their entire range in Canada (Table 2). These nationally significant taxa deserve special attention to ensure their continued existence in the Arctic.

The glacial history of far northwestern and northern Canada may offer some explanations for these endemics and some

of the more widespread rarities. During the Wisconsinan glaciation, there were major coastal shelves exposed in the Queen Elizabeth Islands and in Beringia (Fulton 1989). The saline and alkalai tolerant arctic endemic species (*Braya thorild-wulffii*, *Puccinellia bruggemannii*, *P. deschampsiooides*, *P. poaceae*, *Linum lewisii* ssp. *lepagei*, and *Salicornia borealis*) currently found on raised marine deposits, weathered limestone and dolomite outcrops, or areas of sulfate crusts, may represent remnants from larger populations that occurred on the coastal shelves. High mountain plateaus were also ice free in the Yukon and central Alaska throughout the Pleistocene. Such refugia may have led to isolation and to endemism.

**Protection.** The protection of ecosystems occupied by Canada's rare arctic flora seems, for the foreseeable future, to be the purview of our national and provincial parks systems. At the present time the national and provincial parks in the Arctic seem to include the ranges of many rare arctic taxa. In the northern Yukon, Ivvaik National Park contains many rare arctic-alpine taxa and the two national parks in the Arctic Archipelago, Ellesmere Island National Park and Auyuituq National Park, include a number of rare taxa that occur in that region (Finkelstein 1990). Plans for national parks on Banks Island (Aulavik National Park) and on north Baffin Island are well advanced (Halfyard 1993).

Many rare taxa found on the Hudson Bay coast in northern Ontario appear to occur within Polar Bear Provincial Park. At present there are no parks along the treeline; but several have been proposed. National parks are planned for a number of

areas along the treeline, including the Torngat Mountains, Labrador; Richmond Gulf, Quebec; Churchill, Manitoba; and Thelon River, East Arm of Great Slave Lake, and Bluenose Lake, Northwest Territories (Finkelstein 1990).

These and other proposed parks in the Arctic Archipelago, including Banks Island, central Bathurst Inlet and Bylot Island, Northwest Territories, will do much to set a firm basis for conservation in the Canadian Arctic.

It is important to remember that because of the size of the Canadian Arctic and difficulty of access, our knowledge of the

---

**Table 1**  
**Narrow Endemics occurring in**  
**Arctic Canada**

<i>Artemisia arctica</i> ssp. <i>comata</i>
<i>Braya glabella</i>
<i>Braya thorild-wulffii</i>
<i>Castilleja yukonis</i>
<i>Douglasia arctica</i>
<i>Erigeron muirii</i>
<i>Erigeron yukonensis</i>
<i>Gentianopsis detonsa</i> ssp. <i>raupii</i>
<i>Linum lewisii</i> ssp. <i>lepagei</i>
<i>Mertensia drummondii</i>
<i>Phlox richardsonii</i> ssp. <i>richardsonii</i>
<i>Puccinellia bruggemannii</i>
<i>Puccinellia deschampsiooides</i>
<i>Puccinellia poacea</i>
<i>Salicornia borealis</i>
<i>Salix ovalifolia</i> var. <i>arctolitoralis</i>
<i>Smelowskia calycina</i> var. <i>media</i>
<i>Thlaspi arcticum</i>

---

---

**Table 2**  
**Canadian Arctic Rarities**  
**rare throughout Canada**

<i>Anemone multiceps</i>
<i>Antennaria friesiana</i> ssp. <i>alaskana</i>
<i>Artemisia arctica</i> ssp. <i>comata</i>
<i>Artemisia globularia</i>
<i>Artemisia glomerata</i>
<i>Betula nana</i> ssp. <i>nana</i>
<i>Botrychium ascendens</i>
<i>Braya pilosa</i>
<i>Braya thorild-wulffii</i>
<i>Carex adelostoma</i>
<i>Carex laxa</i>
<i>Carex rufina</i>
<i>Deschampsia cespitosa</i> ssp. <i>alpina</i>
<i>Dianthus repens</i>
<i>Dryas integrifolia</i> ssp. <i>chamissonis</i>
<i>Erigeron hyperboreus</i>
<i>Erigeron muirii</i>
<i>Festuca lenensis</i>
<i>Gentiana nivalis</i>
<i>Gentianopsis detonsa</i> ssp. <i>detonsa</i>
<i>Koeleria asiatica</i>
<i>Linum lewisi</i> ssp. <i>lepagei</i>
<i>Mertensia drummondii</i>
<i>Platanthera albida</i> var. <i>straminea</i>
<i>Polygonum caurianum</i> ssp. <i>caurianum</i>
<i>Puccinellia bruggemannii</i>
<i>Puccinellia deschampsioides</i>
<i>Puccinellia poacea</i>
<i>Ranunculus turneri</i>
<i>Salicornia borealis</i>
<i>Salix ovalifolia</i> var. <i>arctolitoralis</i>
<i>Salix ovalifolia</i> var. <i>ovalifolia</i>
<i>Saxifraga eschscholtzii</i>
<i>Saxifraga stellaris</i>
<i>Smelowskia calycina</i> var. <i>media</i>
<i>Thlaspi arcticum</i>
<i>Trisetum sibiricum</i> ssp. <i>litorale</i>

phytogeography of this region is very incomplete. As further field work is done some species now thought to be rare may prove to be more common than we thought and, undoubtedly, other rare taxa will be discovered. The challenge is to protect sufficiently large, representative ecosystems so that the consequences of this lack of information will be minimized.

#### **FUTURE RESEARCH REQUIREMENTS**

1. The flora of the Canadian Arctic urgently requires taxonomic and phyto-geographical study.

a. The known distribution of the flora, based on herbarium specimens, needs to be updated and expanded. Canadian Arctic specimens in Canadian herbaria, and in critical herbaria in other countries, should be verified and mapped. Specimen label data should be computerized and coordinates determined so that localities can be plotted on large scale maps.

b. Field study is needed to fill collecting gaps and to relocate rare taxa known only from one or two localities. Voucher collections of such rarities should be made only when they are not a threat to the populations.

2. The Arctic boundary needs to be more precisely defined and mapped.

3. Areas of the Canadian Arctic in which rare taxa are concentrated should be recognized and correlated with protected areas and other land uses.

4. In order to permit the circumpolar comparison of rare flora, the Panarctic Flora initiative should be adequately supported. This flora, by rationalizing taxonomic nomenclature on a circumpolar basis and by computerizing specimen label data, will allow the assessment of rarity on a world-wide basis, as well as the direct comparison of circumpolar floras.

## ACKNOWLEDGEMENTS

We thank Dr. Bill Cody, Agriculture Canada, for reviewing an early draft of the manuscript and Dr. David Murray, University of Alaska, for reviewing an early draft of the manuscript and for providing information and stimulating discussion.

## REFERENCES

- Argus, G.W., and J. McNeill. 1975. The conservation of evolutionary centres in Canada. Pp. 130-141, in J.S. Maini & J. Carlyle. Conservation in Canada - A conspectus. Environment Canada, Publ. 1340, Ottawa.
- Argus, G.W., and K.M. Pryer. 1990. Rare Vascular Plants in Canada: Our Natural Heritage. Canadian Museum of Nature, Ottawa. 191 pp.
- Argus, G.W., K.M. Pryer, D.J. White, and C.J. Keddy (eds). 1982-1987. Atlas of the Rare Vascular Plants of Ontario. 4 Parts. National Museum of Natural Sciences, Ottawa. Looseleaf
- Blondeau, M. 1986. La flore vasculaire d'Inukjuak, Nouveau-Québec. Provancheria No. 19. Université Laval. 68 pp.
- Blondeau, M. 1989. La flore vasculaire des environs d'Akulivik, Nouveau-Québec. Provancheria No. 23. Université Laval 80 pp.
- Blondeau, M. and J. Cayouette. 1987. Extensions d'aire dans la flore vasculaire du Nouveau-Québec. Naturaliste can. (Rev. Écol. Syst.), 114: 117-126.
- Bouchard, A., D. Barabé, M. Dumais, and S. Hay. 1983. The Rare Vascular Plants of Quebec. Syllogeus 48. 75 pp.
- Bouchard, A., S. Hay, L. Brouillet, M. Jean, and I. Saucier. 1991. The Rare Vascular Plants of the Island of Newfoundland. Syllogeus 65. 165 pp.
- Cody, W.J. 1979. Vascular Plants of Restricted Range in the Continental Northwest Territories. Syllogeus 23. 57 pp.
- Crow, G.E. 1978. A Taxonomic revision of *Sagina* (Caryophyllaceae) in North America. Rhodora. 80: 1-91.
- Day, R., and P.M. Catling. 1991. The Rare Vascular Plants of Prince Edward Island. Syllogeus 67. 65 pp.
- Douglas, G.W., G.W. Argus, H.L. Dickson, and D.F. Brunton. 1981. The Rare Vascular Plants of the Yukon. Syllogeus 28. 61 pp.
- Dutilly, A., E. Lepage, and M. Duman. 1958. Contribution à la flore des îles (T.N.O.) et du versant oriental (Québec) de la Baie James. No. 9 F. The Catholic University of America Press. Washington, D.C. 199 pp.

- Edlund, S.A. 1984. High Arctic plants: new limits emerge. *GEOS* 13: 11-13.
- Finkelstein, M. 1990. National Parks System Plan. Environment Canada, Ottawa. 110 pp.
- Fleurbec (auteur et éditeur), 1985. Plantes sauvages du bord de la mer. Guide d'identification Fleurbec. Saint-Augustin, Québec. 286 pp.
- Fulton, R.J. (ed.) 1989. Quaternary Geology of Canada and Greenland. Geological Survey of Canada, Geology of Canada, No. 1. 839 pp.
- Gillett, J.M. 1963. The Gentians of Canada Alaska and Greenland. Publication 1180. Research Branch - Canadian Department of Agriculture. 99 pp.
- Halfyard, B. ed. 1993. Canadian Council on Ecological Areas Newsletter. 8: 15.
- Harms, V.L., P.A. Ryan, and J.A. Haraldson. 1992. The Rare and Endangered Native Vascular Plants of Saskatchewan. The W.P. Fraser Herbarium, Department of Crop Science and Plant Ecology, University of Saskatchewan, Saskatoon. Looseleaf.
- Hinds, H. 1983. The Rare Vascular Plants of New Brunswick. *Syllogeus* 50. 38 pp.
- Hultén, E. 1968. Flora of Alaska and Neighboring Territories: A Manual of the Vascular Plants. Stanford University Press, Stanford, California, 1008 pp.
- Hultén, E and M. Fries. 1986. Atlas of North European Vascular Plants North of the Tropic of Cancer. I-III. Koeltz Scientific Books, Königstein, I - 498 pp., II - 469 pp., III - 203 pp.
- Johnson, K.L. 1987. Wildflowers of Churchill and the Hudson Bay Region. Manitoba Museum of Man and Nature, Winnipeg, Canada, 400 pp.
- Kartesz, J.T. and R. Kartesz. 1980. A Synonymized Checklist of the Vascular Flora of the United States, Canada, and Greenland. University of North Carolina Press, Chapel Hill. 498 pp.
- Lavoie, G. 1992. Plantes vasculaires susceptibles d'être désignées menacées ou vulnérables au Québec. Ministère de l'environnement. Direction de la conservation et du patrimoine écologique. Division de la diversité biologique. Envirodoq EN910479. 180 pp.
- Lavoie, G. and P. Morisset. Flore du Québec nordique et des Territoires adjacents. Centre d'études nordiques et Herbier Louis-Marie. Université Laval, Québec. Unpublished.
- Lepage, E., 1966. Aperçu floristique du secteur nord-est de l'Ontario. *Naturaliste Can.*, 93: 207-246.
- Little, E.L., Jr. 1971. Atlas of United States trees. Volume 1. Conifers and important hardwoods. Forest Service, United States Department of Agriculture. Miscellaneous Publication 1146. s.p.

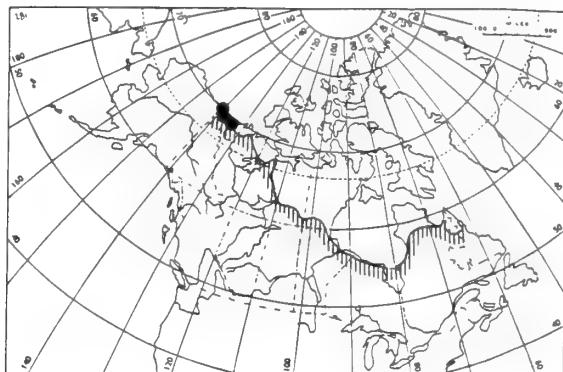
- Lucas, G. and H. Synge. 1978. The IUCN Plant Red Data Book. IUCN, Morges, Switzerland. 540 pp.
- Maher, R.V., D.J. White, G.W. Argus, and P.A. Keddy. 1978. The Rare Vascular Plants of Nova Scotia. *Syllogeus* 18. 37 pp.
- McJannet, C.L., and G.W. Argus. The Rare Vascular Plants of the Northwest Territories. In preparation.
- Packer, J.G., and C.E. Bradley. 1984. A Checklist of the Rare Vascular Plants in Alberta. Provincial Museum of Alberta, Natural History Occasional Paper 5. 112 pp.
- Payette, S. 1983. The forest tundra and present tree-lines of the northern Quebec- Labrador Peninsula. *Nordicana*, 47:3-23.
- Porsild, A.E. 1964. Illustrated Flora of the Canadian Arctic Archipelago. 2nd edition revised. National Museum of Canada. Bulletin 146, 218 pp.
- Porsild, A.E., and W.J. Cody. 1980. Vascular Plants of Continental Northwest Territories, Canada. National Museum of Natural Sciences, Ottawa. 667 pp.
- Raup, H.M. 1943. The Willows of the Hudson Bay region and the Labrador Peninsula. *Sargentia* IV. 127 pp.
- Riley, J.L. and S.M. McKay. 1980. The Vegetation and Phytogeography of Coastal Southwestern James Bay. Life Sciences Contributions, No 124. Royal Ontario Museum. Toronto, 81 pp.
- Rousseau, C. 1974. Géographie floristique du Québec-Labrador: Distribution des principales espèces vasculaires. Les Presses de L'Université Laval, Québec. 799 pp.
- Sabourin A., M. Bertrand, P. Auger, M. Bonkowski, and D. Paquette. 1991. Guide des crucifères sauvages de l'est du Canada. Montréal, Québec. 249 pp.
- Soper, J.H., and M.L. Heimburger. 1985. Shrubs of Ontario. 2nd edition. A Life Sciences Miscellaneous Publication, Royal Ontario Museum, Toronto, 495 pp.
- Straley, G.B., R.L. Taylor, and G.W. Douglas. 1985. The Rare Vascular Plants of British Columbia. *Syllogeus* 59. 165 pp.
- White, D.J., and K.L. Johnson. 1980. The Rare Vascular of Plants of Manitoba. *Syllogeus* 27. 52 pp.
- Yurtsev, B.A., A.I. Tolmatchev, and O.V. Rebristaya. 1978. The floristic delimitation and subdivisions of the Arctic. Pp. 9-104, in B.A. Yurtsev. The Arctic Floristic Region. NAUKA, Leningrad.

## LIST OF RARE VASCULAR PLANTS IN THE CANADIAN ARCTIC

### ***Aconitum delphinifolium* DC. ssp. *delphinifolium***

RANUNCULACEAE

Phytogeography: Arctic-alpine  
Canadian Arctic: wLow Arctic

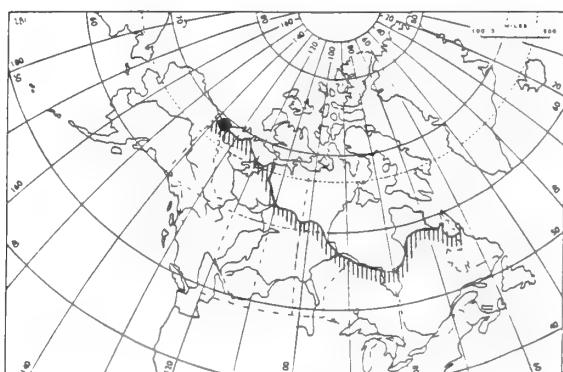


***Aconitum delphinifolium delphinifolium***

### ***Aconitum delphinifolium* DC. ssp. *paradoxum* (Rchb.) Hultén**

RANUNCULACEAE

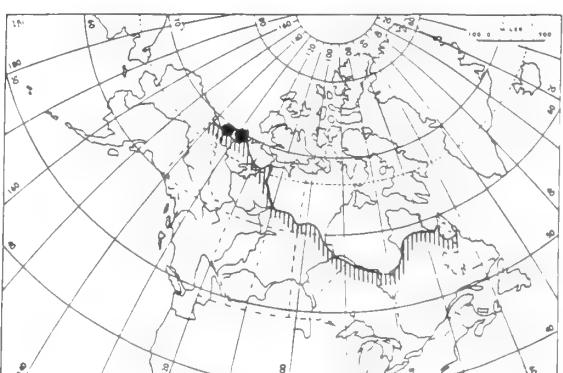
Phytogeography: Arctic  
Canadian Arctic: wLow Arctic



***Aconitum delphinifolium paradoxum***

### ***Agoseris glauca* ssp. *scorzonerifolia* = *Agoseris glauca* var. *dasycephala***

*Agoseris glauca* (Pursh) Raf. var.  
*dasycephala* (Torr. & Gray) Jepson  
(*Agoseris glauca* ssp. *scorzonerifolia*  
(Schrad.) Piper)  
ASTERACEAE  
Phytogeography: Boreal  
Canadian Arctic: wLow Arctic  
Comment: Disjunct



***Agoseris glauca dasycephala***

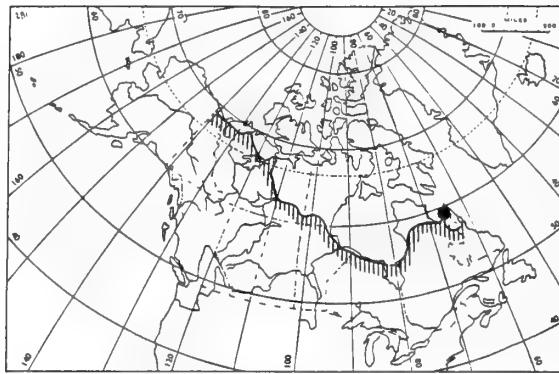
***Agropyron trachycaulum* = *Elymus trachycaulus***

***Alchemilla glomerulans* Buser**

ROSACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: eLow Arctic



***Alchemilla glomerulans***

***Allium schoenoprasum* L. var. *sibiricum***

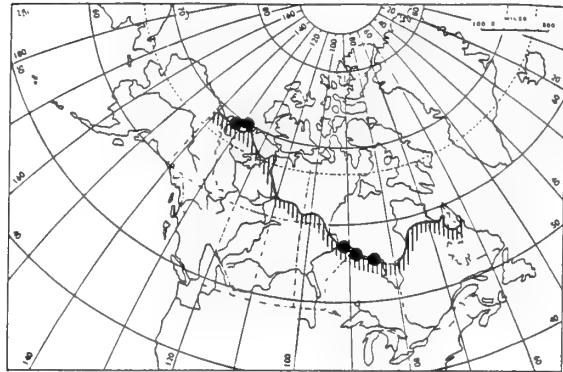
(L.) Hartman

LILIACEAE

Phytogeography: Boreal

Canadian Arctic: Low Arctic

Status: Rare in Newfoundland.



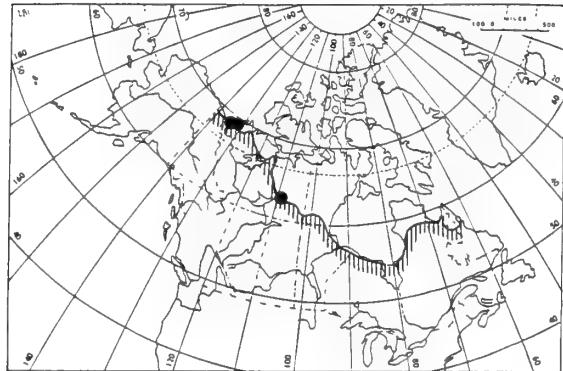
***Allium schoenoprasum sibiricum***

***Alnus incana* (L.) Moench**

BETULACEAE

Phytogeography: Boreal

Canadian Arctic: wLow Arctic



***Alnus incana***

***Amerorchis rotundifolia* (Banks ex**

Pursh) Hultén

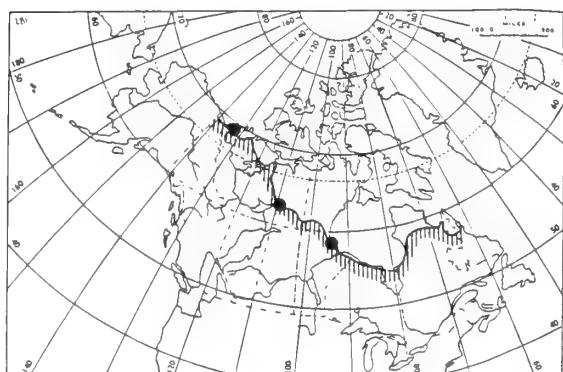
(*Orchis rotundifolia* Banks ex Pursh)

ORCHIDACEAE

Phytogeography: Boreal

Canadian Arctic: Low Arctic

Status: Rare in Newfoundland and New Brunswick.



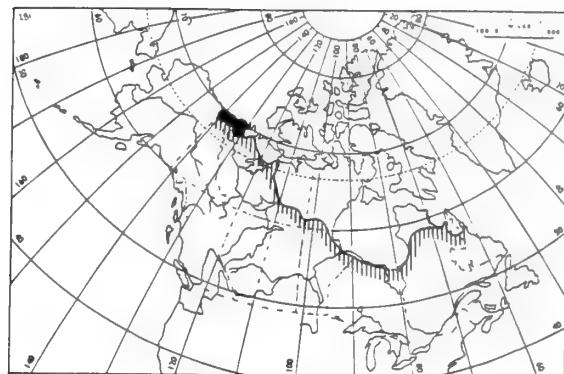
***Amerorchis rotundifolia***

**Anemone drummondii** S. Wats.

RANUNCULACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: wLow Arctic



**Anemone drummondii**

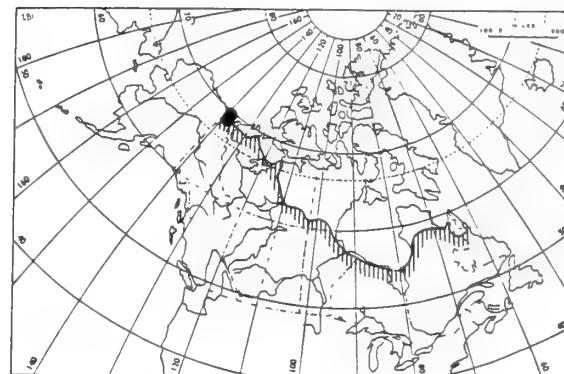
**Anemone multiceps** (Greene) Standl.

RANUNCULACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: wLow Arctic

Status: Rare in the Yukon Territory and Canada.



**Anemone multiceps**

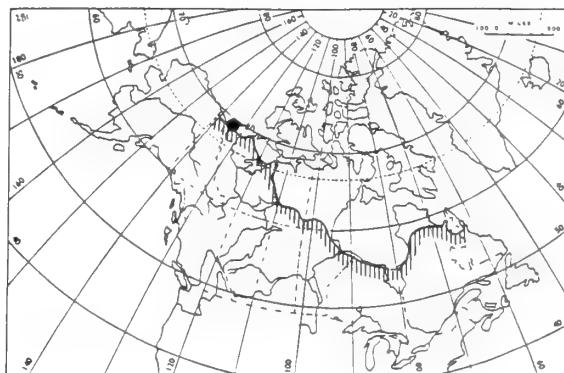
**Anemone narcissiflora** L. ssp. *interior*

Hultén

RANUNCULACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: wLow Arctic



**Anemone narcissiflora** *interior*

**Antennaria friesiana** (Trautv.) Ekman

ssp. *alaskana* (Malte) Hultén

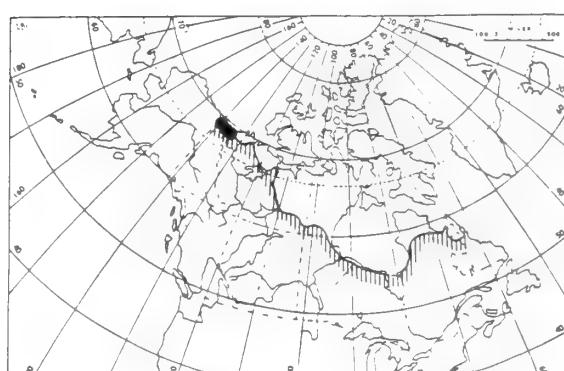
(*Antennaria neoalaskana* Porsild)

ASTERACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: wLow Arctic

Status: Rare in the Yukon Territory, the Northwest Territories, and Canada.



**Antennaria friesiana** *alaskana*

***Antennaria microphylla* Rydb.**

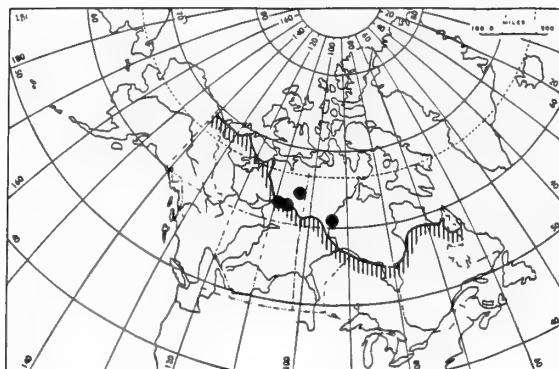
(*Antennaria nitida* Greene)

ASTERACEAE

Phytogeography: Boreal

Canadian Arctic: Low Arctic

Status: Rare in Ontario.



***Antennaria microphylla***

***Antennaria neoalaskana* = *Antennaria friesiana* ssp. *alaskana***

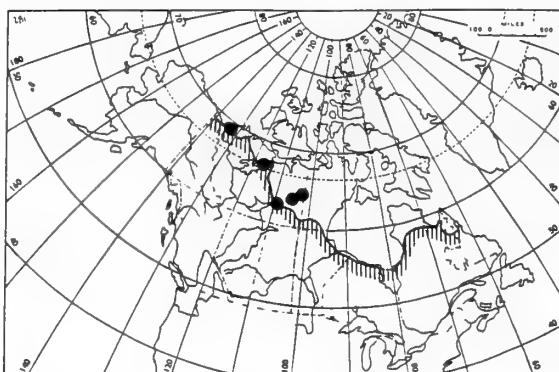
***Antennaria nitida* = *Antennaria microphylla***

***Aquilegia brevistyla* Hook.**

RANUNCULACEAE

Phytogeography: Boreal

Canadian Arctic: wLow Arctic



***Aquilegia brevistyla***

***Arabidopsis salsuginea* (Pallas) N. Busch**

(*Thellungiella salsuginea* (Pallas) O.E. Schulz)

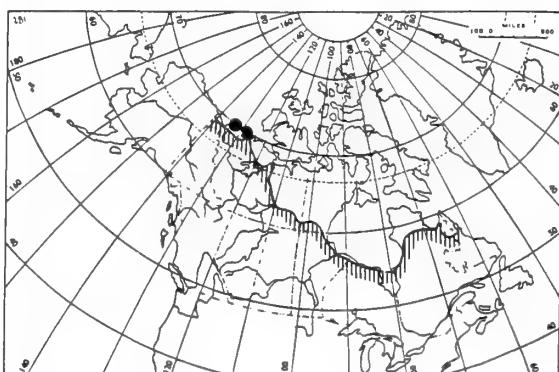
BRASSICACEAE

Phytogeography: Coastal

Canadian Arctic: wLow Arctic

Status: Rare in the Yukon Territory, the Northwest Territories, Alberta, and British Columbia.

Comment: Disjunct



***Arabidopsis salsuginea***

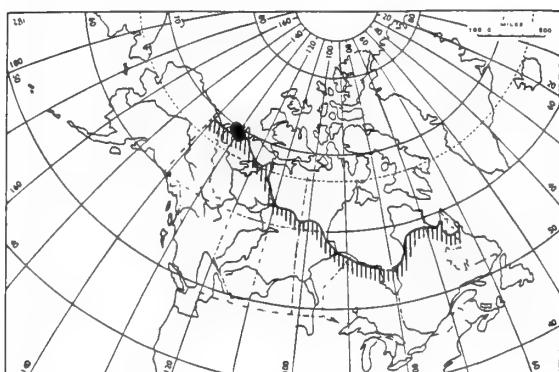
***Arctagrostis arundinacea* (Trin.) Beal**

POACEAE

Phytogeography: Boreal

Canadian Arctic: wLow Arctic

Status: Rare in Alberta.



***Arctagrostis arundinacea***

**Arctostaphylos uva-ursi** (L.) Spreng.  
(*Arctostaphylos uva-ursi* var. *coactilis*  
Fern. & Macbr.)

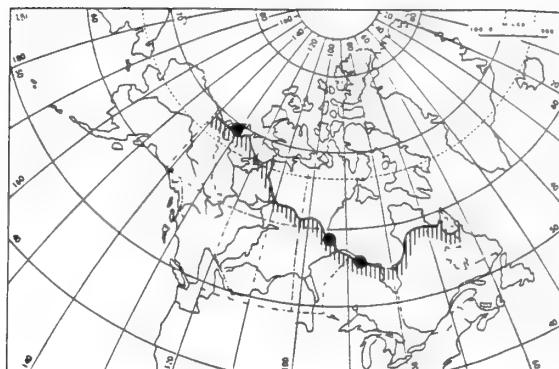
ERICACEAE

Phytogeography: Boreal

Canadian Arctic: Low Arctic

Status: Rare in Prince Edward Island.

**Arctostaphylos uva-ursi** var. **coactilis** =  
**Arctostaphylos uva-ursi**



**Arctostaphylos uva-ursi**

**Arnica alpina** ssp. **tomentosa** = **Arnica angustifolia** ssp. **tomentosa**

**Arnica angustifolia** Vahl ssp. **tomentosa**  
(Macoun) G.W. & G.R. Douglas

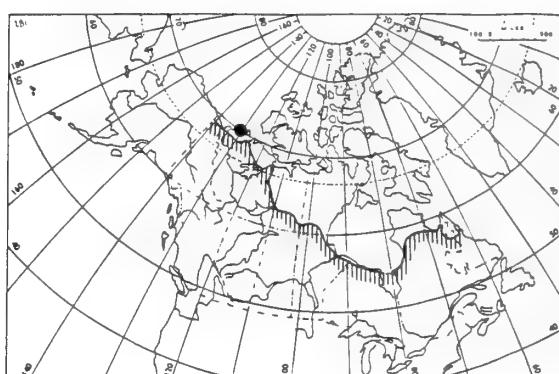
(*Arnica alpina* ssp. *tomentosa* (Macoun)  
Maguire)

ASTERACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: wLow Arctic

Status: Rare in the Yukon Territory and  
Newfoundland.



**Arnica angustifolia tomentosa**

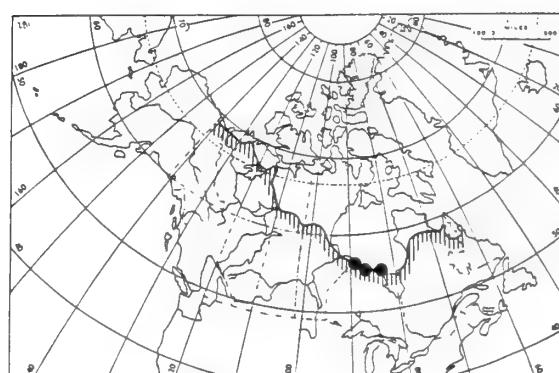
**Arnica chamissonis** Less. ssp. **foliosa**  
(Nutt.) Maguire

ASTERACEAE

Phytogeography: Boreal

Canadian Arctic: eLow Arctic

Status: Rare in Quebec.

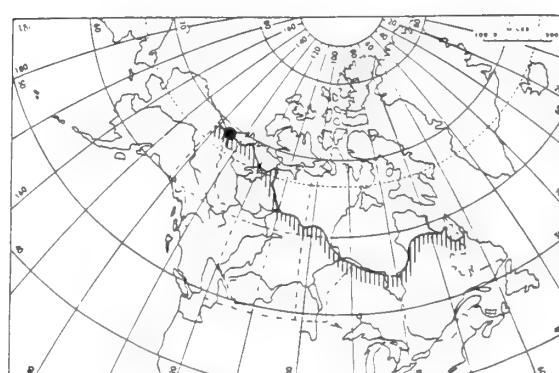


**Arnica chamissonis foliosa**

**Arnica lessingii** (Torr. & Gray) Greene  
ASTERACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: wLow Arctic



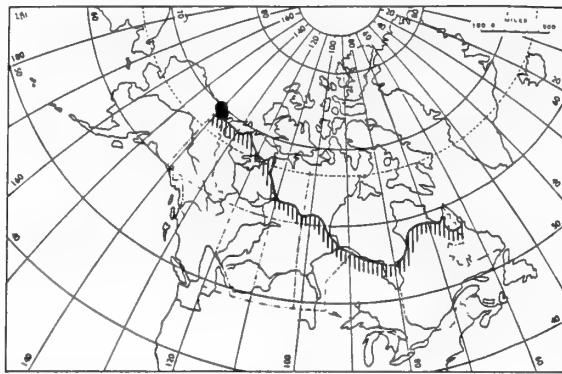
**Arnica lessingii**

**Artemisia arctica** Less. ssp. **arctica**

ASTERACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: wLow Arctic



**Artemisia arctica arctica**

**Artemisia arctica** Less. ssp. **comata**

(Rydb.) Hultén

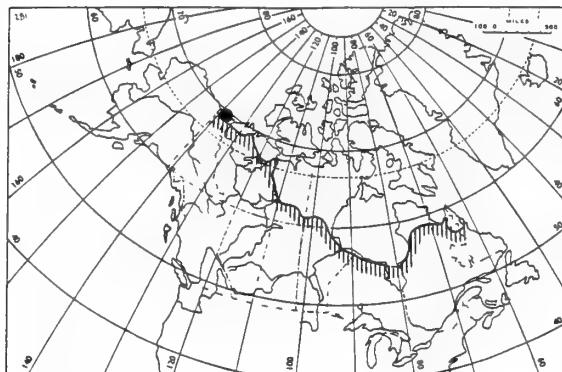
ASTERACEAE

Phytogeography: Arctic

Canadian Arctic: wLow Arctic

Status: Rare in the Yukon Territory and Canada.

Comment: Endemic



**Artemisia arctica comata**

**Artemisia furcata** M. Bieb. var. **furcata**

(*Artemisia furcata* var. *heterophylla*

(Besser) Hultén, *Artemisia hyperborea*

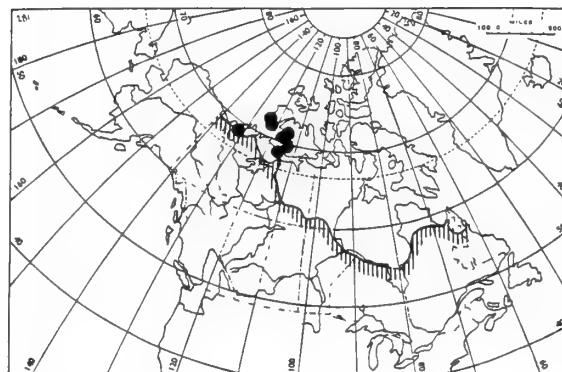
Rydb.)

ASTERACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: wLow Arctic

Status: Rare in the Yukon Territory, Alberta, and British Columbia.



**Artemisia furcata furcata**

**Artemisia furcata** var. **heterophylla** =

**Artemisia furcata** var. **furcata**

**Artemisia globularia** Cham. ex Bess.

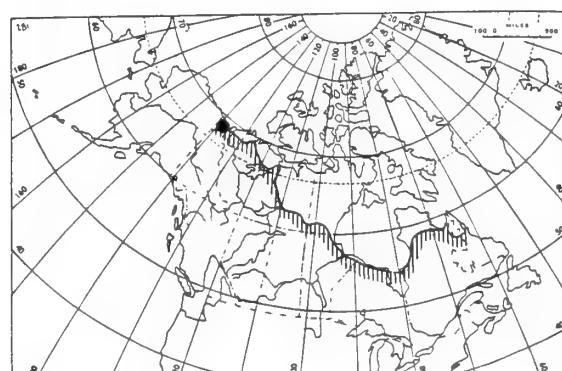
ASTERACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: wLow Arctic

Status: Rare in the Yukon Territory and Canada.

Comment: Disjunct



**Artemisia globularia**

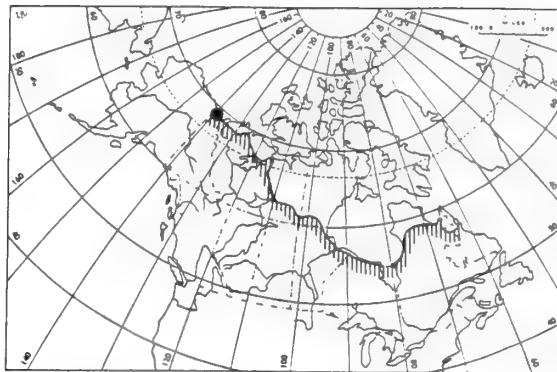
**Artemisia glomerata** Ledeb.

ASTERACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: wLow Arctic

Status: Rare in the Yukon Territory and Canada.



**Artemisia glomerata**

**Asplenium trichomanes-ramosum** L.

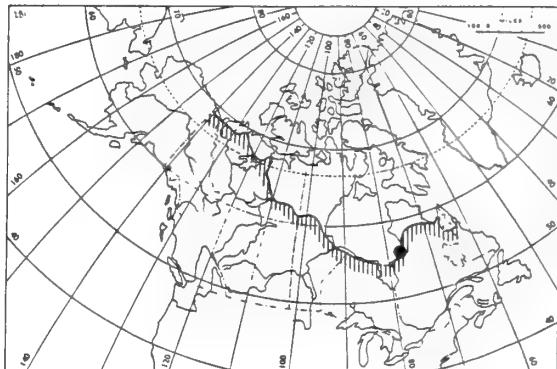
(*Asplenium viride* Huds.)

ASPLENIACEAE

Phytogeography: Boreal

Canadian Arctic: eLow Arctic

Status: Rare in the Yukon Territory, the Northwest Territories, Nova Scotia, New Brunswick, Quebec, and Alberta.



**Asplenium trichomanes-ramosum**

**Asplenium viride** = *Asplenium*

*trichomanes-ramosum*

**Aster alpinus** L. ssp. *vierhapperi* (Ohno)

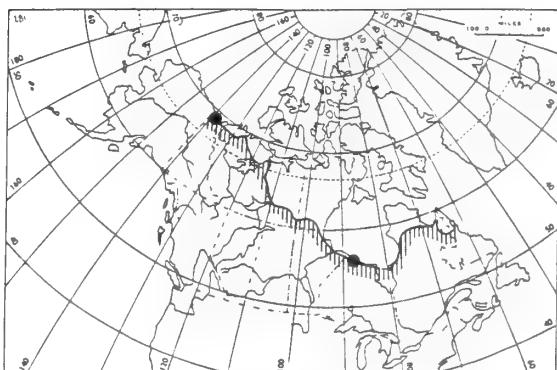
Cronq.

ASTERACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: Low Arctic

Status: Rare in Ontario.



**Aster alpinus vierhapperi**

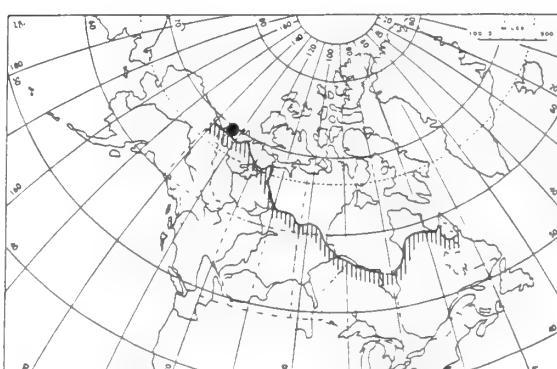
**Astragalus bodinii** Sheldon

FABACEAE

Phytogeography: Boreal

Canadian Arctic: wLow Arctic

Status: Rare in Newfoundland, Manitoba, and Saskatchewan.



**Astragalus bodinii**

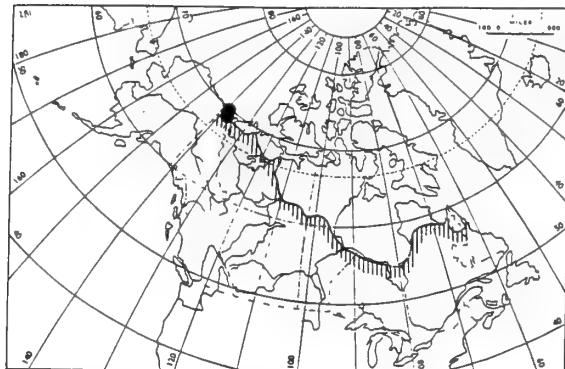
**Astragalus umbellatus** Bunge

FABACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: wLow Arctic

Status: Rare in British Columbia.



**Astragalus umbellatus**

**Atriplex gmelinii** C.A. Mey. ex Bong.

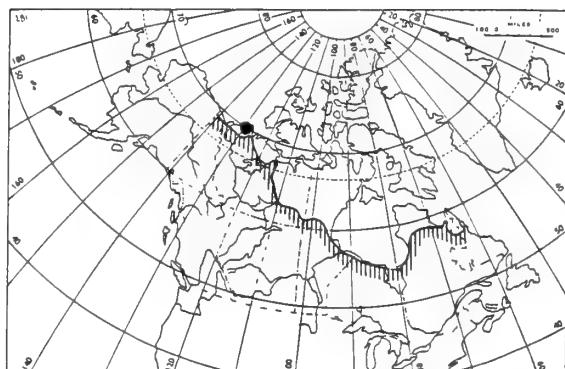
CHENOPODIACEAE

Phytogeography: Coastal

Canadian Arctic: wLow Arctic

Status: Rare in the Northwest Territories.

Comment: Disjunct



**Atriplex gmelinii**

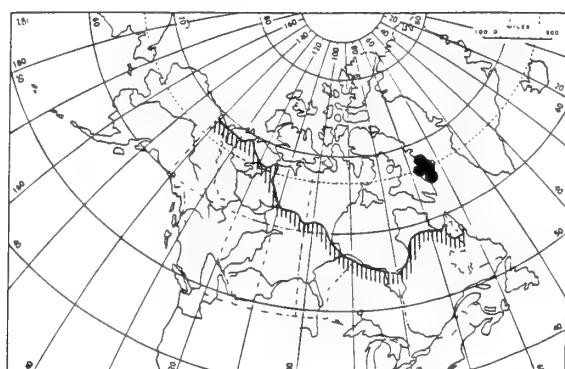
**Betula nana** L. ssp. **nana**

BETULACEAE

Phytogeography: Arctic

Canadian Arctic: eLow and eMid Arctic

Status: Rare in Canada.



**Betula nana nana**

**Blysmus rufus** = **Scirpus rufus**  
var. **neogaeus**

**Boschniakia rossica** (Cham. & Schlecht.)

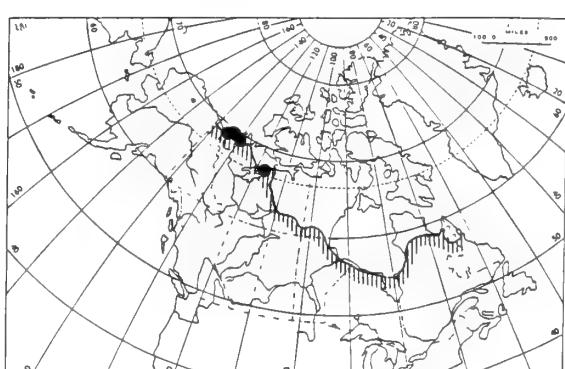
Fedtsch.

OROBANCHACEAE

Phytogeography: Boreal

Canadian Arctic: wLow Arctic

Status: Rare in Alberta and British Columbia.



**Boschniakia rossica**

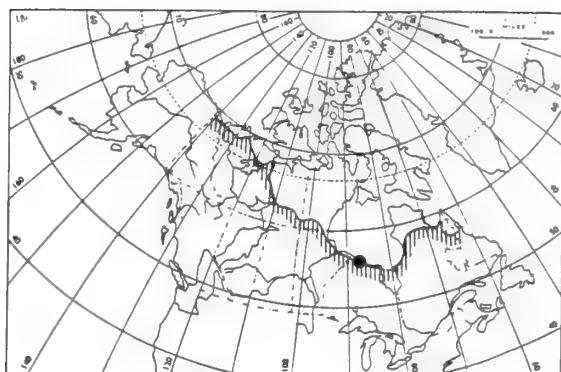
**Botrychium ascendens** W.H. Wagner

OPHIOGLOSSACEAE

Phytogeography: Montane

Canadian Arctic: eLow Arctic

Status: Rare in Ontario and Canada.



**Botrychium lunaria** ssp.

**minganense** = **Botrychium minganense**

**Botrychium minganense** Victorin

(*Botrychium lunaria* (L.) Sw. ssp.  
*minganense* (Victorin) Calder & Taylor)

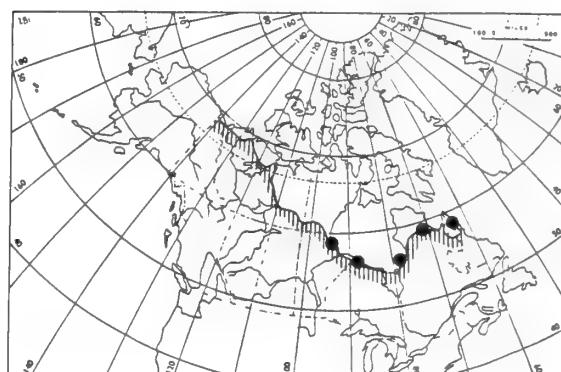
OPHIOGLOSSACEAE

Phytogeography: Boreal

Canadian Arctic: eLow Arctic

Status: Rare in the Northwest Territories,  
Saskatchewan, and British Columbia.

**Botrychium ascendens**



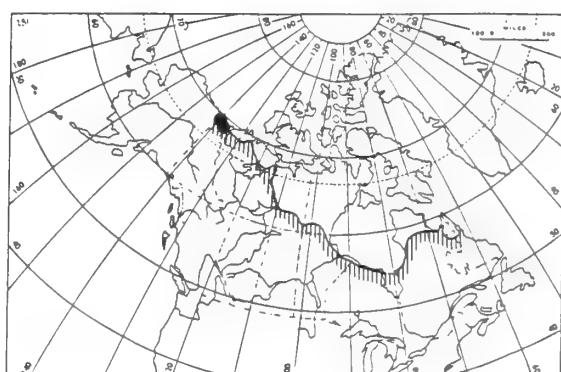
**Boykinia richardsonii** (Hook.) Rothrock

SAXIFRAGACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: wLow Arctic

**Botrychium minganense**



**Braya glabella** Richards.

(*Braya henryae* Raup)

BRASSICACEAE

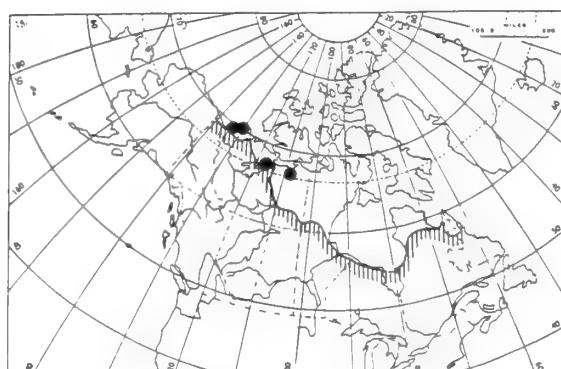
Phytogeography: Arctic-alpine

Canadian Arctic: wLow Arctic

Status: Rare in the Yukon Territory.

Comment: Endemic

**Boykinia richardsonii**



**Braya henryae** = **Braya glabella**

**Braya glabella**

**Braya pilosa** Hook.

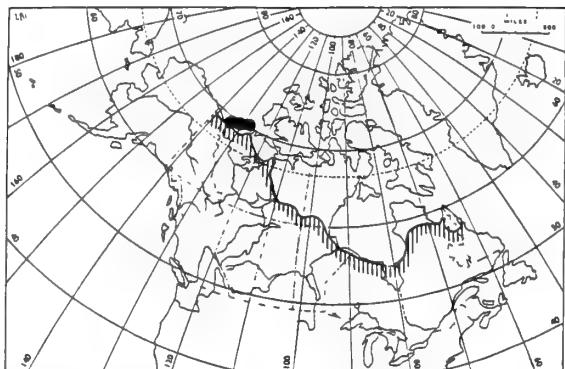
(*Braya purpurascens* (R. Br.) Bunge ssp.  
*pilosa* (Hook.) Hultén)

BRASSICACEAE

Phytogeography: Arctic

Canadian Arctic: wLow Arctic

Status: Rare in the Northwest Territories  
and Canada.



**Braya purpurascens** ssp. **pilosa** =  
**Braya pilosa**

**Braya thorild-wulffii** Ostenf.

BRASSICACEAE

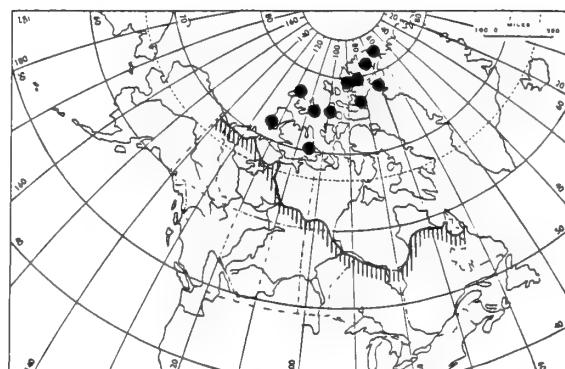
Phytogeography: Arctic

Canadian Arctic: wMid and High Arctic

Status: Rare in Canada.

Comment: Endemic, widely scattered  
populations.

**Braya pilosa**



**Braya thorild-wulffii**

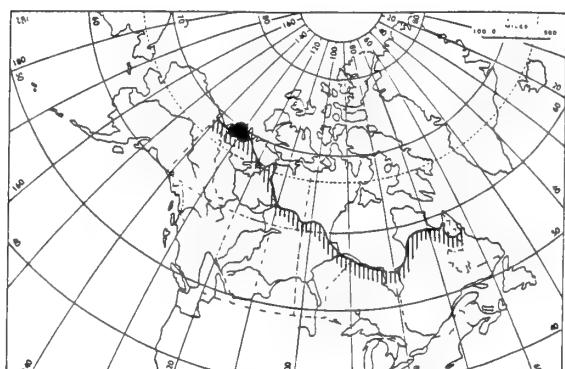
**Bromus pumpellianus** Scribn.

POACEAE

Phytogeography: Boreal

Canadian Arctic: wLow Arctic

Status: Rare in Ontario.



**Bromus pumpellianus**

**Calamagrostis holmii** Lange

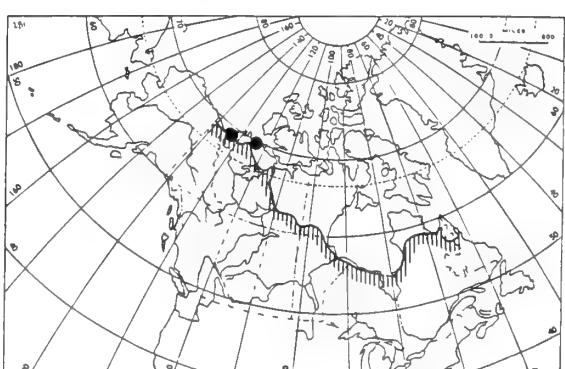
POACEAE

Phytogeography: Arctic

Canadian Arctic: wLow Arctic

Status: Rare in the Northwest Territories.

Comment: Disjunct



**Calamagrostis holmii**

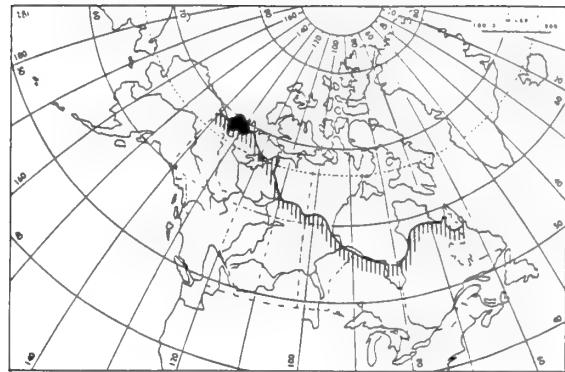
***Calla palustris* L.**

ARACEAE

Phytogeography: Boreal

Canadian Arctic: wLow Arctic

Status: Rare in Newfoundland.



***Calla palustris***

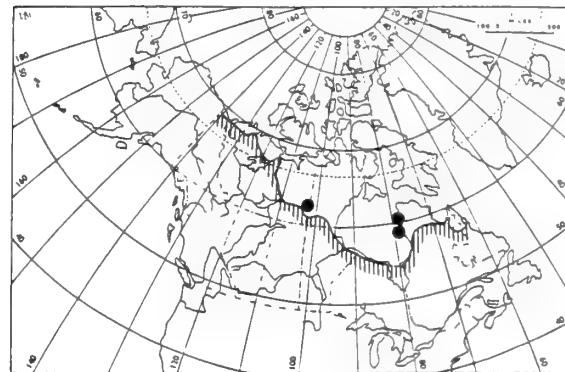
***Callitrichia anceps* Fern.**

CALLITRICHACEAE

Phytogeography: Aquatic

Canadian Arctic: Low Arctic

Status: Rare in the Yukon Territory, the Northwest Territories, and British Columbia.



***Callitrichia anceps***

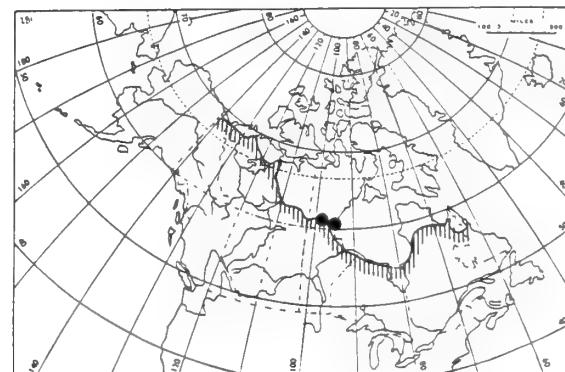
***Caltha natans* Pallas ex Georgi**

RANUNCULACEAE

Phytogeography: Boreal

Canadian Arctic: eLow Arctic

Status: Rare in the Yukon Territory and British Columbia.



***Caltha natans***

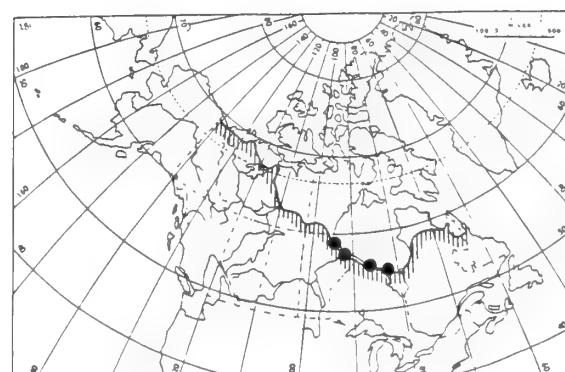
***Caltha palustris* L. var. *palustris***

RANUNCULACEAE

Phytogeography: Boreal

Canadian Arctic: eLow Arctic

Status: Rare in the Northwest Territories and Nova Scotia.



***Caltha palustris* palustris**

**Carex adelostoma** Krecz.

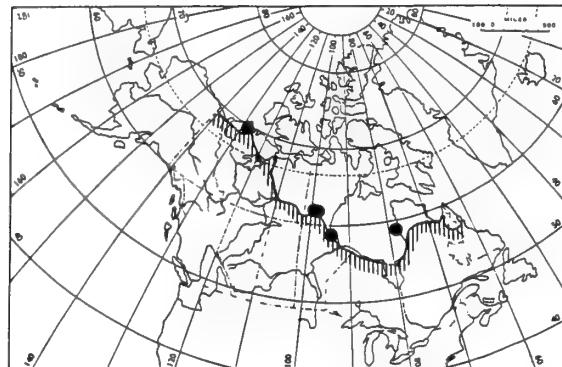
(*Carex morrisseyi* Porsild)

CYPERACEAE

Phytogeography: Boreal

Canadian Arctic: Low Arctic

Status: Rare in Quebec and Canada.



**Carex adelostoma**

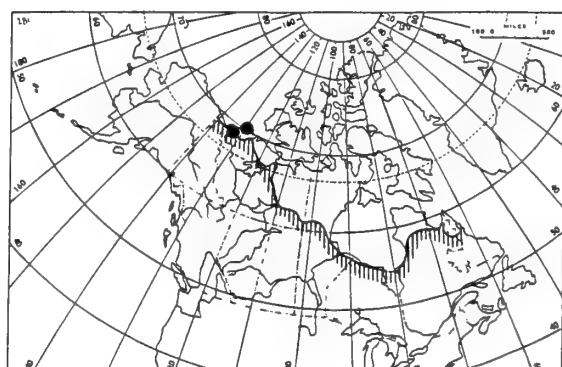
**Carex albonigra** Mackenzie

CYPERACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: wLow Arctic

Status: Rare in the Yukon Territory.



**Carex albonigra**

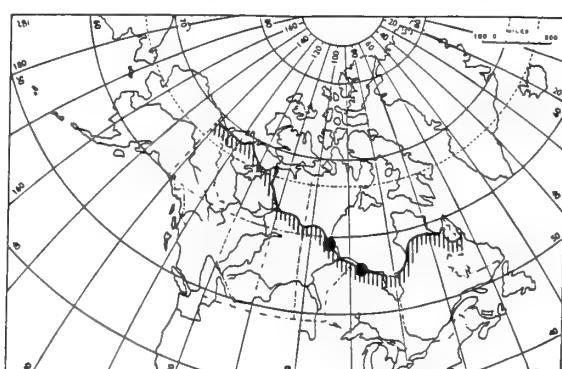
**Carex arcta** Boott

CYPERACEAE

Phytogeography: Boreal

Canadian Arctic: eLow Arctic

Status: Rare in the Yukon Territory, the Northwest Territories, Newfoundland, Manitoba, and Saskatchewan.



**Carex arcta**

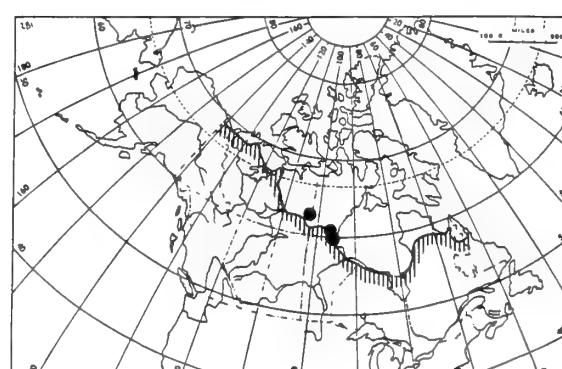
**Carex deflexa** Hornem.

CYPERACEAE

Phytogeography: Boreal

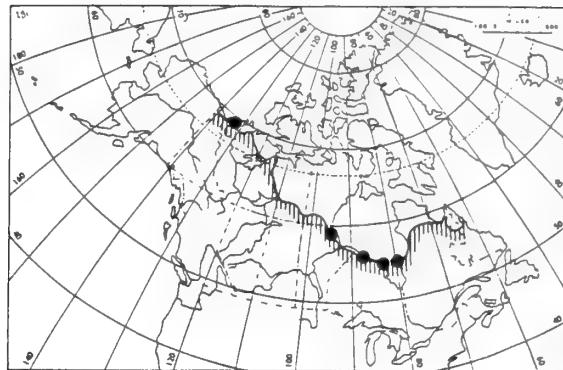
Canadian Arctic: Low Arctic

Status: Rare in Prince Edward Island and Alberta.



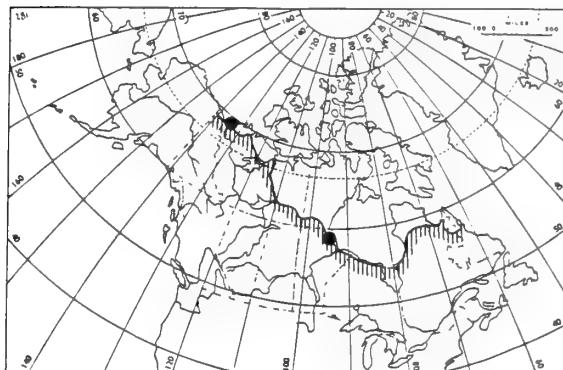
**Carex deflexa**

**Carex diandra** Schrank  
CYPERACEAE  
Phytogeography: Boreal  
Canadian Arctic: Low Arctic



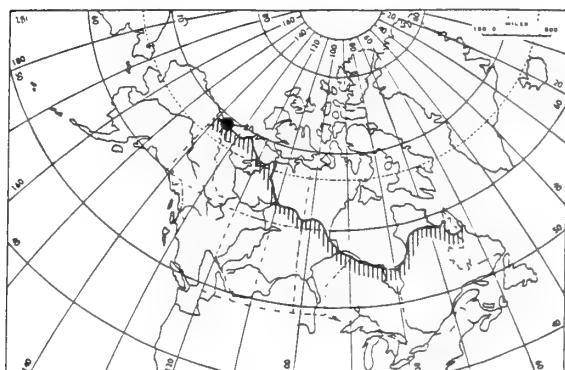
**Carex diandra**

**Carex disperma** Dewey  
CYPERACEAE  
Phytogeography: Boreal  
Canadian Arctic: Low Arctic



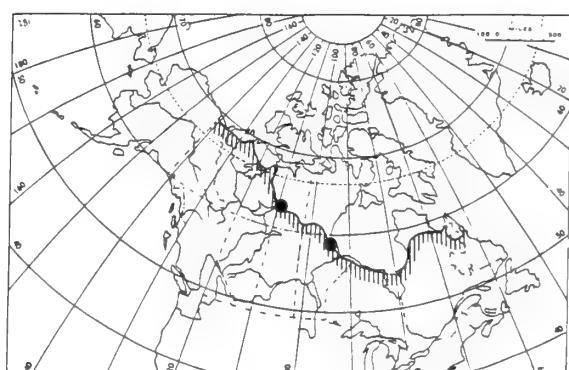
**Carex disperma**

**Carex laxa** Wahlenb.  
CYPERACEAE  
Phytogeography: Arctic-alpine  
Canadian Arctic: wLow Arctic  
Status: Rare in the Yukon Territory, the  
Northwest Territories, and Canada.  
Comment: Disjunct



**Carex laxa**

**Carex leptalea** Wahlenb.  
CYPERACEAE  
Phytogeography: Boreal  
Canadian Arctic: Low Arctic



**Carex leptalea**

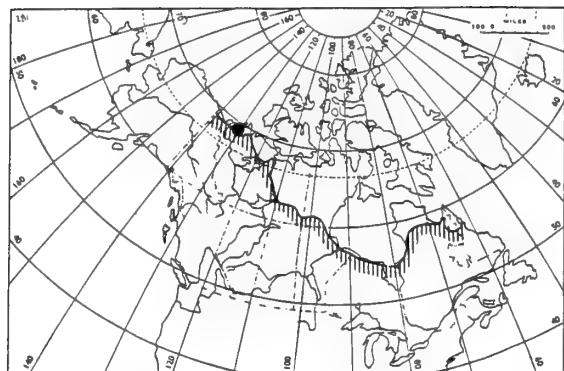
**Carex limosa** L.

CYPERACEAE

Phytogeography: Boreal

Canadian Arctic: wLow Arctic

Status: Rare in Prince Edward Island.



**Carex livida var. grayana = Carex livida  
var. radicaulis**

**Carex livida** (Wahlenb.) Willd. var.

**radicaulis** Paine

(*Carex livida* var. *grayana* (Dewey)  
Fern.)

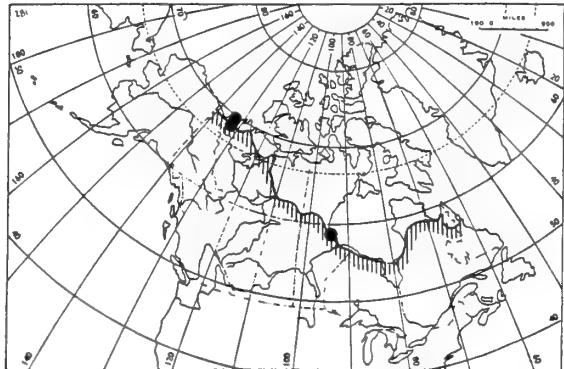
CYPERACEAE

Phytogeography: Boreal

Canadian Arctic: Low Arctic

Status: Rare in the Yukon Territory, Nova Scotia, New Brunswick, and Manitoba.

**Carex limosa**



**Carex macloviana** d'Urv. ssp. **macloviana**

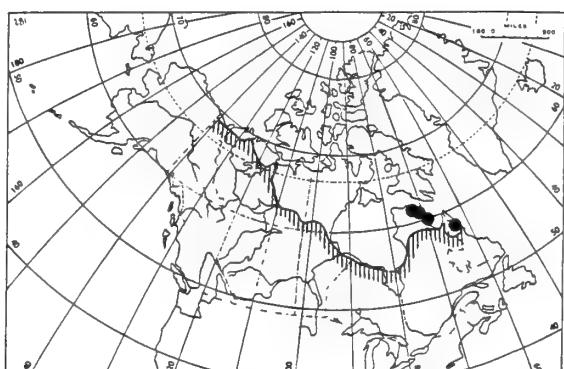
CYPERACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: eLow and eMid Arctic

Status: Rare in Quebec and Manitoba.

**Carex livida radicaulis**



**Carex media** Dewey

CYPERACEAE

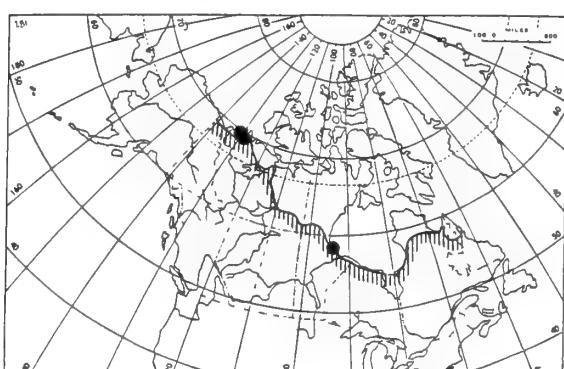
Phytogeography: Boreal

Canadian Arctic: Low Arctic

Status: Rare in New Brunswick and Saskatchewan.

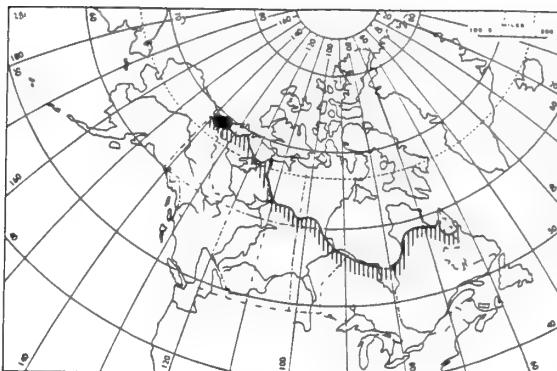
Comment: Disjunct

**Carex macloviana macloviana**



**Carex media**

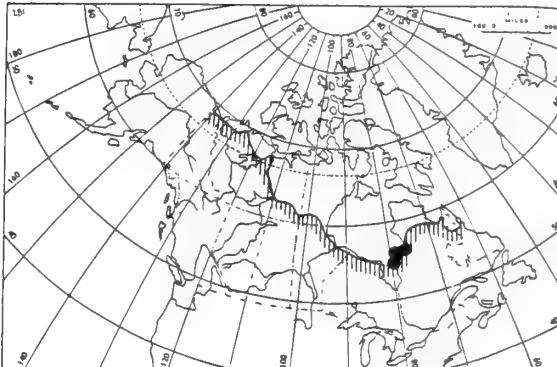
**Carex michrochaeta** Holm  
CYPERACEAE  
Phytogeography: Arctic-alpine  
Canadian Arctic: wLow Arctic



**Carex morrisseyi = Carex adelostoma**

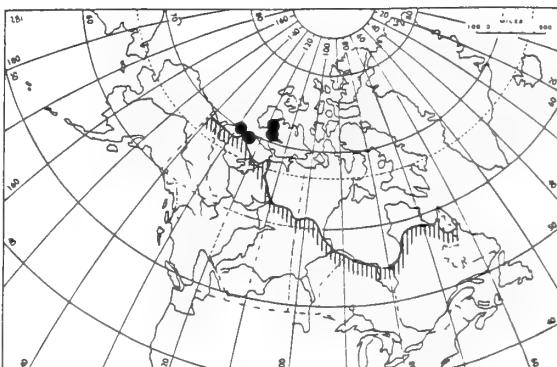
**Carex paleacea** Schreb. ex Wahlenb.  
CYPERACEAE  
Phytogeography: Coastal  
Canadian Arctic: eLow Arctic  
Status: Rare in Manitoba.

**Carex michrochaeta**



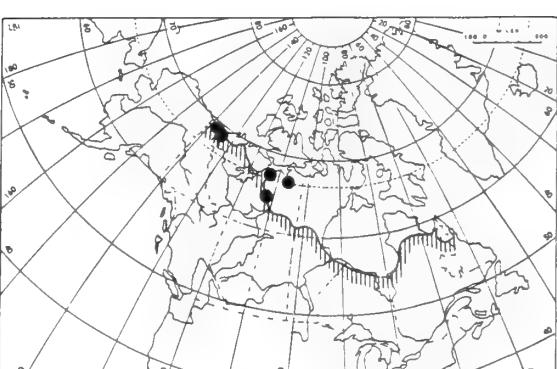
**Carex paleacea**

**Carex petricosa** Dewey  
CYPERACEAE  
Phytogeography: Arctic-alpine  
Canadian Arctic: wLow Arctic  
Status: Rare in British Columbia.



**Carex petricosa**

**Carex podocarpa** R. Br.  
CYPERACEAE  
Phytogeography: Arctic-alpine  
Canadian Arctic: wLow Arctic



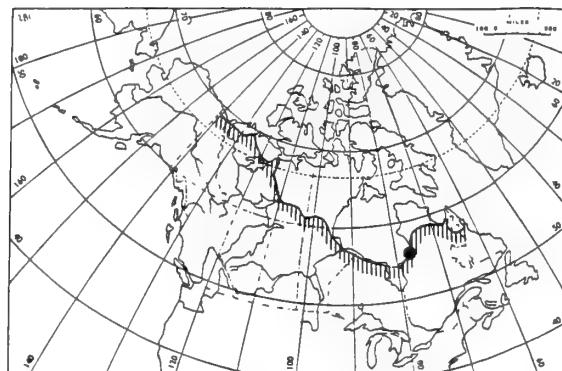
**Carex podocarpa**

**Carex praticola** Rydb.

CYPERACEAE

Phytogeography: Boreal

Canadian Arctic: eLow Arctic



**Carex praticola**

**Carex rufina** Drej.

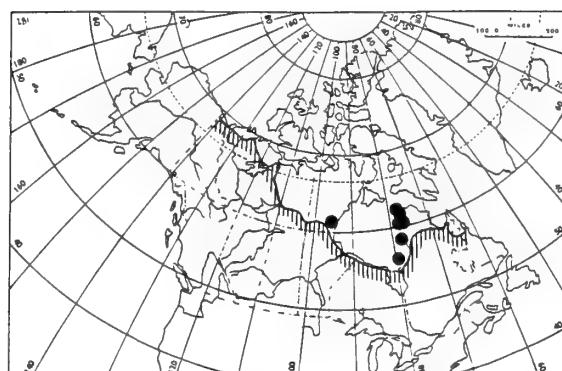
CYPERACEAE

Phytogeography: Arctic

Canadian Arctic: eLow Arctic

Status: Rare in the Northwest Territories, Manitoba, and Canada.

Comment: Disjunct



**Carex rufina**

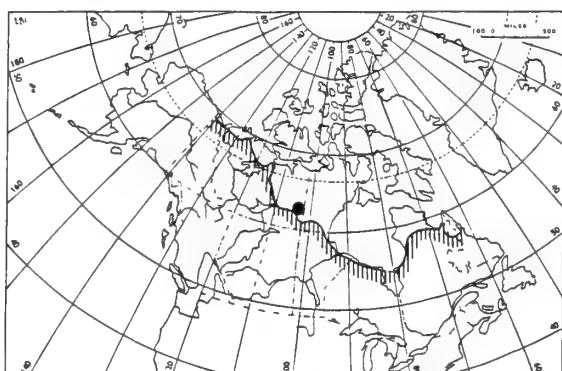
**Carex trisperma** Dewey

CYPERACEAE

Phytogeography: Boreal

Canadian Arctic: wLow Arctic

Status: Rare in the Northwest Territories, Saskatchewan, Alberta, and British Columbia.



**Carex trisperma**

**Castilleja hyperborea** Pennell

SCROPHULARIACEAE

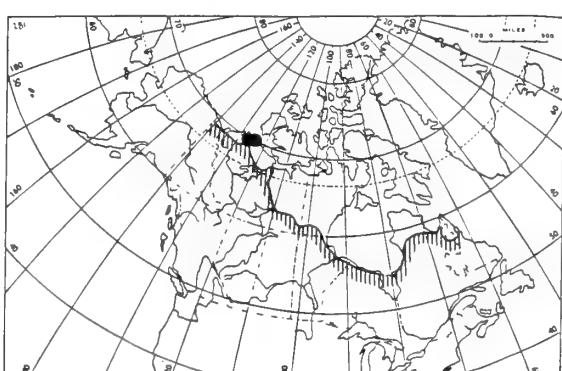
Phytogeography: Arctic-alpine

Canadian Arctic: wLow Arctic

Status: Rare in British Columbia.

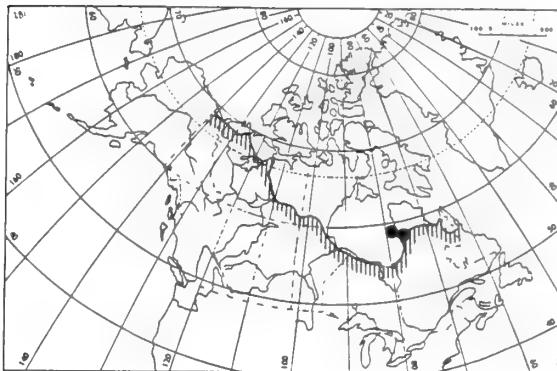
**Castilleja pallida** ssp. *septentrionalis* =

**Castilleja septentrionalis**



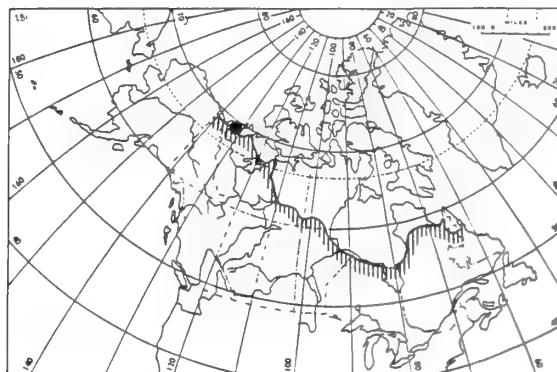
**Castilleja hyperborea**

**Castilleja septentrionalis** Lindl.  
(*Castilleja pallida* (L.) Spreng. ssp.  
*septentrionalis* (Lindl.) Scoggan)  
SCROPHULARIACEAE  
Phytogeography: Boreal  
Canadian Arctic: eLow Arctic



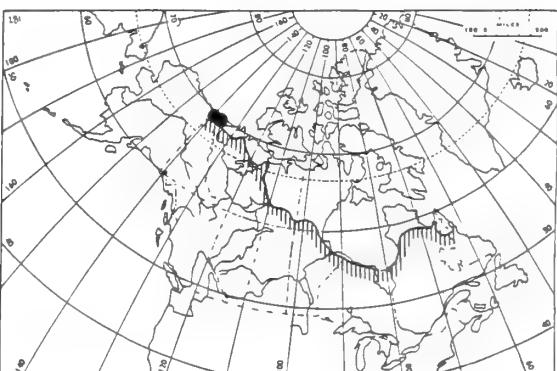
**Castilleja septentrionalis**

**Castilleja yukonis** Pennell  
SCROPHULARIACEAE  
Phytogeography: Arctic-alpine  
Canadian Arctic: wLow Arctic  
Status: Rare in the Northwest Territories.  
Comment: Endemic



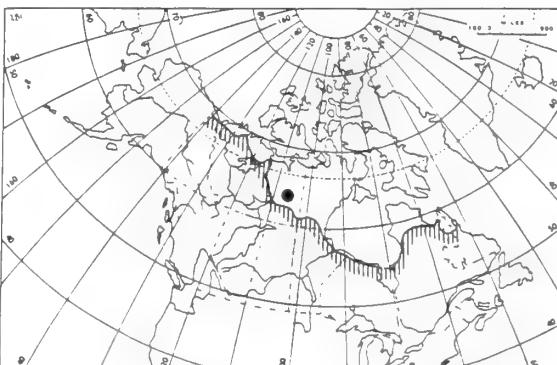
**Castilleja yukonis**

**Cerastium maximum** L.  
CARYOPHYLLACEAE  
Phytogeography: Arctic-alpine  
Canadian Arctic: wLow Arctic  
Status: Rare in the Northwest Territories.



**Cerastium maximum**

**Ceratophyllum demersum** L.  
CERATOPHYLLACEAE  
Phytogeography: Aquatic  
Canadian Arctic: wLow Arctic  
Status: Rare in the Northwest Territories  
and Prince Edward Island.



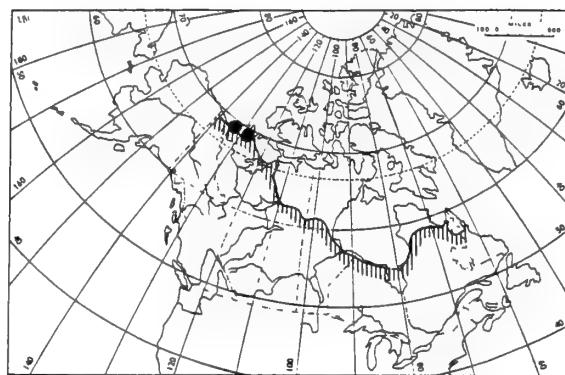
**Ceratophyllum demersum**

***Chenopodium capitatum* (L.) Aschers.**

CHENOPODIACEAE

Phytogeography: Boreal

Canadian Arctic: wLow Arctic



***Chenopodium glaucum* ssp. *salinum* =  
*Chenopodium salinum***

***Chenopodium glaucum* var. *pulchrum* =  
*Chenopodium salinum***

***Chenopodium salinum* Standl.**

(*Chenopodium glaucum* ssp. *salinum*  
(Standl.) Aellen, *Chenopodium glaucum*  
var. *pulchrum* Aellen)

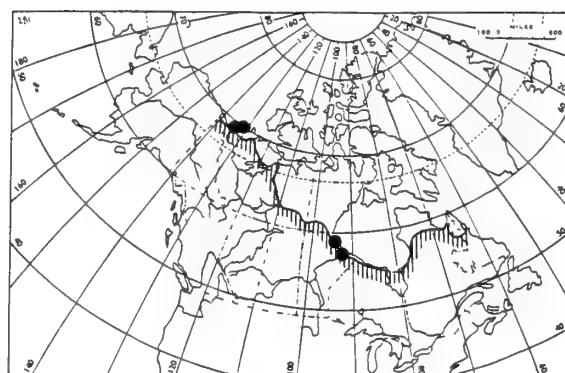
CHENOPODIACEAE

Phytogeography: Boreal

Canadian Arctic: Low Arctic

Status: Rare in the Yukon Territory.

***Chenopodium capitatum***



***Coeloglossum viride* ssp. *bracteatum* =  
*Coeloglossum viride* var. *virescens***

***Coeloglossum viride* (L.) Hartman var.  
*virescens* (Muhl. ex Willd.) Luer**

(*Habenaria viridis* var. *bracteata* (Muhl.  
ex Willd.) Reichenb. ex Gray.,

*Coeloglossum viride* ssp. *bracteatum*  
(Muhl. ex Willd.) Hultén)

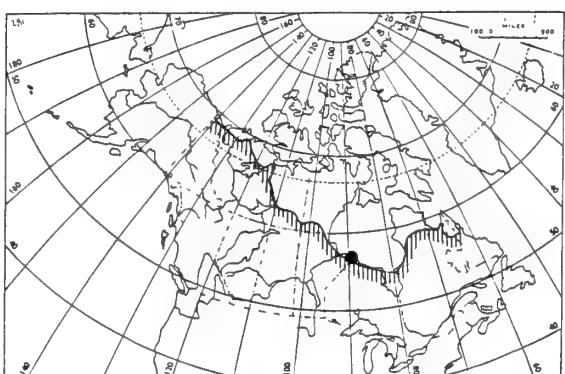
ORCHIDACEAE

Phytogeography: Boreal

Canadian Arctic: eLow Arctic

Status: Rare in the Yukon Territory, Nova  
Scotia, and Saskatchewan.

***Chenopodium salinum***



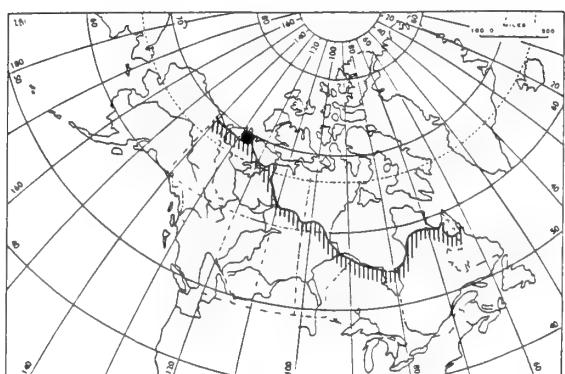
***Coeloglossum viride* *virescens***

***Crepis elegans* Hook.**

ASTERACEAE

Phytogeography: Boreal

Canadian Arctic: wLow Arctic



***Crepis elegans***

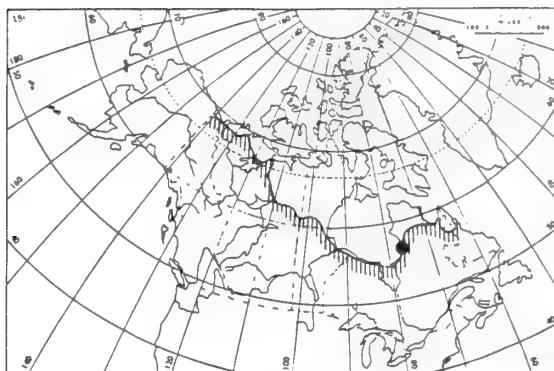
**Cryptogramma stelleri** (Gmel.) Prantl

ADIANTACEAE

Phytogeography: Boreal

Canadian Arctic: eLow Arctic

Status: Rare in the Yukon Territory, the Northwest Territories, Nova Scotia, Saskatchewan, and British Columbia.



**Cryptogramma stelleri**

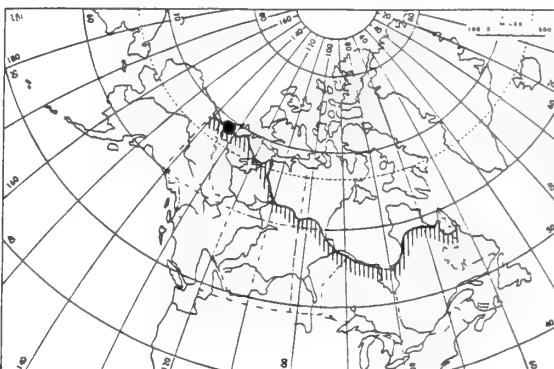
**Cypripedium guttatum** Sw. ssp. **guttatum**

ORCHIDACEAE

Phytogeography: Boreal

Canadian Arctic: wLow Arctic

Status: Rare in the Yukon Territory.



**Cypripedium guttatum guttatum**

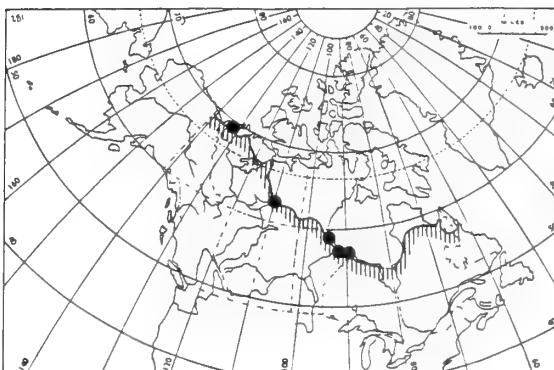
**Cypripedium passerinum** Richards.

ORCHIDACEAE

Phytogeography: Boreal

Canadian Arctic: Low Arctic

Status: Rare in Saskatchewan and British Columbia.



**Cypripedium passerinum**

**Delphinium glaucum** S. Wats.

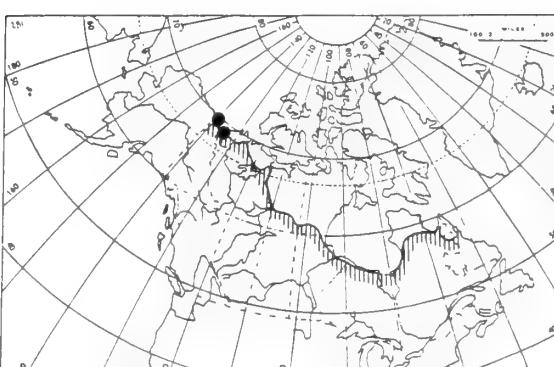
RANUNCULACEAE

Phytogeography: Boreal

Canadian Arctic: wLow Arctic

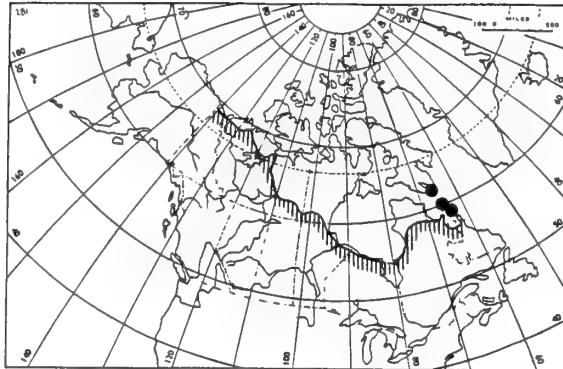
Status: Rare in Saskatchewan.

**Deschampsia alpina** = **Deschampsia cespitosa** ssp. **alpina**



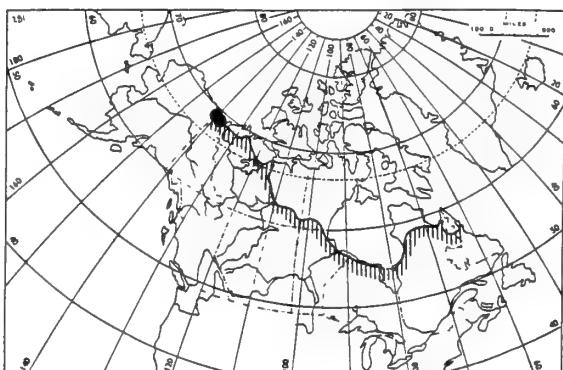
**Delphinium glaucum**

**Deschampsia cespitosa** (L.) Beauv. ssp.  
**alpina** (L.) Tzvelev  
 (Deschampsia alpina (L.) Roemer & J.A.  
 Schultes)  
 POACEAE  
 Phytogeography: Arctic-alpine  
 Canadian Arctic: eLow and eMid Arctic  
 Status: Rare in the Northwest Territories,  
 Quebec, and Canada.



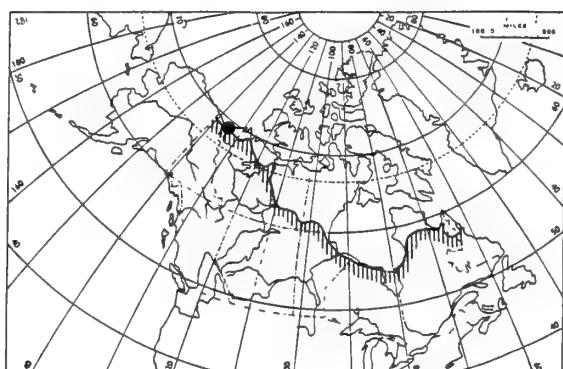
**Deschampsia cespitosa alpina**

**Dianthus repens** Willd.  
 CARYOPHYLLACEAE  
 Phytogeography: Arctic-alpine  
 Canadian Arctic: wLow Arctic  
 Status: Rare in the Yukon Territory and  
 Canada.



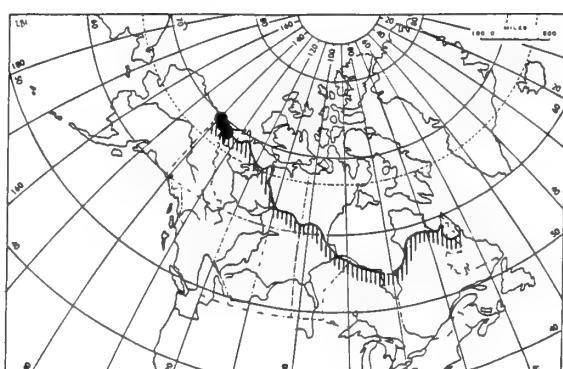
**Dianthus repens**

**Diapensia lapponica** L. var. **obovata** F.  
 Schmidt  
 (Diapensia obovata (F. Schmidt) Nakai)  
 DIAPENSIACEAE  
 Phytogeography: Arctic-alpine  
 Canadian Arctic: wLow Arctic  
 Status: Rare in British Columbia.



**Diapensia lapponica obovata**

**Diapensia obovata** = **Diapensia lapponica**  
 var. **obovata**



**Dodecatheon frigidum**

**Douglasia arctica** Hook.

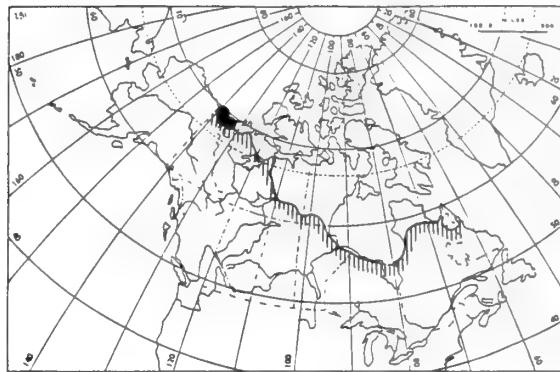
PRIMULACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: wLow Arctic

Status: Rare in the Northwest Territories.

Comment: Endemic



**Douglasia arctica**

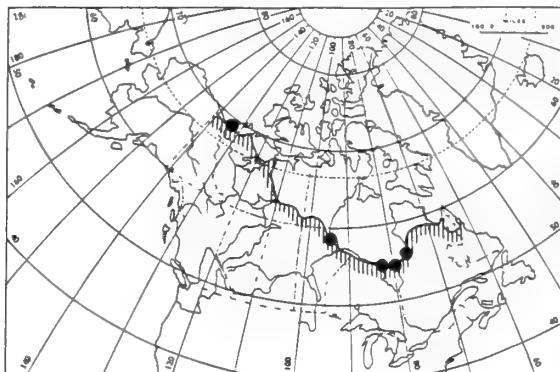
**Draba aurea** Vahl ex Hornem.

BRASSICACEAE

Phytogeography: Boreal

Canadian Arctic: Low Arctic

Status: Rare in Newfoundland, Manitoba, and Saskatchewan.



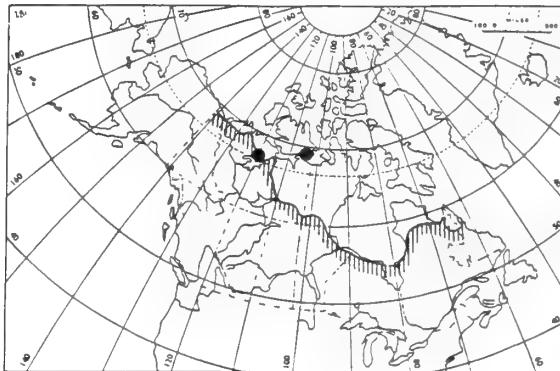
**Draba aurea**

**Draba borealis** DC.

BRASSICACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: wLow Arctic



**Draba borealis**

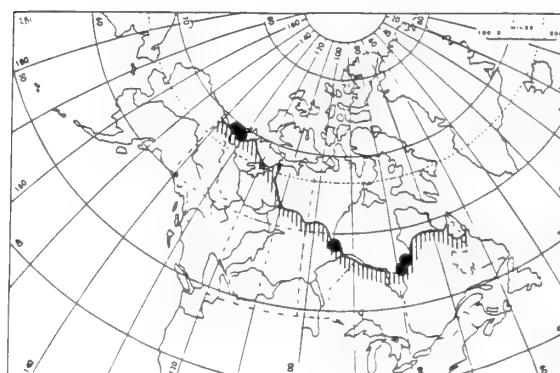
**Draba cana** Rydb.

BRASSICACEAE

Phytogeography: Boreal

Canadian Arctic: Low Arctic

Status: Rare in New Brunswick, Manitoba, and Saskatchewan.



**Draba cana**

**Draba incana** var. **confusa** = **Draba incana**

**Draba incana** L.

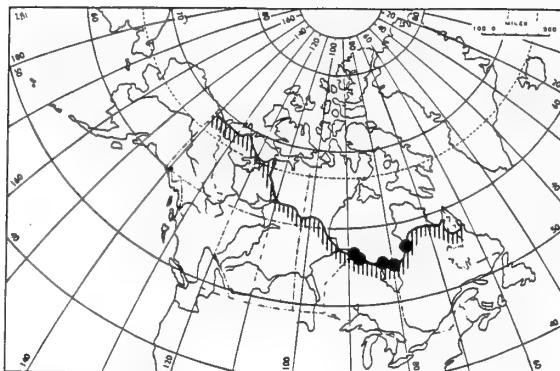
(*Draba incana* var. *confusa* (Ehrh.) Lilj.)

BRASSICACEAE

Phytogeography: Boreal

Canadian Arctic: eLow Arctic

Status: Rare in Prince Edward Island, New Brunswick, and Manitoba.



**Draba incana**

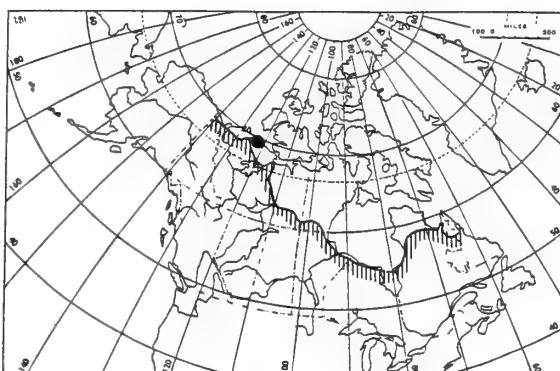
**Draba incerta** Payson

BRASSICACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: wLow Arctic

Status: Rare in the Northwest Territories.



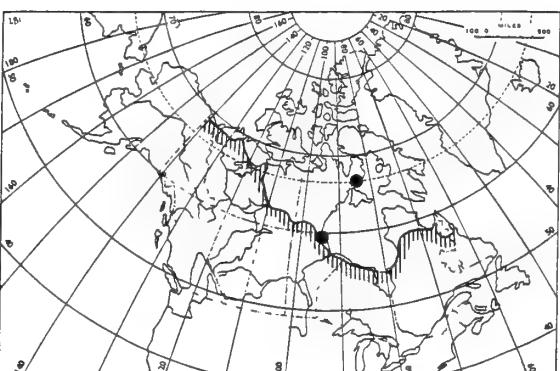
**Draba incerta**

**Draba nemorosa** L. var. *leiocarpa* Lindbl.

BRASSICACEAE

Phytogeography: Boreal

Canadian Arctic: eLow and Mid Arctic



**Draba nemorosa leiocarpa**

**Draba palanderiana** Kjellm.

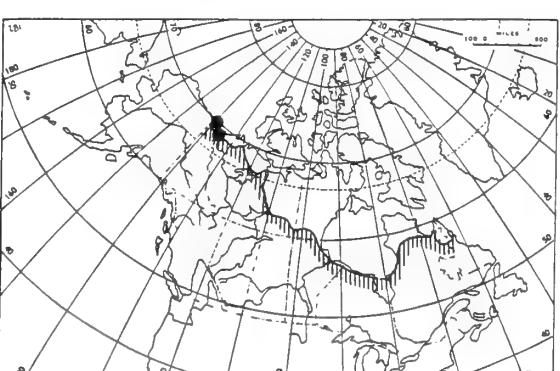
BRASSICACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: wLow Arctic

Status: Rare in British Columbia.

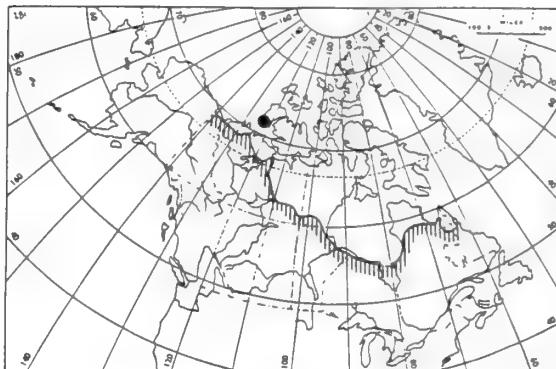
**Dryas chamissonis** = *Dryas integrifolia*  
ssp. *chamissonis*



**Draba palanderiana**

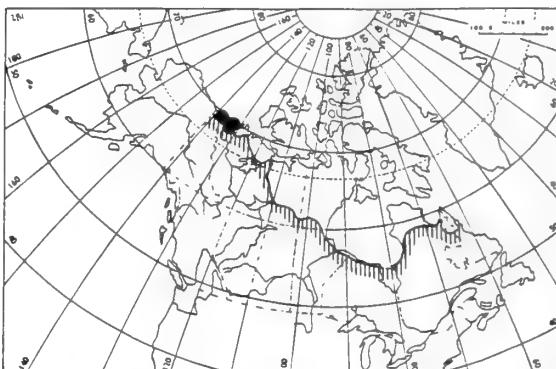
**Dryas crenulata = Dryas integrifolia  
ssp. crenulata**

**Dryas integrifolia** Vahl ssp. **chamissonis**  
(Spreng.) Scoggan  
(*Dryas chamissonis* Spreng.)  
ROSACEAE  
Phytogeography: Arctic  
Canadian Arctic: wLow Arctic  
Status: Rare in the Northwest Territories  
and Canada.  
Comment: Disjunct



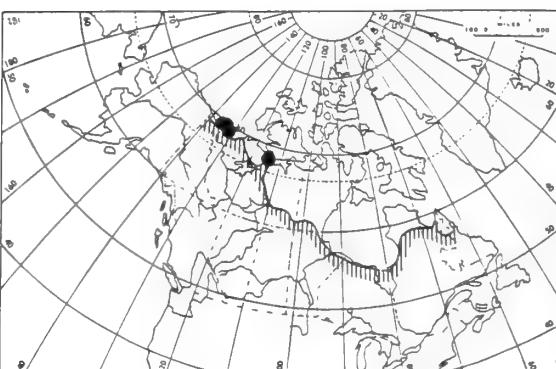
**Dryas integrifolia chamissonis**

**Dryas integrifolia** Vahl ssp. **crenulata**  
(Juz.) Scoggan  
(*Dryas crenulata* Juz.)  
ROSACEAE  
Phytogeography: Arctic-alpine  
Canadian Arctic: wLow Arctic



**Dryas integrifolia crenulata**

**Dryas integrifolia** Vahl ssp. **sylvatica**  
(Hultén) Hultén  
(*Dryas sylvatica* (Hultén) Porsild)  
ROSACEAE  
Phytogeography: Boreal  
Canadian Arctic: wLow Arctic

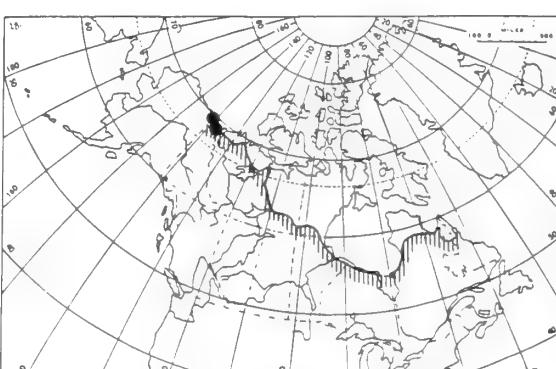


**Dryas integrifolia sylvatica**

**Dryas octopetala** L. ssp. **octopetala**  
ROSACEAE  
Phytogeography: Arctic-alpine  
Canadian Arctic: wLow Arctic

**Dryas sylvatica = Dryas integrifolia  
ssp. sylvatica**

**Dryopteris disjuncta = Gymnocarpium  
disjunctum**



**Dryas octopetala octopetala**

**Dryopteris phegopteris = Phegopteris connectilis**

**Eleocharis kamtschatica** (C.A. Mey)

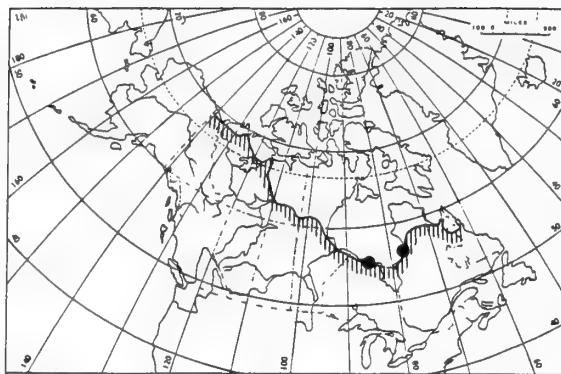
Komarov

CYPERACEAE

Phytogeography: Coastal

Canadian Arctic: eLow Arctic

Status: Rare in Newfoundland, Ontario, and British Columbia.



**Eleocharis kamtschatica**

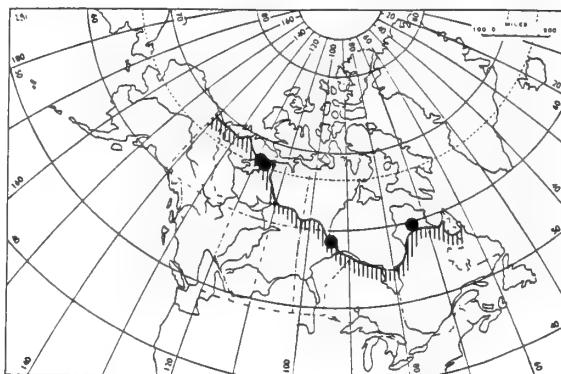
**Elymus trachycaulus** (Link) Gould ex Shinners

(Agropyron trachycaulum (Link) Malte)

POACEAE

Phytogeography: Boreal

Canadian Arctic: Low Arctic



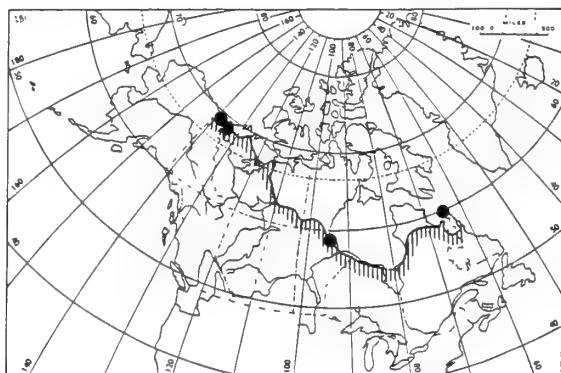
**Elymus trachycaulus**

**Equisetum palustre** L.

EQUISETACEAE

Phytogeography: Boreal

Canadian Arctic: Low Arctic



**Equisetum palustre**

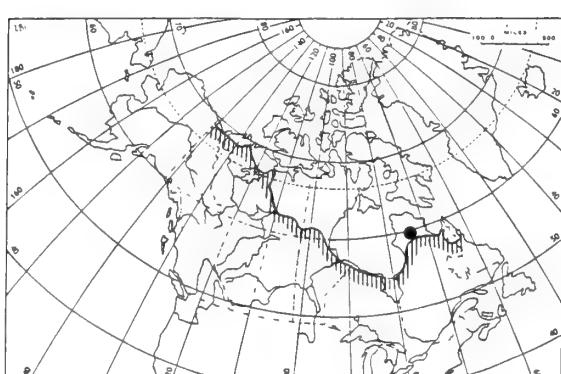
**Equisetum pratense** Ehrh.

EQUISETACEAE

Phytogeography: Boreal

Canadian Arctic: eLow Arctic

Status: Rare in Newfoundland.



**Equisetum pratense**

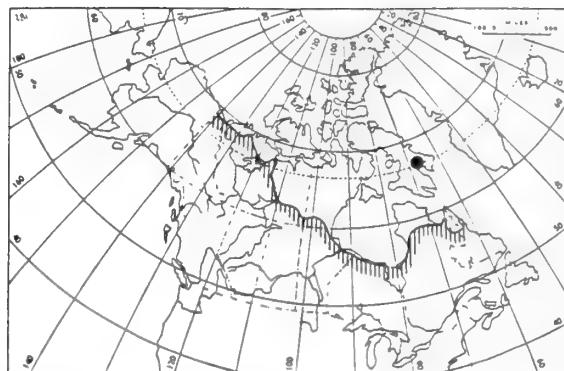
***Erigeron alpiniformis* Cronq.**

ASTERACEAE

Phytogeography: Arctic

Canadian Arctic: eLow Arctic

Status: Rare in the Northwest Territories.



***Erigeron alpiniformis***

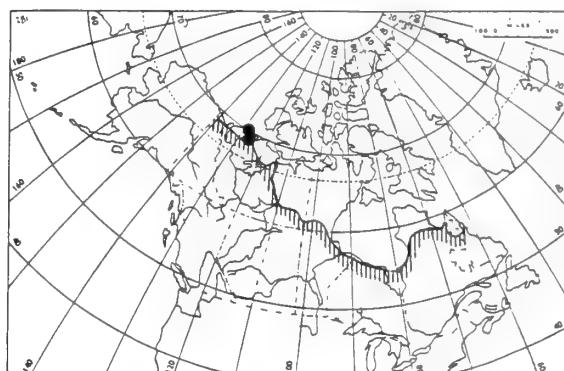
***Erigeron glabellus* Nutt. ssp. *pubescens***

(Hook.) Cronq.

ASTERACEAE

Phytogeography: Boreal

Canadian Arctic: wLow Arctic



***Erigeron glabellus pubescens***

***Erigeron grandiflorus* Hook. ssp.**

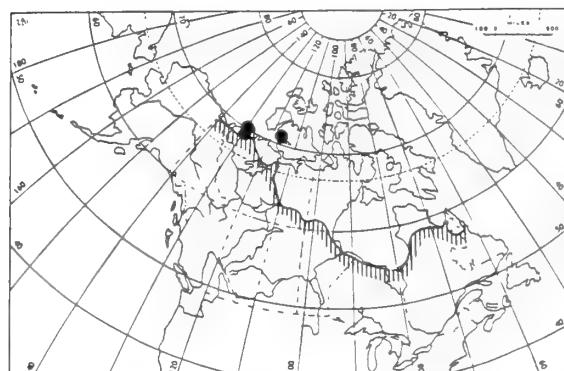
***arcticus*** Porsild

ASTERACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: wLow Arctic

Status: Rare in British Columbia.



***Erigeron grandiflorus arcticus***

***Erigeron grandiflorus* ssp. *muirii* =  
*Erigeron muirii***

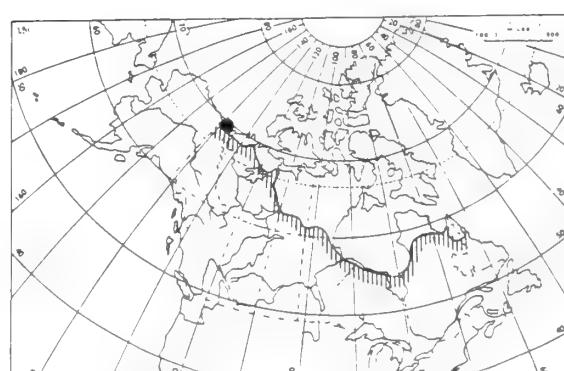
***Erigeron hyperboreus* Greene**

ASTERACEAE

Phytogeography: Arctic

Canadian Arctic: wLow Arctic

Status: Rare in the Yukon Territory and Canada.



***Erigeron hyperboreus***

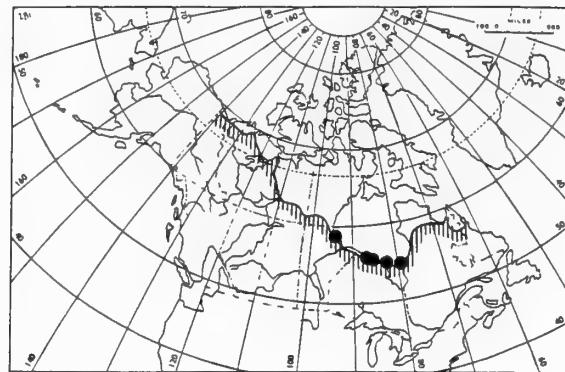
***Erigeron lonchophyllum*** Hook.

ASTERACEAE

Phytogeography: Boreal

Canadian Arctic: eLow Arctic

Status: Rare in Quebec.



***Erigeron lonchophyllum***

***Erigeron muirii*** Gray

(*Erigeron grandiflorus* Hook ssp. *muirii*)

(Gray) Hultén

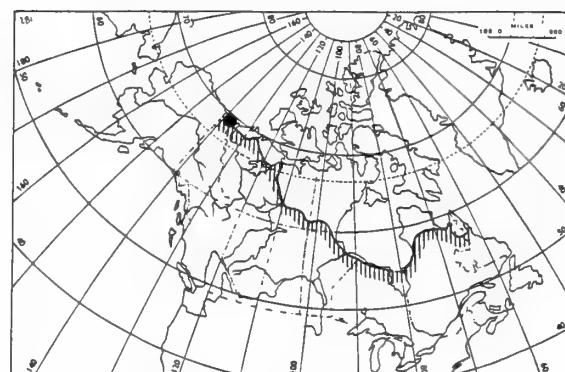
ASTERACEAE

Phytogeography: Arctic

Canadian Arctic: wLow Arctic

Status: Rare in the Yukon Territory and Canada.

Comment: Endemic



***Erigeron muirii***

***Erigeron yukonensis*** Rydb.

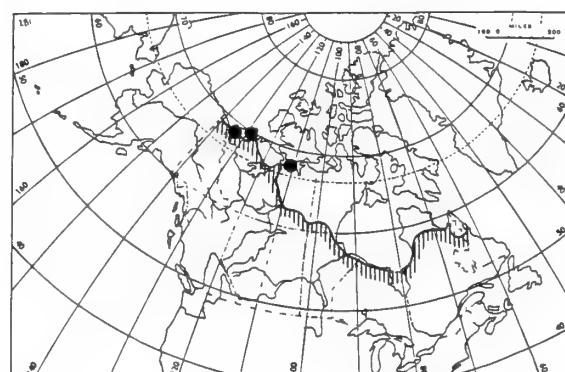
ASTERACEAE

Phytogeography: Boreal

Canadian Arctic: wLow Arctic

Status: Rare in the Northwest Territories.

Comment: Endemic



***Erigeron yukonensis***

***Eriophorum gracile*** W.D.J. Koch ex Roth

CYPERACEAE

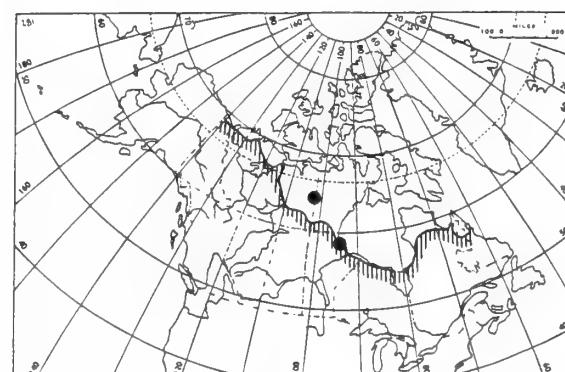
Phytogeography: Boreal

Canadian Arctic: Low Arctic

Status: Rare in Newfoundland, Prince

Edward Island, Nova Scotia, and New

Brunswick.



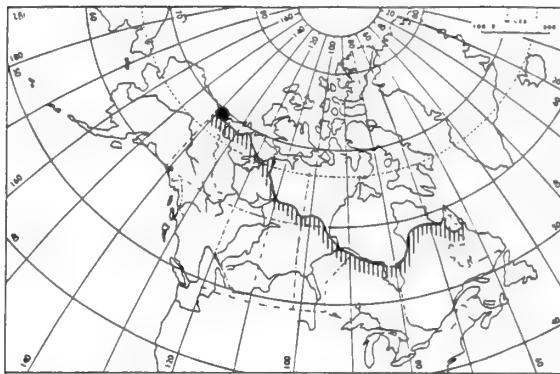
***Eriophorum gracile***

**Eritrichium aretioides** (Cham.) A. DC.

BORAGINACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: wLow Arctic



**Eritrichium aretioides**

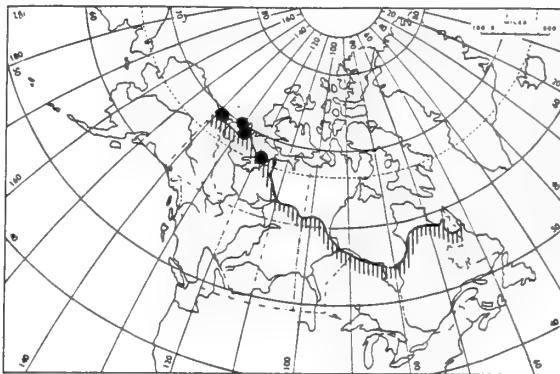
**Festuca altaica** Trin.

POACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: wLow Arctic

Status: Rare in Newfoundland and Alberta.



**Festuca altaica**

**Festuca lenensis** Drobov

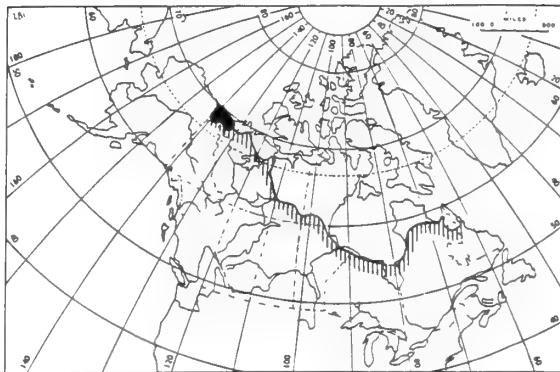
(*Festuca ovina* ssp. *alaskana* Holmen)

POACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: wLow Arctic

Status: Rare in the Yukon Territory, the Northwest Territories, and Canada.



**Festuca lenensis**

**Festuca ovina** ssp. *alaskana* = *Festuca lenensis*

**Festuca vivipara** (L.) Sm. ssp. *glabra*

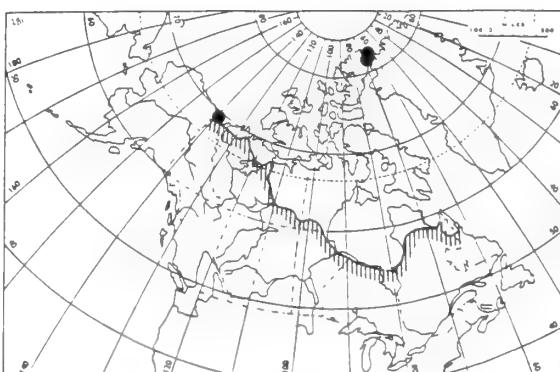
Frederiksen

POACEAE

Phytogeography: Arctic-alpine

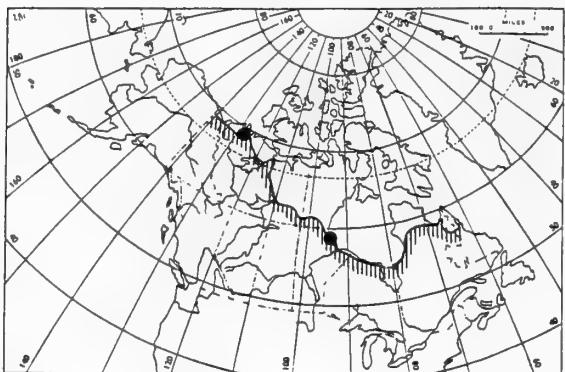
Canadian Arctic: wLow and High Arctic

Status: Rare in the Northwest Territories.



**Festuca vivipara glabra**

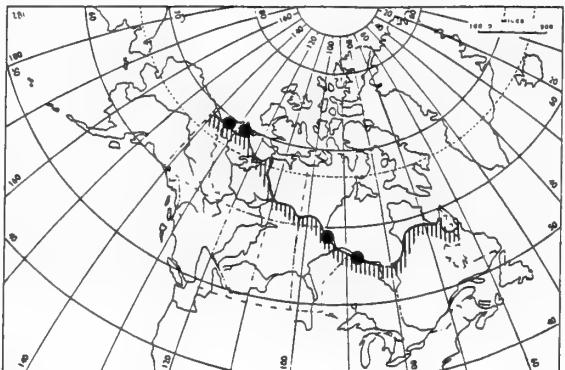
**Fragaria virginiana** P. Mill. ssp. **glauca**  
(S. Wats.) Staudt  
ROSACEAE  
Phytogeography: Boreal  
Canadian Arctic: Low Arctic



**Galium boreale var. intermedium** =  
**Galium boreale**

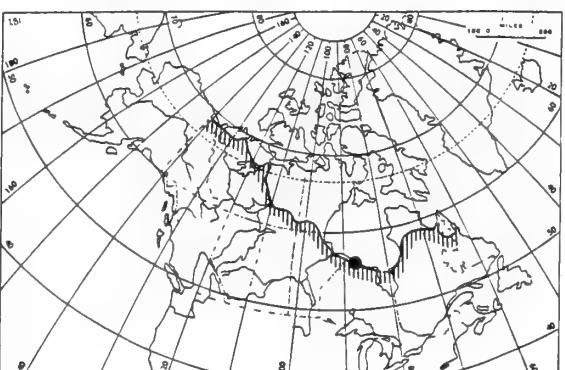
**Galium boreale** L.  
(*Galium boreale* var. *intermedium* DC.)  
RUBIACEAE  
Phytogeography: Boreal  
Canadian Arctic: Low Arctic  
Status: Rare in Nova Scotia.

**Fragaria virginiana glauca**



**Galium boreale**

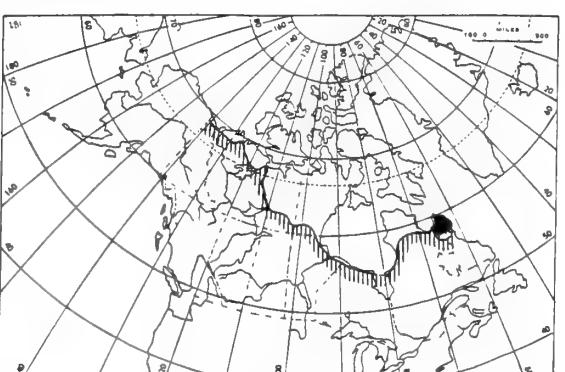
**Galium labradoricum** (Wieg.) Wieg.  
RUBIACEAE  
Phytogeography: Boreal  
Canadian Arctic: eLow Arctic  
Status: Rare in Nova Scotia and British Columbia



**Gentiana acuta** = **Gentianella amarella**  
ssp. **acuta**

**Galium labradoricum**

**Gentiana nivalis** L.  
GENTIANACEAE  
Phytogeography: Arctic-alpine  
Canadian Arctic: eLow Arctic  
Status: Rare in Canada.



**Gentiana raupii** = **Gentianopsis detonsa**  
ssp. **raupii**

**Gentiana nivalis**

**Gentiana richardsonii = Gentianopsis  
detonsa ssp. *detonsa***

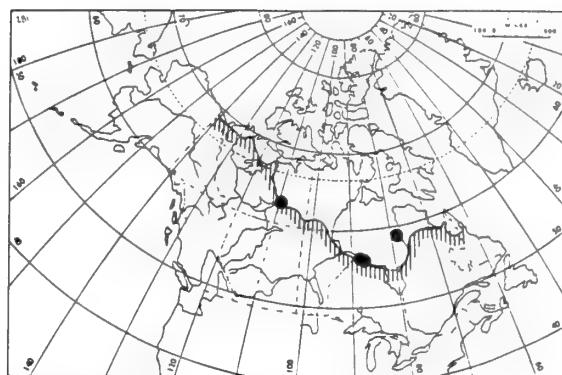
**Gentianella amarella** (L.) Boerner ssp.  
**acuta** (Michx.) J. Gillett  
(*Gentiana acuta* Michx.)

GENTIANACEAE

Phytogeography: Boreal

Canadian Arctic: Low Arctic

Status: Rare in New Brunswick.



**Gentianella amarella acuta**

**Gentianopsis *detonsa* (Rottb.) Ma ssp.  
*detonsa***

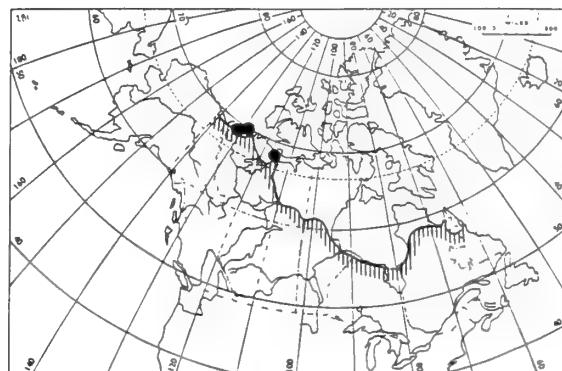
(*Gentiana richardsonii* Porsild)

GENTIANACEAE

Phytogeography: Arctic

Canadian Arctic: wLow Arctic

Status: Rare in the Northwest Territories  
and Canada.



**Gentianopsis *detonsa* *detonsa***

**Gentianopsis *detonsa* (Rottb.) Ma ssp.  
*raupii* (Porsild) A. & D. Love**

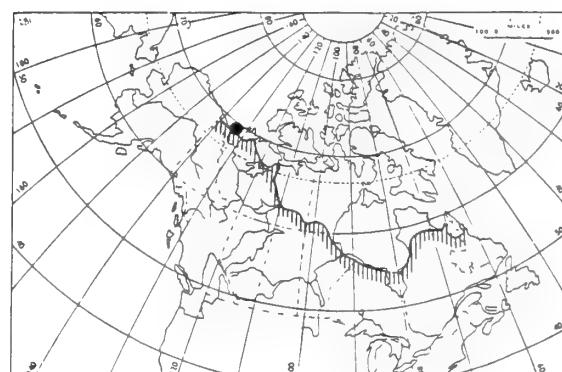
(*Gentiana raupii* Porsild)

GENTIANACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: wLow Arctic

Comment: Endemic



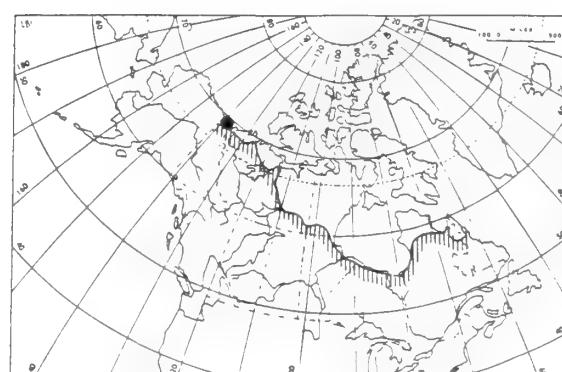
**Gentianopsis *detonsa* *raupii***

**Geum glaciale** J.E. Adams ex Fisch.

ROSACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: wLow Arctic



**Geum glaciale**

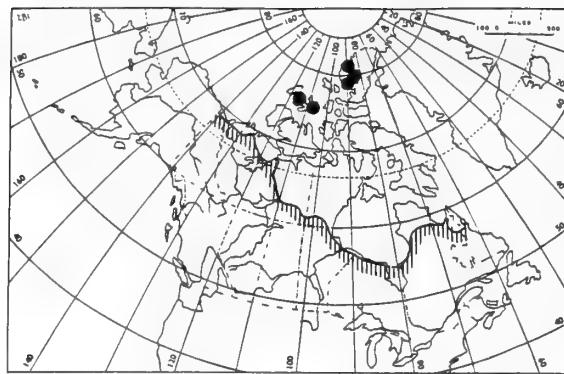
**Geum rossii** (R. Br.) Ser.

ROSACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: High Arctic

Comment: Disjunct, widespread rare, highly localized.



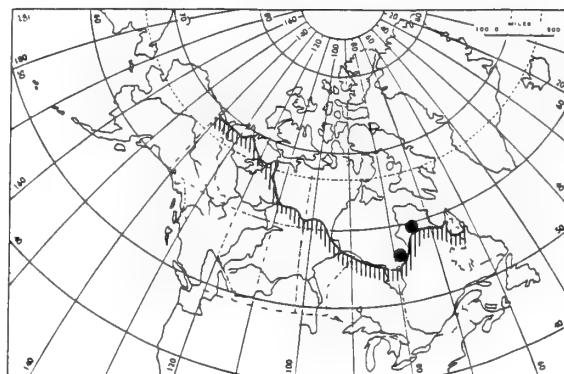
**Geum rossii**

**Gymnocarpium disjunctum** (Rupr.) Ching  
(*Dryopteris disjuncta* (Rupr.) Ching)

THELYPTERIDACEAE

Phytogeography: Boreal

Canadian Arctic: eLow Arctic



**Gymnocarpium disjunctum**

**Habenaria straminea** = *Platanthera*  
*albida* var. *straminea*

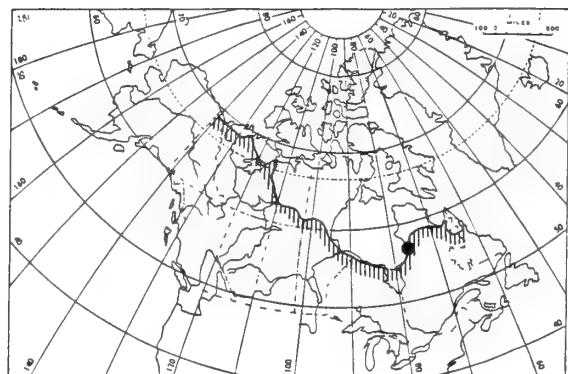
**Habenaria viridis** var. *bracteata* =  
*Coeloglossum viride* var. *virescens*

**Heracleum lanatum** Michx.

APIACEAE

Phytogeography: Boreal

Canadian Arctic: eLow Arctic



**Heracleum lanatum**

**Juncus alpinus** ssp. *nodulosus* = *Juncus*  
*alpinoarticulatus* ssp. *nodulosus*

**Juncus alpinoarticulatus** Chaix

ssp. **nodulosus** (Wahlenb.) Hamet-Ahti

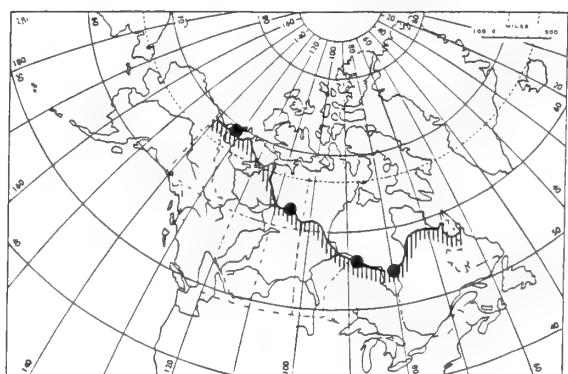
(*Juncus alpinus* ssp. *nodulosus*

(Wahlenb.) Lindm.)

JUNCACEAE

Phytogeography: Boreal

Canadian Arctic: Low Arctic



**Juncus alpinoarticulatus nodulosus**

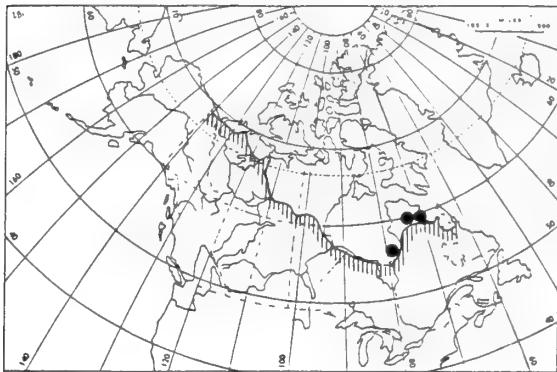
***Juncus subtilis* E. Mey.**

JUNCACEAE

Phytogeography: Boreal

Canadian Arctic: eLow Arctic

Status: Rare in Newfoundland and New Brunswick.



***Juncus subtilis***

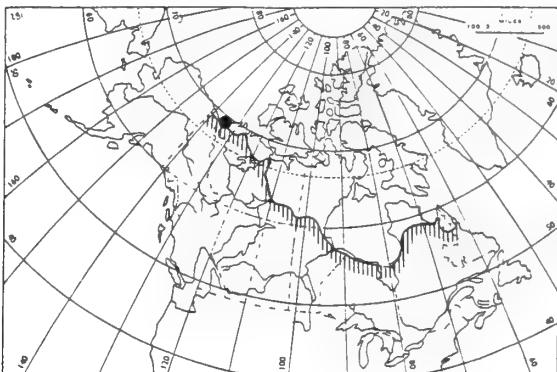
***Koeleria asiatica* Domin**

POACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: wLow Arctic

Status: Rare in the Yukon Territory, the Northwest Territories, and Canada.



***Koeleria asiatica***

***Lagotis minor* (Willd.) Standl.**

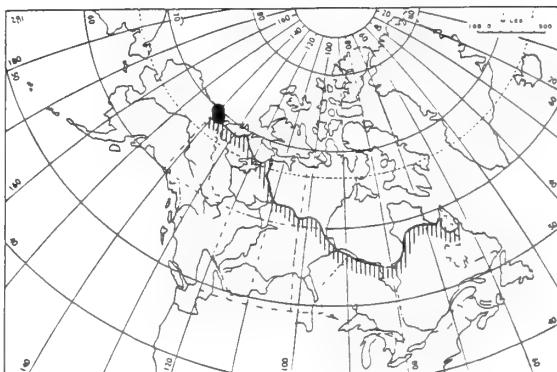
(*Lagotis stelleri* (Cham. & Schlecht.)

Raup)

SCROPHULARIACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: wLow Arctic



**Lagotis stelleri = Lagotis minor**

***Lagotis minor***

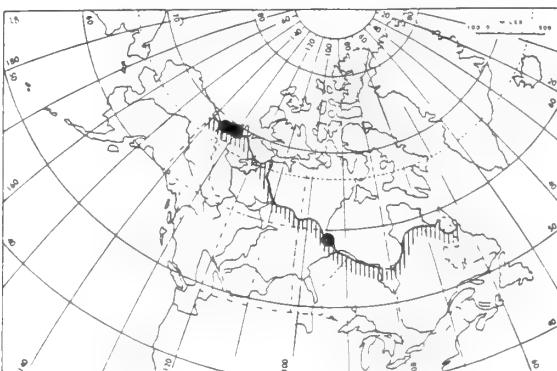
***Lemna trisulca* L.**

LEMNACEAE

Phytogeography: Aquatic

Canadian Arctic: Low Arctic

Status: Rare in Prince Edward Island and New Brunswick.



***Lemna trisulca***

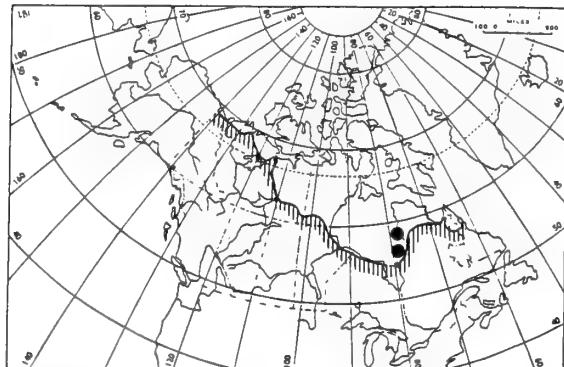
**Ligusticum scoticum L. var. scoticum**

APIACEAE

Phytogeography: Coastal

Canadian Arctic: eLow Arctic

Status: Rare in Ontario.



**Ligusticum scoticum scoticum**

**Limosella aquatica L.**

SCROPHULARIACEAE

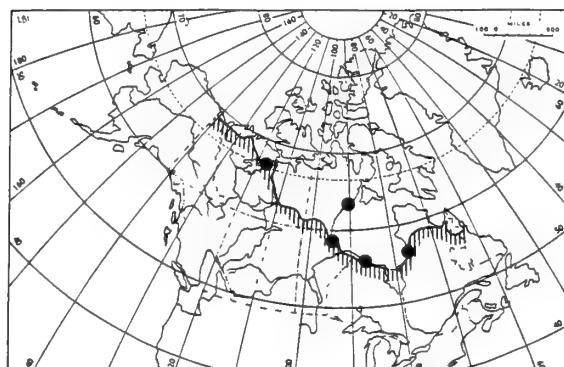
Phytogeography: Aquatic

Canadian Arctic: Low Arctic

Status: Rare in the Yukon Territory, the

Northwest Territories, Newfoundland,

Ontario, and British Columbia.



**Limosella aquatica**

**Linum lewisii Pursh ssp. lepagei (Boivin)**

Mosquin

LINACEAE

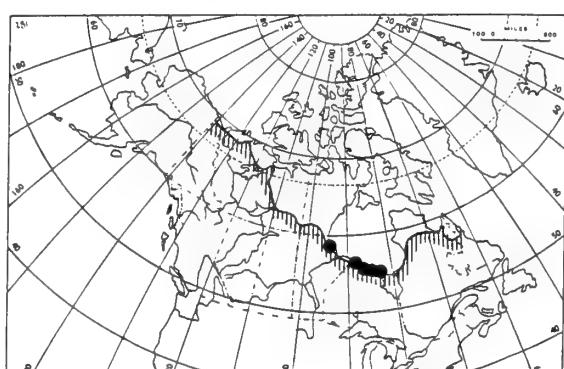
Phytogeography: Arctic

Canadian Arctic: eLow Arctic

Status: Rare in Ontario, Manitoba, and

Canada.

Comment: Endemic



**Linum lewisii lepagei**

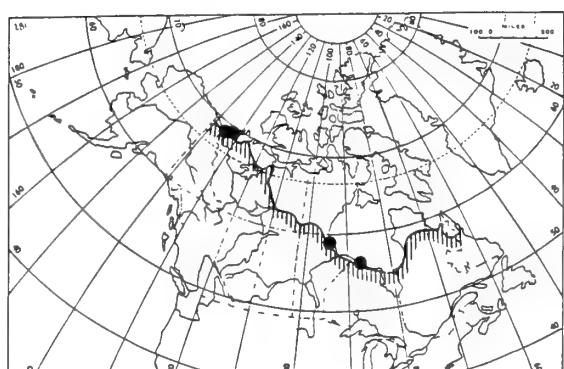
**Listera borealis Morong**

ORCHIDACEAE

Phytogeography: Boreal

Canadian Arctic: Low Arctic

Status: Rare in Newfoundland, Ontario, and Saskatchewan.



**Listera borealis**

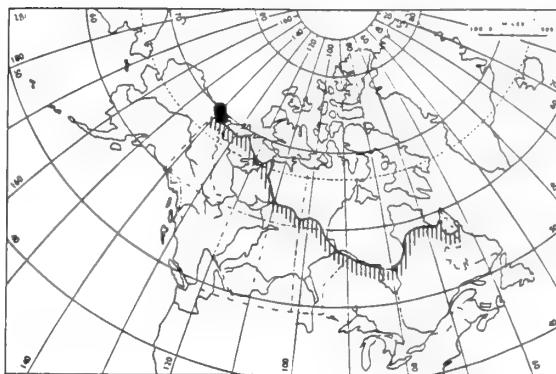
**Lloydia serotina** (L.) Salisb. ex Reichenb.

LILIACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: wLow Arctic

Status: Rare in British Columbia.



**Lloydia serotina**

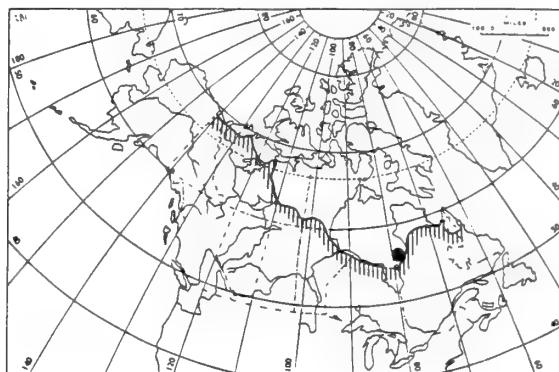
**Lonicera villosa** (Michx.) J.A. Schultes

var. **calvescens** (Fern. & Wieg.) Fern.

CAPRIFOLIACEAE

Phytogeography: Boreal

Canadian Arctic: eLow Arctic



**Lonicera villosa calvescens**

**Lychnis alpina** L. var. **alpina**

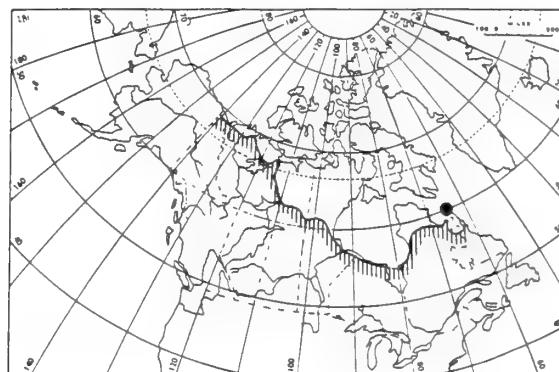
(Viscaria alpina (L.) G. Don)

CARYOPHYLLACEAE

Phytogeography: Arctic

Canadian Arctic: eLow Arctic

Status: Rare in the Northwest Territories.



**Lychnis alpina alpina**

**Lysimachia thyrsiflora** L.

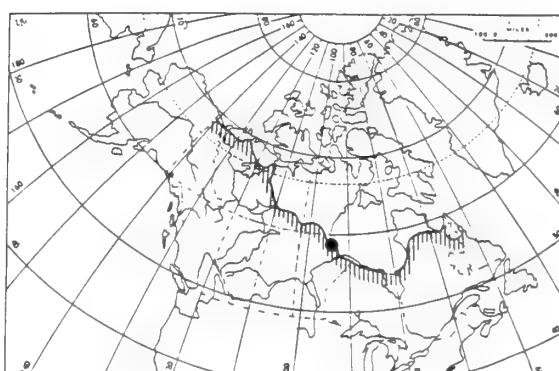
PRIMULACEAE

Phytogeography: Boreal

Canadian Arctic: eLow Arctic

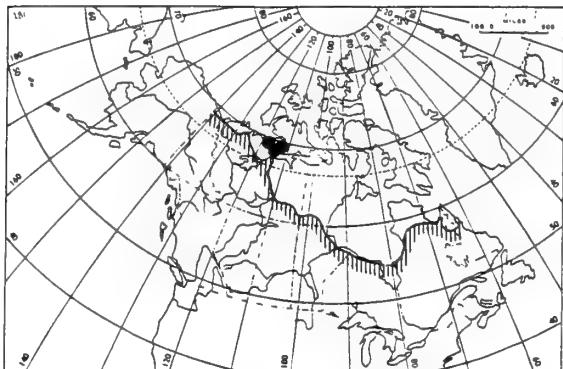
Status: Rare in Newfoundland.

**Melandrium taylorae** = **Silene taylorae**



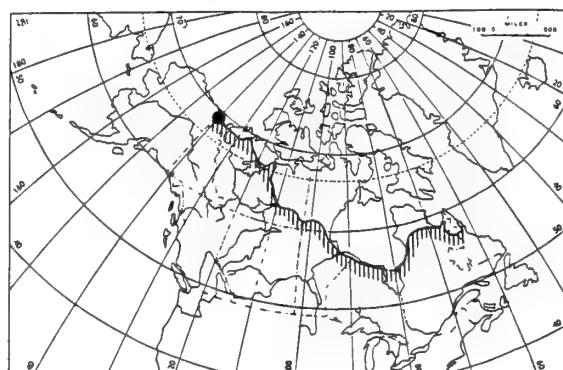
**Lysimachia thyrsiflora**

**Mertensia drummondii** (Lehm.) G. Don  
BORAGINACEAE  
Phytogeography: Arctic  
Canadian Arctic: wLow Arctic  
Status: Rare in the Northwest Territories and Canada.  
Comment: Endemic



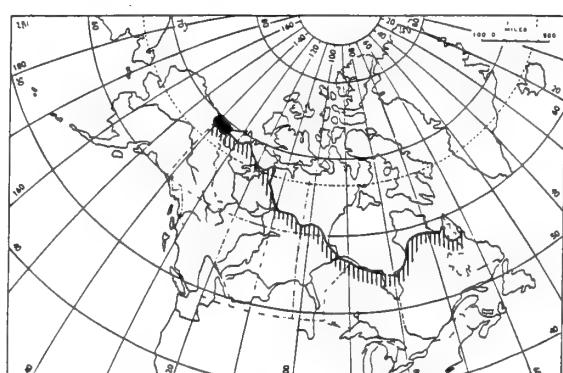
**Mertensia drummondii**

**Mertensia paniculata** (Ait.) G. Don  
var. **paniculata**  
BORAGINACEAE  
Phytogeography: Boreal  
Canadian Arctic: wLow Arctic



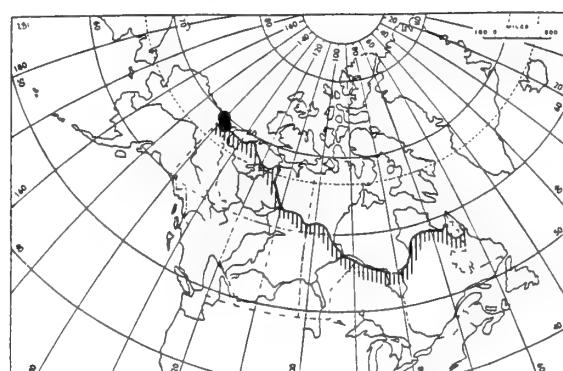
**Mertensia paniculata paniculata**

**Minuartia arctica** (Stev. ex Ser.) Graebn.  
CARYOPHYLLACEAE  
Phytogeography: Arctic-alpine  
Canadian Arctic: wLow Arctic



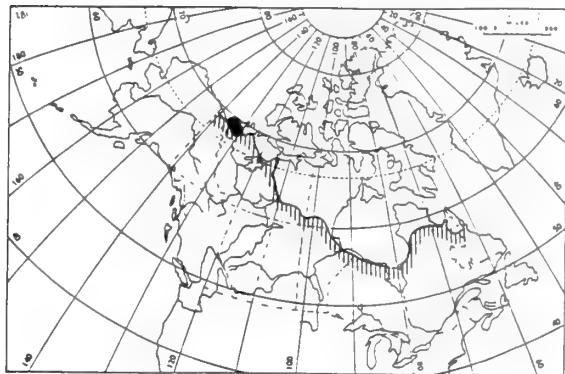
**Minuartia arctica**

**Minuartia macrocarpa** (Pursh) Ostenf.  
CARYOPHYLLACEAE  
Phytogeography: Arctic-alpine  
Canadian Arctic: wLow Arctic  
Status: Rare in the Northwest Territories.



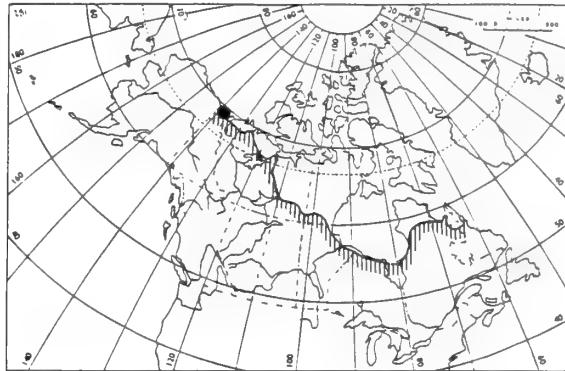
**Minuartia macrocarpa**

**Minuartia obtusiloba** (Rydb.) House  
CARYOPHYLLACEAE  
Phytogeography: Arctic-alpine  
Canadian Arctic: wLow Arctic



**Minuartia obtusiloba**

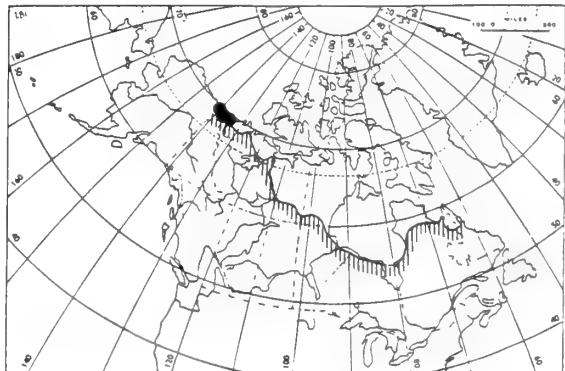
**Minuartia yukonensis** Hultén  
CARYOPHYLLACEAE  
Phytogeography: Arctic-alpine  
Canadian Arctic: wLow Arctic  
Status: Rare in the Northwest Territories.



**Minuartia yukonensis**

**Myosotis alpestris** ssp. *asiatica* =  
**Myosotis asiatica**

**Myosotis asiatica** (Vesterg.) Schischkin  
& Sergievskaja  
(*Myosotis alpestris* ssp. *asiatica*  
Vesterg.)  
BORAGINACEAE  
Phytogeography: Arctic-alpine  
Canadian Arctic: wLow Arctic

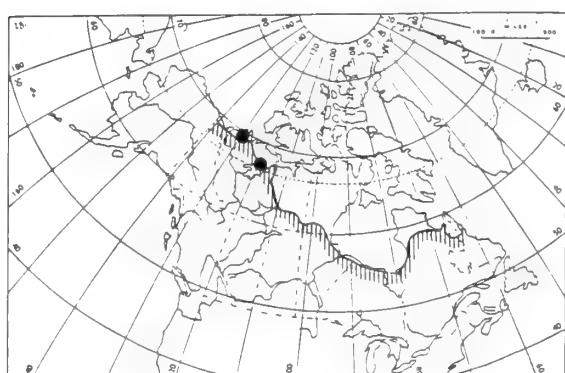


**Myosotis asiatica**

**Myriophyllum verticillatum** var.  
*pectinatum* = **Myriophyllum verticillatum**

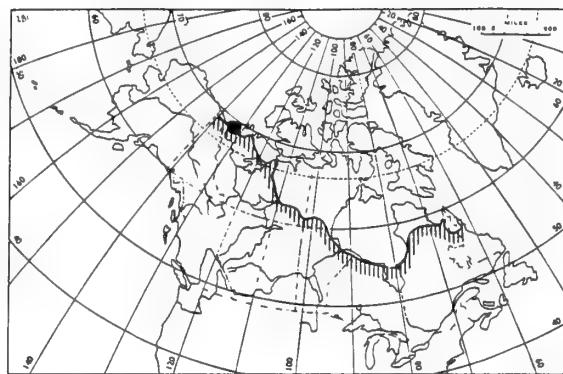
**Myriophyllum verticillatum** var.  
*pinnatifidum* = **Myriophyllum**  
**verticillatum**

**Myriophyllum alterniflorum** DC.  
HALORAGACEAE  
Phytogeography: Aquatic  
Canadian Arctic: wLow Arctic  
Status: Rare in the Northwest Territories  
and Manitoba.



**Myriophyllum alterniflorum**

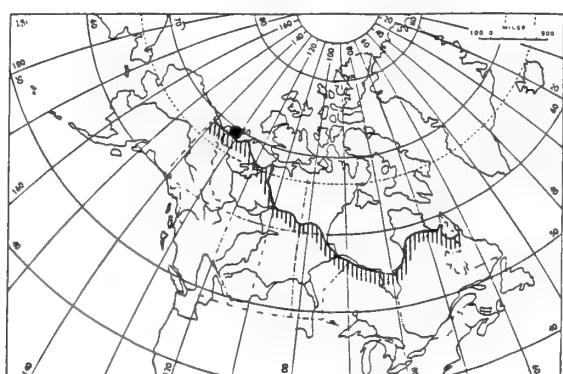
**Myriophyllum verticillatum** L.  
 (Myriophyllum verticillatum var.  
 pectinatum Wallr., Myriophyllum  
 verticillatum var. pinnatifidum Wallr.)  
 HALORAGACEAE  
 Phytogeography: Aquatic  
 Canadian Arctic: wLow Arctic  
 Status: Rare in the Yukon Territory,  
 Newfoundland, Prince Edward Island,  
 and Saskatchewan.



**Nuphar polysepalum = Nuphar lutea  
 ssp. polysepala**

**Nuphar lutea** (L.) Sibthorp & Sm.  
 ssp. **polysepala** (Engelm.) E.O. Beal  
 (Nuphar polysepalum Engelm.)  
 NYMPHAEACEAE  
 Phytogeography: Boreal  
 Canadian Arctic: wLow Arctic  
 Status: Rare in the Northwest Territories.

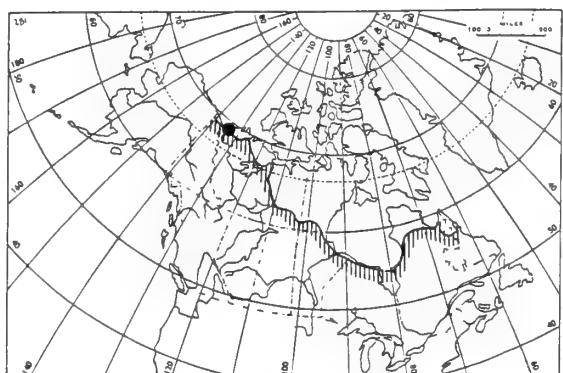
**Myriophyllum verticillatum**



**Orchis rotundifolia = Amerorchis  
 rotundifolia**

**Nuphar lutea polysepala**

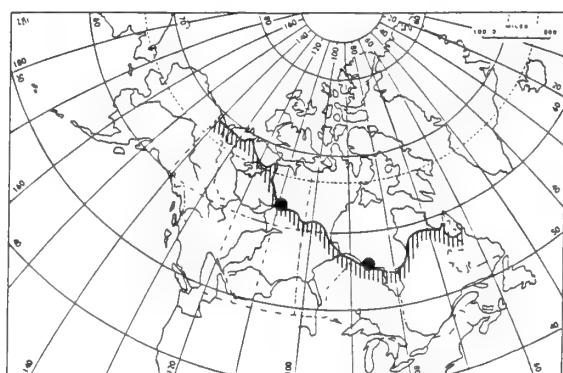
**Oxytropis glutinosa = Oxytropis viscosa  
 var. subsucculenta**



**Oxytropis nigrescens** (Pallas) Fisch. ex DC. var. **nigrescens**  
 (Oxytropis nigrescens ssp. pygmaea  
 (Fern.) Hultén, Oxytropis nigrescens ssp.  
 bryophila (Greene) Hultén)  
 FABACEAE  
 Phytogeography: Arctic-alpine  
 Canadian Arctic: wLow Arctic

**Oxytropis nigrescens nigrescens**

**Oxytropis nigrescens ssp. bryophila =  
 Oxytropis nigrescens var. nigrescens**

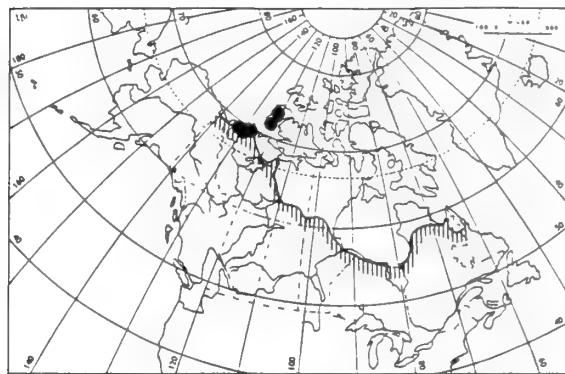


**Oxytropis nigrescens ssp. pygmaea =  
 Oxytropis nigrescens var. nigrescens**

**Oxytropis splendens**

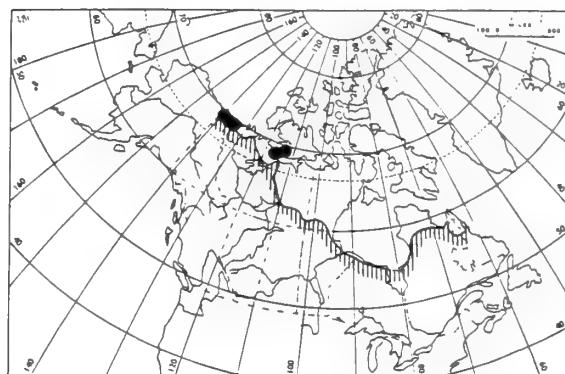
**Oxytropis splendens** Dougl. ex Hook.  
 FABACEAE  
 Phytogeography: Boreal  
 Canadian Arctic: Low Arctic

**Oxytropis viscosa** Nutt. var. **subsucculenta**  
 (Hook.) Barneby  
 (*Oxytropis glutinosa* Porsild)  
 FABACEAE  
 Phytogeography: Arctic-alpine  
 Canadian Arctic: wLow and wMid Arctic  
 Status: Rare in British Columbia.



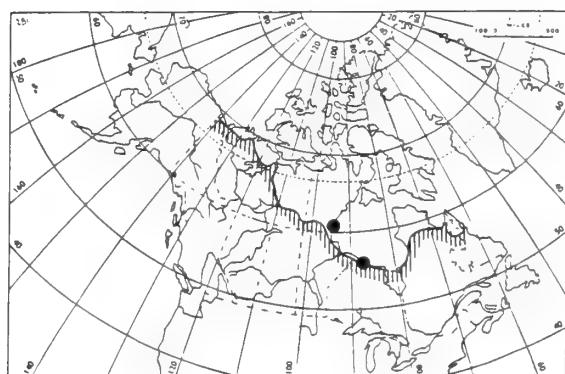
**Oxytropis viscosa subsucculenta**

**Parrya nudicaulis** (L.) Boiss.  
 BRASSICACEAE  
 Phytogeography: Arctic-alpine  
 Canadian Arctic: wLow Arctic  
 Status: Rare in British Columbia.



**Parrya nudicaulis**

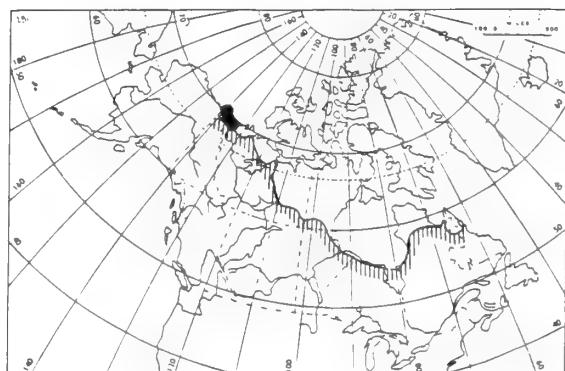
**Pedicularis macrodonta** Richards.  
 (*Pedicularis parviflora* sensu Porsild & Cody, 1980)  
 SCROPHULARIACEAE  
 Phytogeography: Boreal  
 Canadian Arctic: eLow Arctic  
 Status: Rare in the Yukon Territory, the Northwest Territories, Manitoba, Saskatchewan, and British Columbia.



**Pedicularis macrodonta**

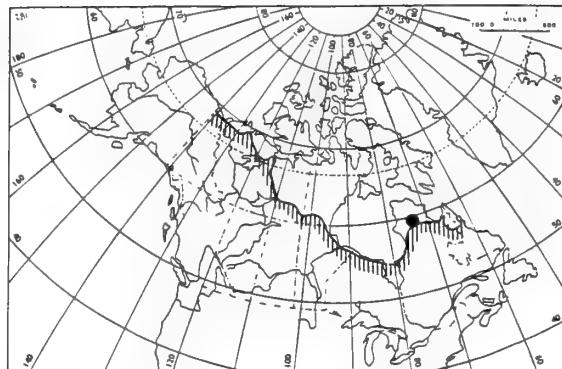
**Pedicularis parviflora** = **Pedicularis macrodonta**

**Pedicularis verticillata** L.  
 SCROPHULARIACEAE  
 Phytogeography: Boreal  
 Canadian Arctic: wLow Arctic  
 Status: Rare in British Columbia.



**Pedicularis verticillata**

**Phegopteris connectilis** (Michx.) Watt  
 (Dryopteris phegopteris (L.) C. Christens.,  
 Thelypteris phegopteris (L.) Slossen)  
**ASPLENIACEAE**  
 Phytogeography: Boreal  
 Canadian Arctic: eLow Arctic  
 Status: Rare in the Yukon Territory, the  
 Northwest Territories, Manitoba,  
 Saskatchewan, and Alberta.



### **Phegopteris connectilis**

**Phleum alpinum** L.  
 (Phleum commutatum Gaudin, Phleum  
 commutatum var. americanum (Fourn.)  
 Hultén)  
**POACEAE**  
 Phytogeography: Arctic-alpine  
 Canadian Arctic: eLow Arctic  
 Status: Rare in Newfoundland, Nova  
 Scotia, New Brunswick, Ontario, and  
 Saskatchewan.

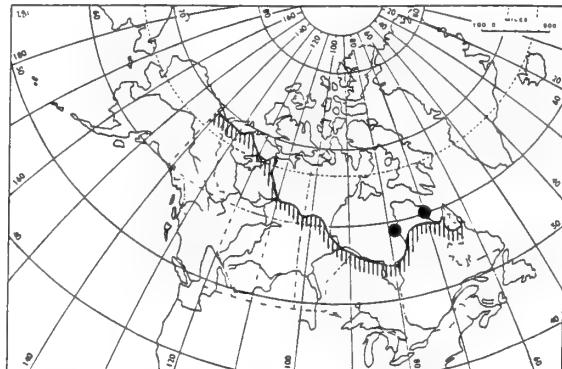
### **Phleum commutatum = Phleum alpinum**

### **Phleum commutatum var. americanum = Phleum alpinum**

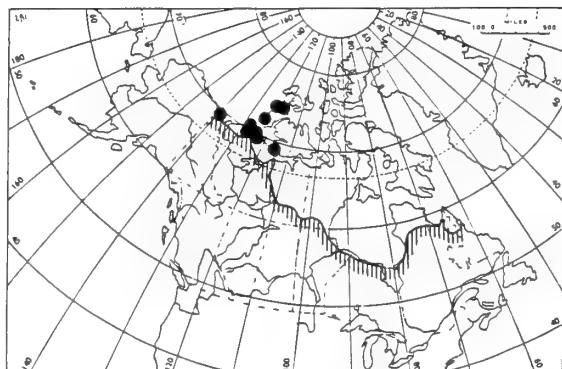
**Phlox richardsonii** Hook. ssp. **richardsonii**  
 (Phlox sibirica ssp. richardsonii (Hook.)  
 Hultén)  
**POLEMONIACEAE**  
 Phytogeography: Arctic-alpine  
 Canadian Arctic: wLow and High Arctic  
 Status: Rare in the Northwest Territories.  
 Comment: Endemic

### **Phlox sibirica** ssp. **richardsonii** = **Phlox** **richardsonii** ssp. **richardsonii**

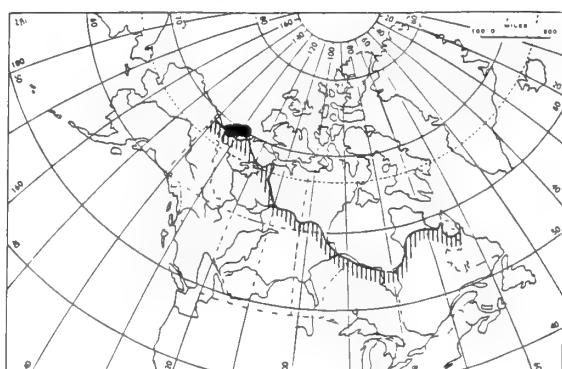
**Plantago eriopoda** Torr.  
**PLANTAGINACEAE**  
 Phytogeography: Coastal  
 Canadian Arctic: wLow Arctic  
 Status: Rare in British Columbia.



### **Phleum alpinum**

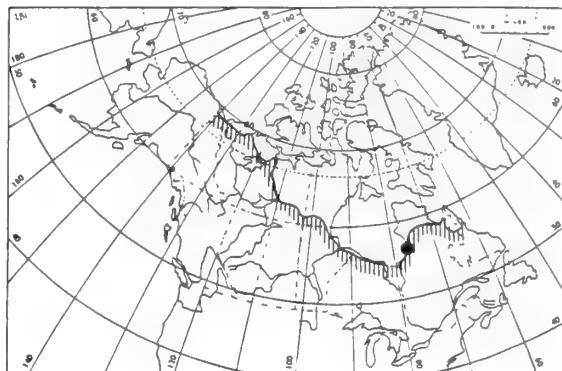


### **Phlox richardsonii richardsonii**



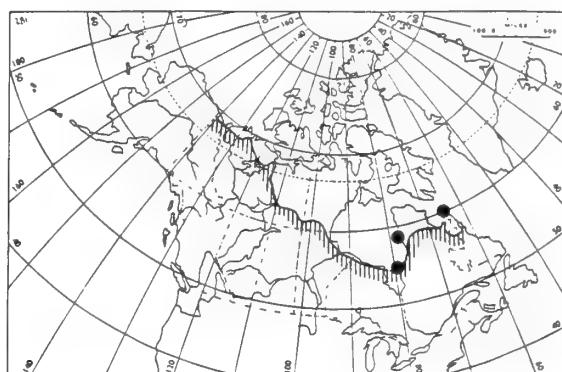
### **Plantago eriopoda**

**Platanthera albida** (L.) Lindl. var.  
**straminea** (Fern.) Luer  
(Habenaria straminea Fern.)  
ORCHIDACEAE  
Phytogeography: Arctic  
Canadian Arctic: eLow Arctic  
Status: Rare in Newfoundland, Quebec,  
and Canada.



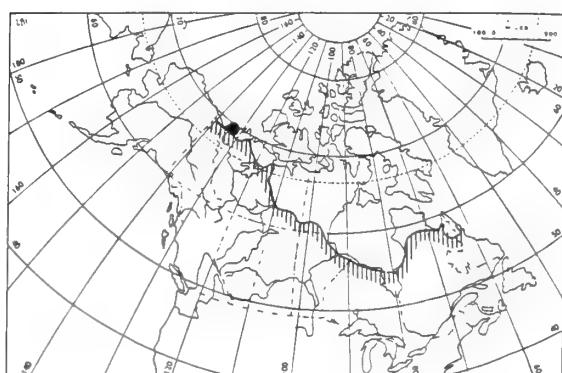
**Platanthera albida straminea**

**Poa eminens** J. Presl  
POACEAE  
Phytogeography: Coastal  
Canadian Arctic: eLow Arctic  
Status: Rare in Newfoundland.



**Poa eminens**

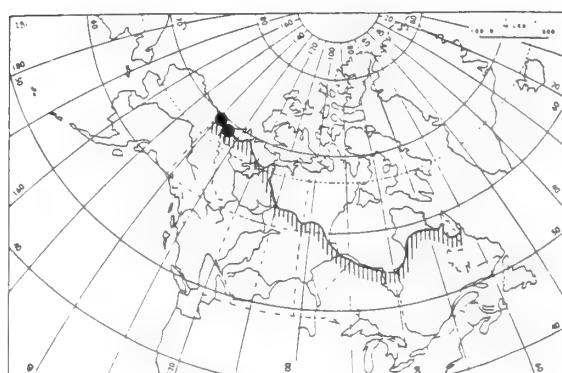
**Poa lanata** Scribn. & Merr.  
POACEAE  
Phytogeography: Arctic-alpine  
Canadian Arctic: wLow Arctic  
Status: Rare in Saskatchewan.



**Poa lanata**

**Poa leptocoma** Trin. ssp. **paucispicula**  
(Scribn. & Merr.) Tzvelev  
(Poa paucispicula Scribn. & Merr.)  
POACEAE  
Phytogeography: Arctic-alpine  
Canadian Arctic: wLow Arctic

**Poa paucispicula** = **Poa leptocoma**  
ssp. **paucispicula**



**Poa leptocoma paucispicula**

**Polygonum alaskanum = Polygonum alpinum**

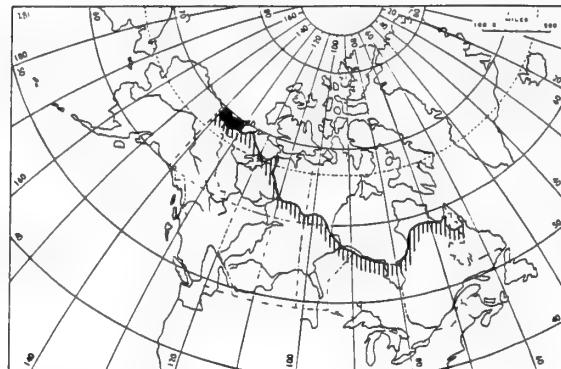
**Polygonum alpinum** All.

(*Polygonum alaskanum* W. Wight ex Hultén)

POLYGONACEAE

Phytogeography: Boreal

Canadian Arctic: wLow Arctic



**Polygonum amphibium** ssp.  
*laevimarginatum* = *Polygonum amphibium* var. *stipulaceum*

**Polygonum amphibium** L. var.  
*stipulaceum* Coleman

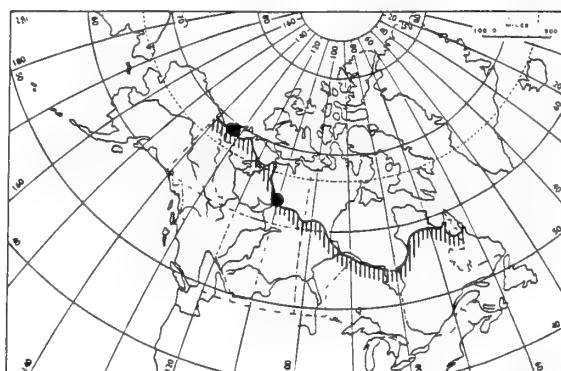
(*Polygonum amphibium* L. ssp.  
*laevimarginatum* Hultén)

POLYGONACEAE

Phytogeography: Boreal

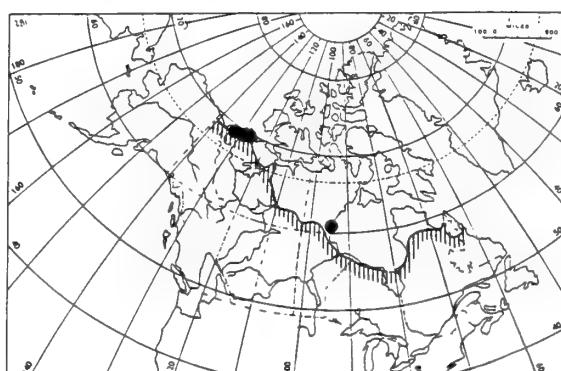
Canadian Arctic: wLow Arctic

**Polygonum alpinum**



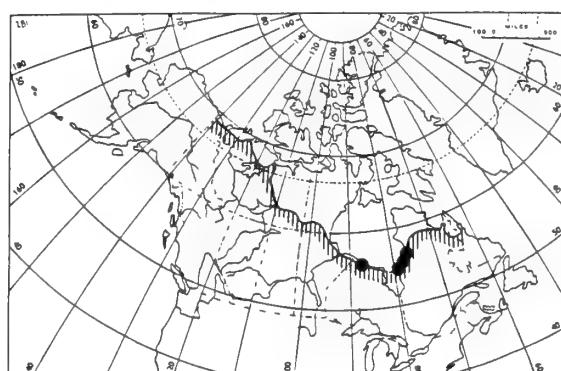
**Polygonum amphibium stipulaceum**

**Polygonum caurianum** B.L. Robins.  
ssp. *caurianum*  
POLYGONACEAE  
Phytogeography: Boreal  
Canadian Arctic: Low Arctic  
Status: Rare in the Yukon Territory and Canada.



**Polygonum caurianum caurianum**

**Polygonum caurianum** B.L. Robins.  
ssp. *hudsonianum* Wolf & McNeill  
POLYGONACEAE  
Phytogeography: Coastal  
Canadian Arctic: eLow Arctic  
Status: Rare in the Northwest Territories.



**Polygonum caurianum hudsonianum**

***Polypodium virginianum* L.**

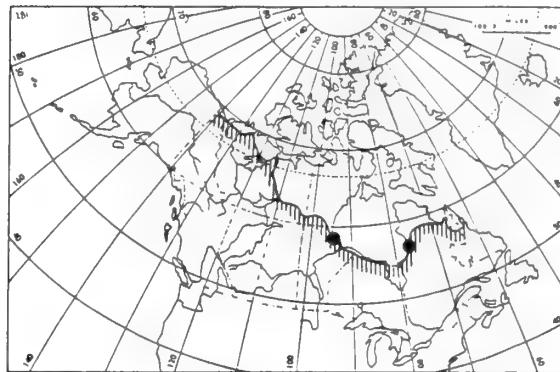
(*Polypodium vulgare* L. ssp.  
*virginianum* (L.) Hultén)

POLYPODIACEAE

Phytogeography: Boreal

Canadian Arctic: eLow Arctic

Status: Rare in the Yukon Territory, Prince Edward Island, Alberta, and British Columbia.



***Polypodium vulgare* ssp. *virginianum* =  
*Polypodium virginianum***

***Polystichum lonchitis* (L.) Roth**

DRYOPTERIDACEAE

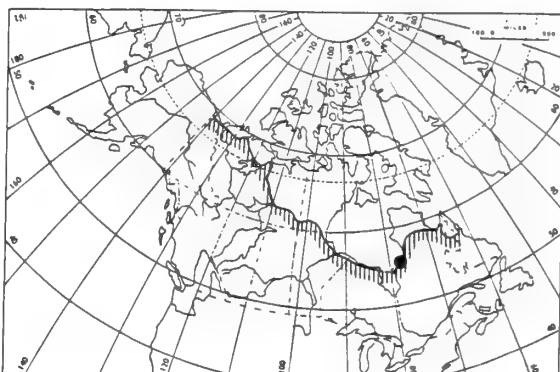
Phytogeography: Boreal

Canadian Arctic: eLow Arctic

Status: Rare in the Yukon Territory, Nova Scotia, and Quebec.

Comment: Disjunct

***Polypodium virginianum***



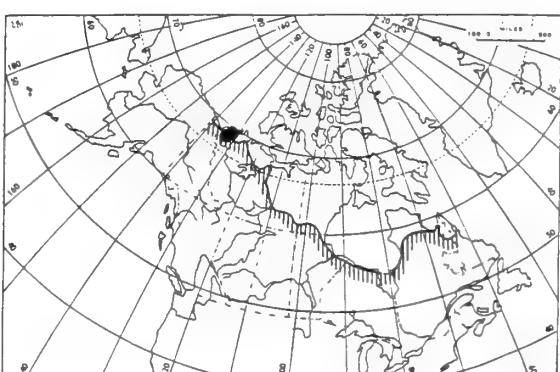
***Populus tremuloides* Michx.**

SALICACEAE

Phytogeography: Boreal

Canadian Arctic: wLow Arctic

***Polystichum lonchitis***



***Potamogeton friesii* Rupr.**

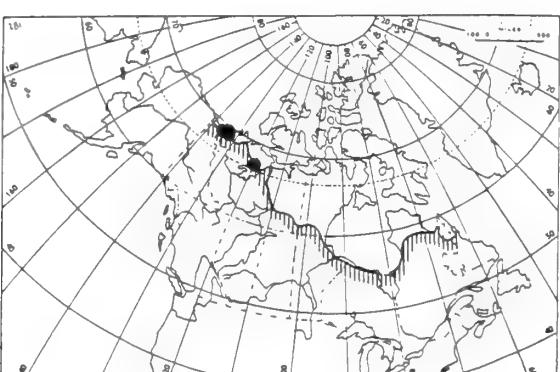
POTAMOGETONACEAE

Phytogeography: Aquatic

Canadian Arctic: wLow Arctic

Status: Rare in Nova Scotia and New Brunswick.

***Populus tremuloides***



***Potamogeton friesii***

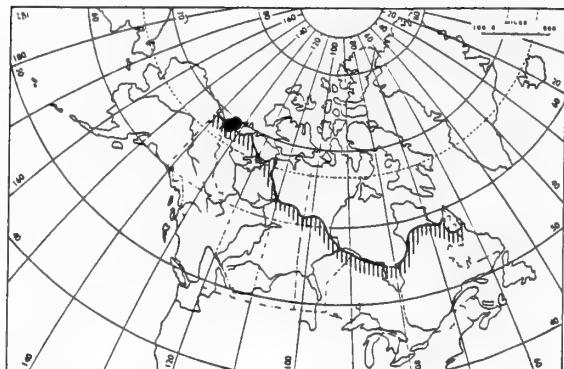
**Potamogeton pectinatus L.**

POTAMOGETONACEAE

Phytogeography: Aquatic

Canadian Arctic: wLow Arctic

Status: Rare in Newfoundland and Prince Edward Island.



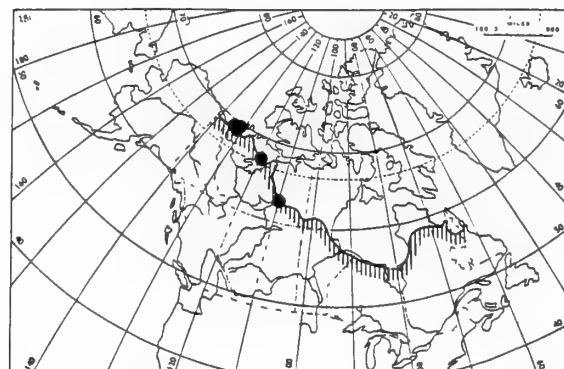
**Potamogeton pectinatus**

**Potamogeton richardsonii (Benn.) Rydb.**

POTAMOGETONACEAE

Phytogeography: Aquatic

Canadian Arctic: Low Arctic



**Potamogeton richardsonii**

**Potamogeton strictifolius var. rutiloides =  
Potamogeton strictifolius**

**Potamogeton strictifolius Benn.**

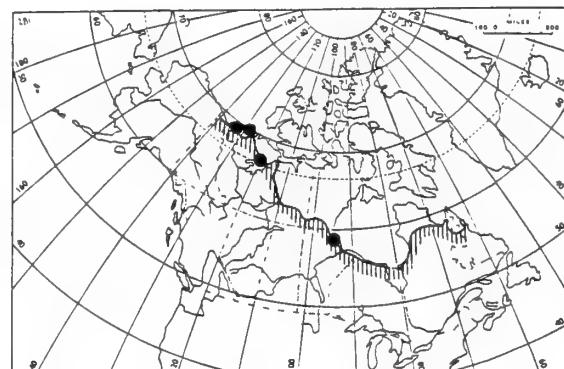
(*Potamogeton strictifolius* var. *rutiloides*  
Fern.)

POTAMOGETONACEAE

Phytogeography: Aquatic

Canadian Arctic: Low Arctic

Status: Rare in Newfoundland, Manitoba,  
Saskatchewan, and British Columbia.



**Potamogeton strictifolius**

**Potamogeton zosterifolius ssp.**

*zosteriformis* = *Potamogeton*  
*zosteriformis*

**Potamogeton zosteriformis Fern.**

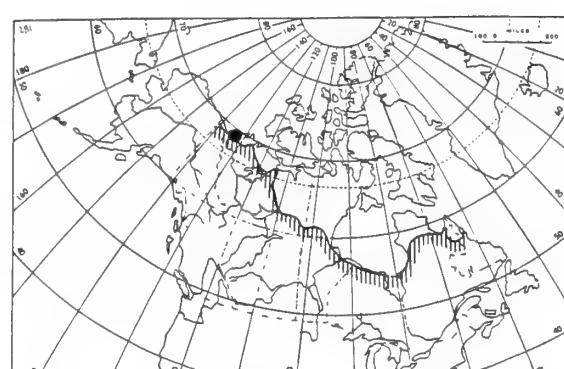
(*Potamogeton zosterifolius* Schum. ssp.  
*zosteriformis* (Fern.) Hultén)

POTAMOGETONACEAE

Phytogeography: Aquatic

Canadian Arctic: wLow Arctic

Status: Rare in Newfoundland and Nova Scotia.



**Potamogeton zosteriformis**

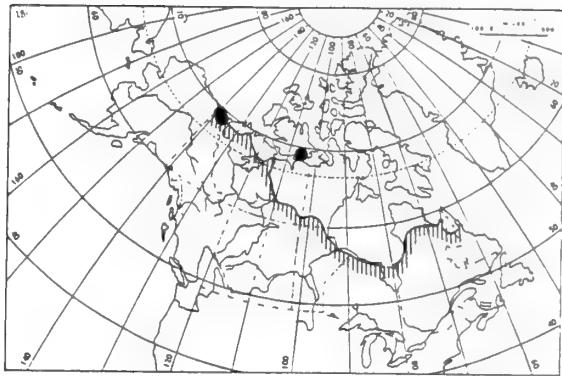
**Potentilla biflora** Willd. ex Schlecht.

ROSACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: wLow Arctic

Status: Rare in British Columbia.



**Potentilla biflora**

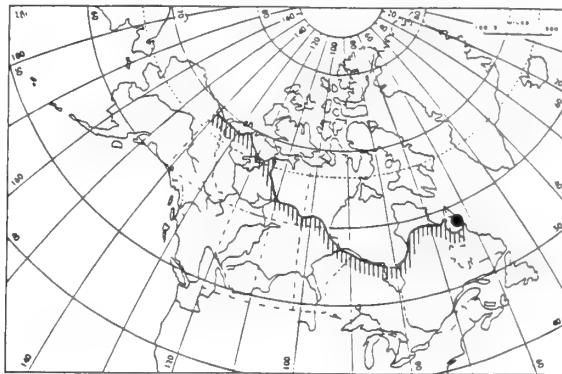
**Potentilla diversifolia** Lehm. var.

**ranunculus** (Lange) Boivin

ROSACEAE

Phytogeography: Arctic

Canadian Arctic: eLow Arctic



**Potentilla diversifolia ranunculus**

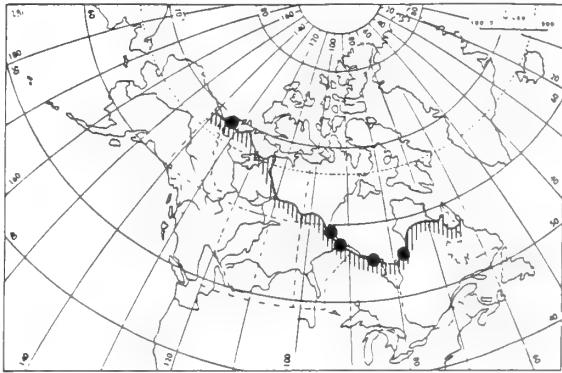
**Potentilla multifida** L.

ROSACEAE

Phytogeography: Boreal

Canadian Arctic: Low Arctic

Status: Rare in Quebec, Ontario, Saskatchewan, Alberta, and British Columbia.



**Potentilla multifida**

**Potentilla pensylvanica** L. var. **pectinata**  
(Raf.) Boivin

(*Potentilla pensylvanica* var. *litoralis*

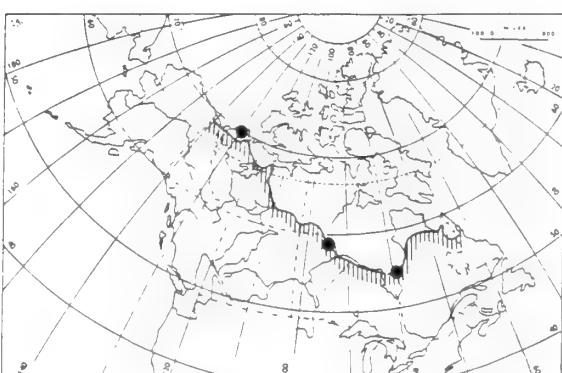
(Rydb.) Boivin)

ROSACEAE

Phytogeography: Boreal

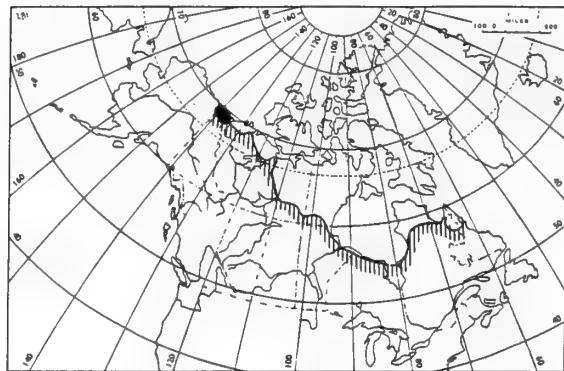
Canadian Arctic: Low Arctic

Status: Rare in Newfoundland, Nova Scotia, and Manitoba.



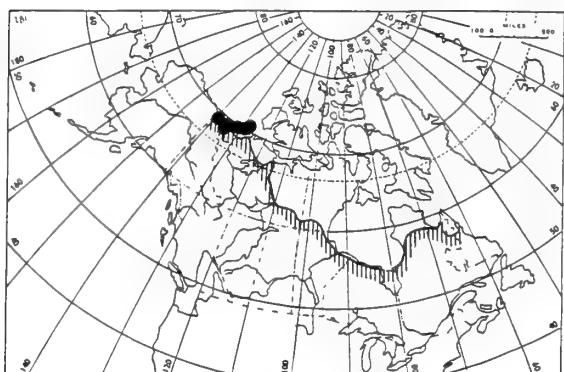
**Potentilla pensylvanica pectinata**

**Potentilla uniflora** Ledeb.  
ROSACEAE  
Phytogeography: Arctic-alpine  
Canadian Arctic: wLow Arctic



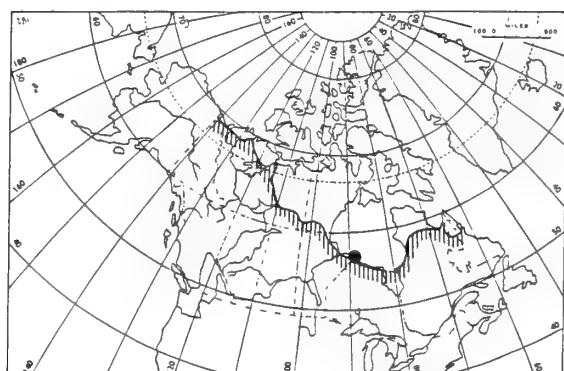
**Potentilla uniflora**

**Primula borealis** Duby  
PRIMULACEAE  
Phytogeography: Coastal  
Canadian Arctic: wLow Arctic



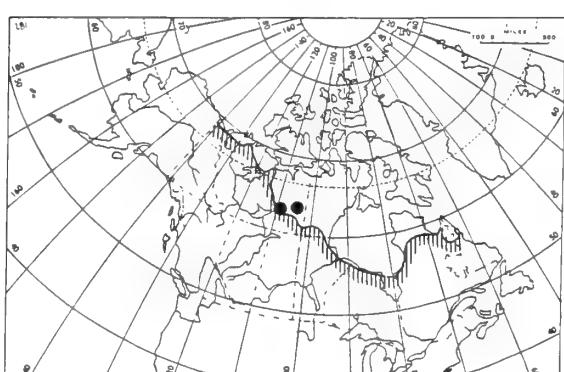
**Primula borealis**

**Primula incana** M.E. Jones  
PRIMULACEAE  
Phytogeography: Boreal  
Canadian Arctic: eLow Arctic  
Status: Rare in the Yukon Territory.



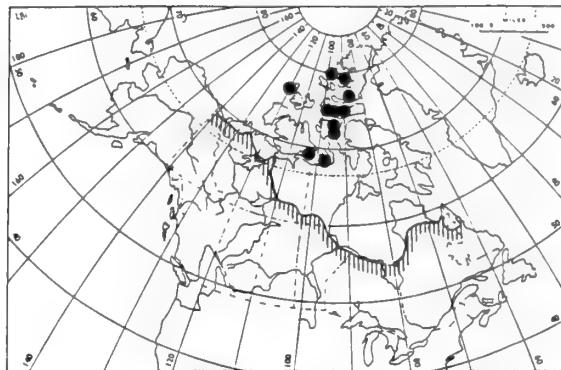
**Primula incana**

**Primula mistassinica** Michx.  
(*Primula mistassinica* var. *macropoda*  
(Fern.) Boivin)  
PRIMULACEAE  
Phytogeography: Boreal  
Canadian Arctic: wLow Arctic  
Status: Rare in the Yukon Territory,  
Nova Scotia, New Brunswick,  
Saskatchewan, and British Columbia.



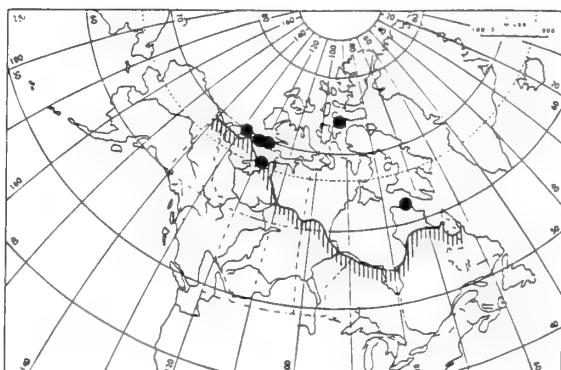
**Primula mistassinica**

**Puccinellia bruggemannii** Sørensen  
POACEAE  
Phytogeography: Arctic  
Canadian Arctic: Mid and High Arctic  
Status: Rare in the Northwest Territories and Canada.  
Comment: Endemic, widespread rare, ephemeral and eroding habitat.



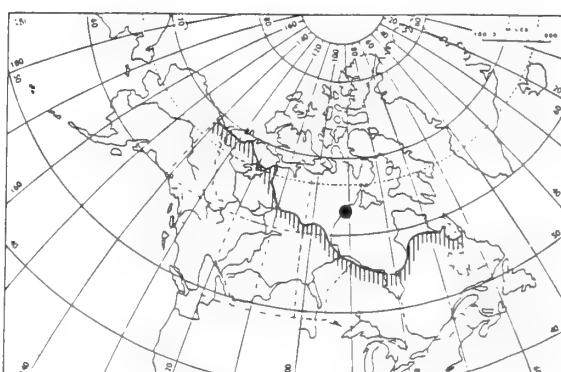
**Puccinellia bruggemannii**

**Puccinellia deschampsoides** Sørensen  
POACEAE  
Phytogeography: Arctic  
Canadian Arctic: Low and Mid Arctic  
Status: Rare in the Yukon Territory and Canada.  
Comment: Endemic



**Puccinellia deschampsoides**

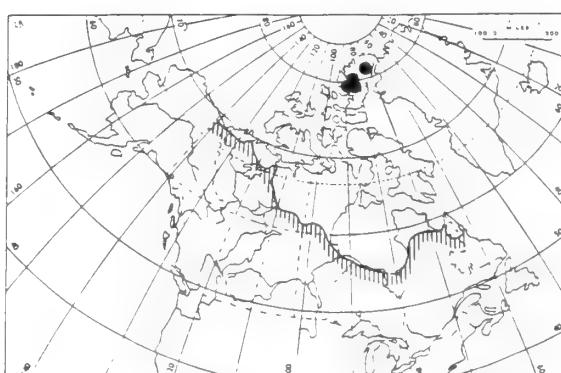
**Puccinellia kurilensis** (Takeda) Honda  
(*Puccinellia pumila* (Vasey) A.S. Hitchc.)  
POACEAE  
Phytogeography: Coastal  
Canadian Arctic: eLow Arctic  
Status: Rare in the Northwest Territories.  
Comment: Disjunct



**Puccinellia kurilensis**

**Puccinellia poacea** Sørensen  
POACEAE  
Phytogeography: Arctic  
Canadian Arctic: High Arctic  
Status: Rare in the Northwest Territories and Canada.  
Comment: Endemic

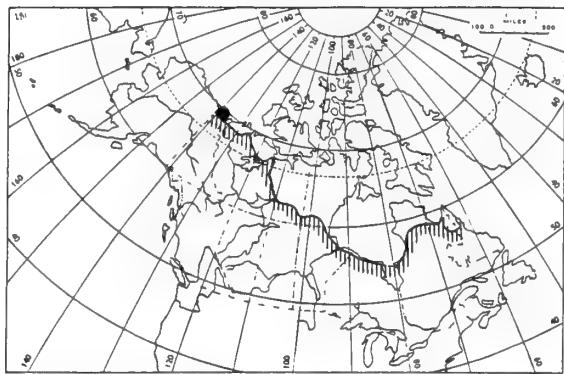
**Puccinellia pumila** = **Puccinellia kurilensis**



**Puccinellia poacea**

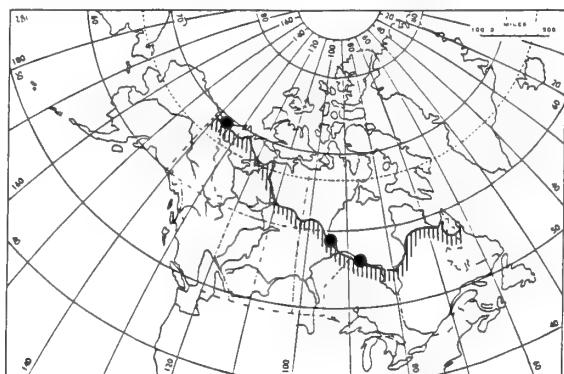
**Ranunculus gelidus = Ranunculus karelinii**

**Ranunculus karelinii** Czern.  
(*Ranunculus gelidus* Kar. & Kir.)  
RANUNCULACEAE  
Phytogeography: Arctic-alpine  
Canadian Arctic: wLow Arctic



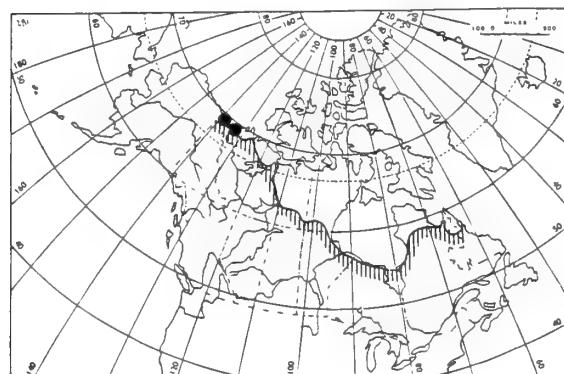
**Ranunculus karelinii**

**Ranunculus sceleratus** L. var. **multifidus**  
Nutt.  
RANUNCULACEAE  
Phytogeography: Boreal  
Canadian Arctic: Low Arctic  
Status: Rare in New Brunswick.



**Ranunculus sceleratus multifidus**

**Ranunculus turneri** Greene  
RANUNCULACEAE  
Phytogeography: Arctic  
Canadian Arctic: wLow Arctic  
Status: Rare in the Yukon Territory, the Northwest Territories, and Canada.

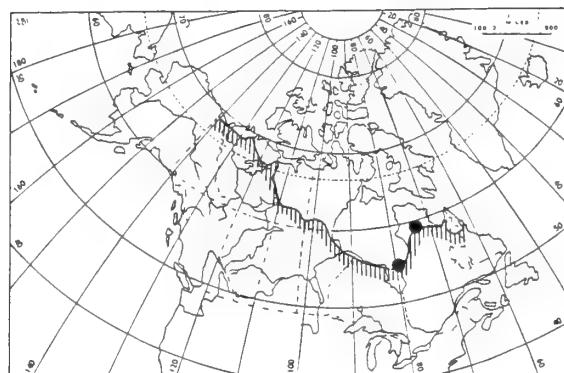


**Ranunculus turneri**

**Rhodiola integrifolia** = **Sedum integrifolium** ssp. **integrifolium**

**Rhodiola rosea** = **Sedum rosea**

**Ribes glandulosum** Grauer  
GROSSULARIACEAE  
Phytogeography: Boreal  
Canadian Arctic: eLow and eMid Arctic



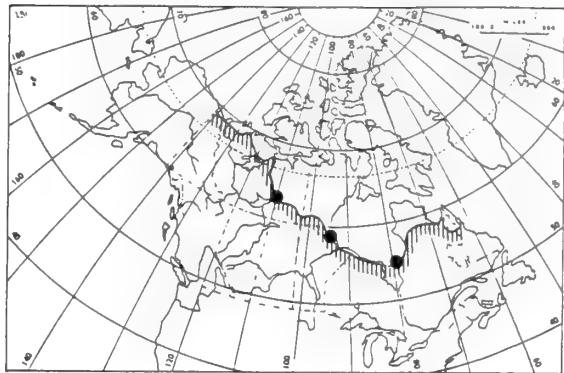
**Ribes glandulosum**

**Rumex aquaticus L. var. *fenestratus***  
(Greene) Dorn

(*Rumex occidentalis* S. Wats.)

POLYGONACEAE

Phytogeography: Boreal  
Canadian Arctic: Low Arctic



**Rumex occidentalis = Rumex aquaticus var. *fenestratus***

**Sagina linnaei = Sagina saginoides**

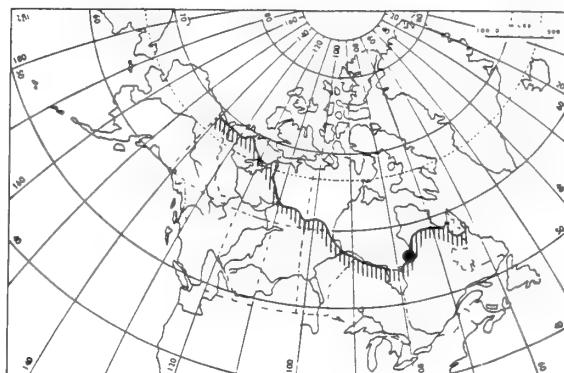
**Sagina saginoides (L.) Karst.**

(*Sagina linnaei* L. Presl)

CARYOPHYLLACEAE

Phytogeography: Montane  
Canadian Arctic: eLow Arctic  
Status: Rare in Quebec.

**Rumex aquaticus fenestratus**



**Sagina saginoides**

**Sagittaria cuneata Sheldon**

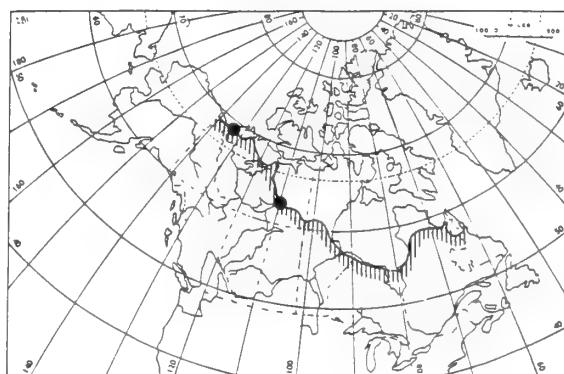
ALISMATACEAE

Phytogeography: Boreal

Canadian Arctic: wLow Arctic

Status: Rare in the Yukon Territory.

Comment: Disjunct



**Sagittaria cuneata**

**Salicornia borealis** Wolf & Jeffries

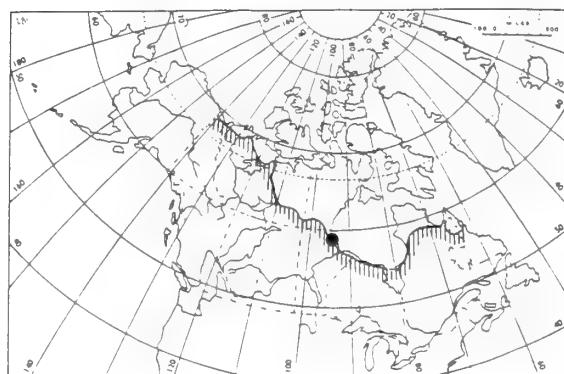
CHENOPODIACEAE

Phytogeography: Arctic

Canadian Arctic: Low Arctic

Status: Rare in Manitoba and Canada.

Comment: Endemic



**Salicornia borealis**

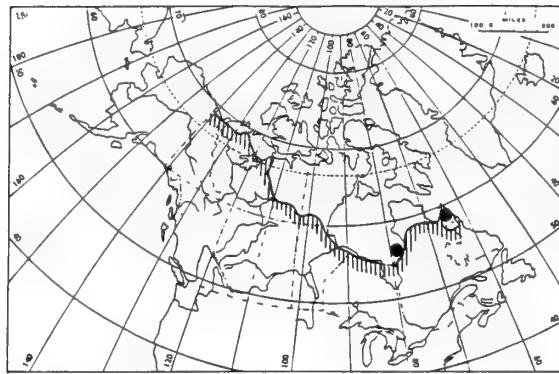
***Salix arctolitoralis* = *Salix ovalifolia*  
var. *arctolitoralis***

***Salix argyrocarpa*** Anderss.

SALICACEAE

Phytogeography: Boreal

Canadian Arctic: eLow Arctic



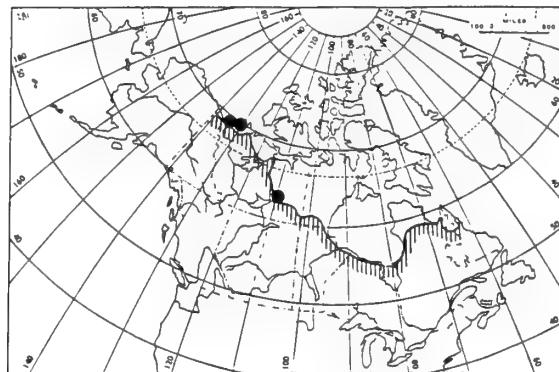
***Salix argyrocarpa***

***Salix bebbiana* Sarg.**

SALICACEAE

Phytogeography: Boreal

Canadian Arctic: wLow Arctic



***Salix bebbiana***

***Salix brachycarpa* Nutt. ssp.**

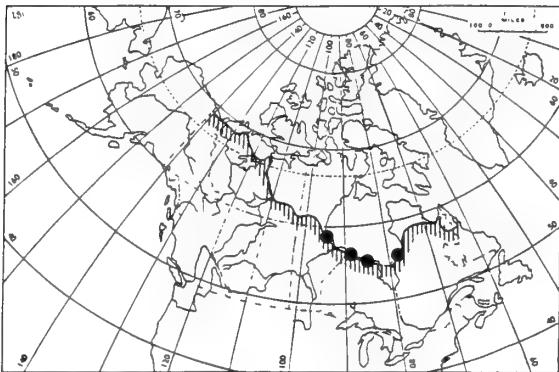
***brachycarpa***

SALICACEAE

Phytogeography: Boreal

Canadian Arctic: eLow Arctic

Status: Rare in the Yukon Territory and Manitoba.



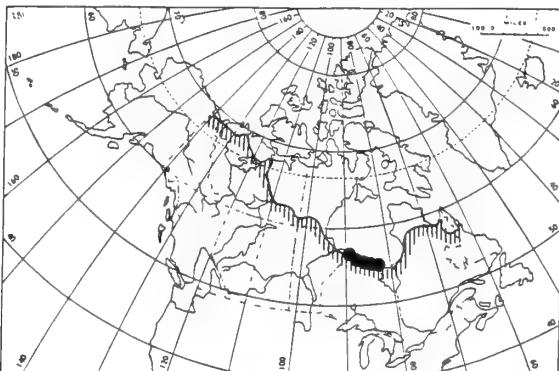
***Salix brachycarpa brachycarpa***

***Salix cordata* Michx.**

SALICACEAE

Phytogeography: Boreal

Canadian Arctic: eLow Arctic



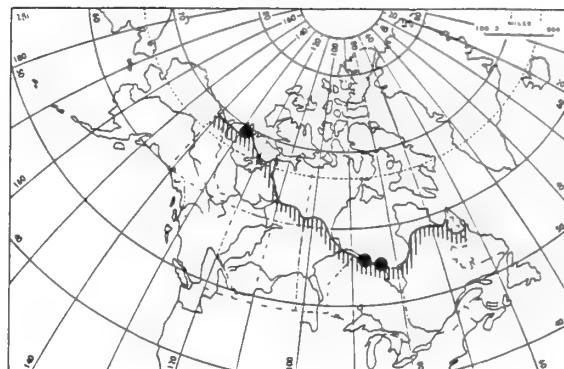
***Salix cordata***

**Salix exigua** Nutt. ssp. **interior** (Rowlee)  
Cronq.

(*Salix interior* var. *pedicellata* (Anderss.)  
Ball)

SALICACEAE

Phytogeography: Boreal  
Canadian Arctic: Low Arctic



### **Salix farriae** = **Salix hastata**

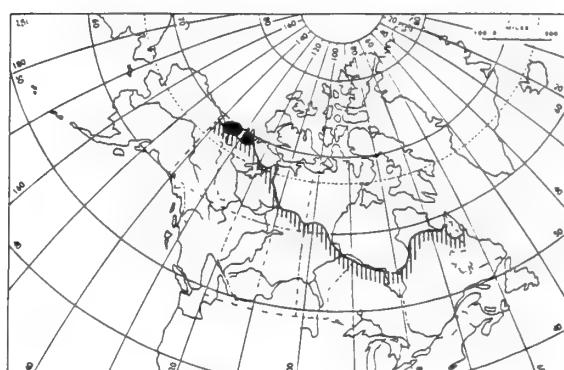
**Salix hastata** L.

(*Salix farriae* sensu Porsild & Cody,  
1980)

SALICACEAE

Phytogeography: Arctic-alpine  
Canadian Arctic: wLow Arctic

### **Salix exigua** *interior*



### **Salix interior** var. **pedicellata** = **Salix exigua** ssp. *interior*

**Salix ovalifolia** Trautv. var. **arctolitoralis**  
(Hultén) Argus

(*Salix arctolitoralis* Hultén)

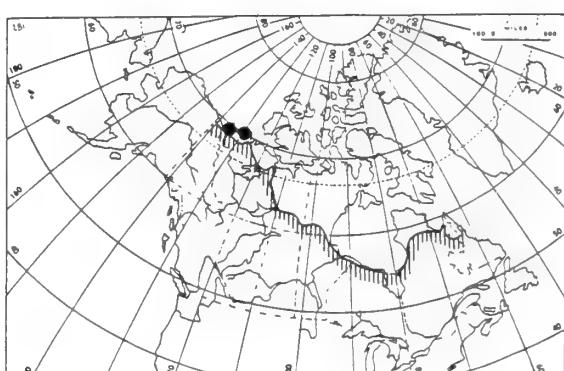
SALICACEAE

Phytogeography: Arctic  
Canadian Arctic: wLow Arctic

Status: Rare in the Yukon Territory, the  
Northwest Territories, and Canada.

Comment: Endemic

### **Salix hastata**



**Salix ovalifolia** Trautv. var. **ovalifolia**

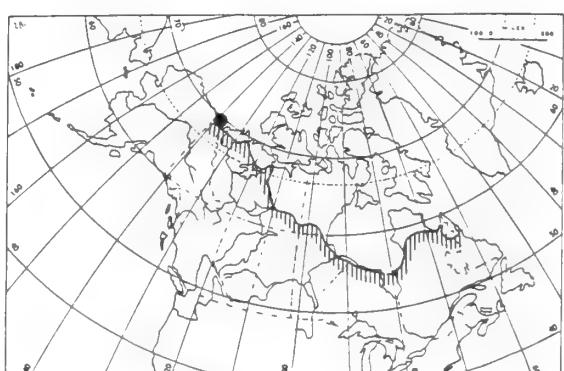
SALICACEAE

Phytogeography: Arctic

Canadian Arctic: wLow Arctic

Status: Rare in the Yukon Territory and  
Canada.

### **Salix ovalifolia** *arctolitoralis*



### **Salix ovalifolia** *ovalifolia*

***Salix pedicellaris* Pursh**

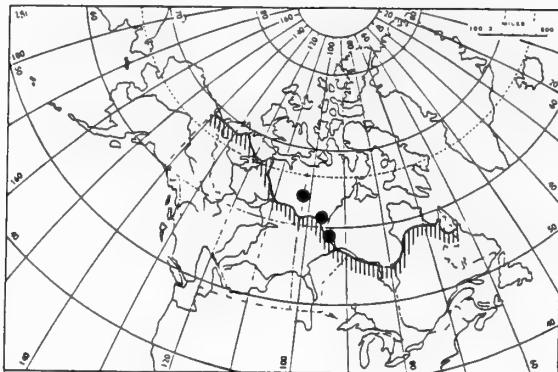
(*Salix pedicellaris* var. *hypoglaucia*  
(Fern.) Ball)

SALICACEAE

Phytogeography: Boreal

Canadian Arctic: Low Arctic

Status: Rare in the Yukon Territory,  
Newfoundland, and Nova Scotia.



***Salix pedicellaris***

***Salix pedicellaris* var. *hypoglaucia* =**

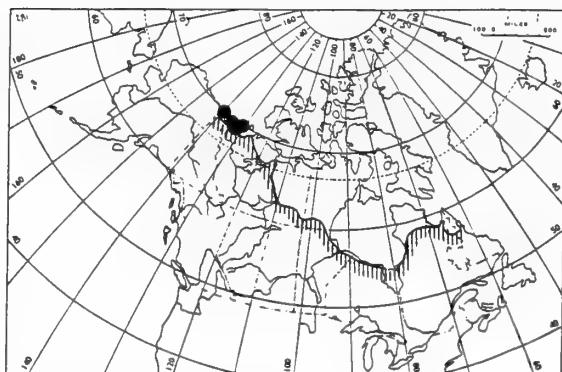
***Salix pedicellaris***

***Salix phlebophylla* Anderss.**

SALICACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: wLow Arctic



***Salix phlebophylla***

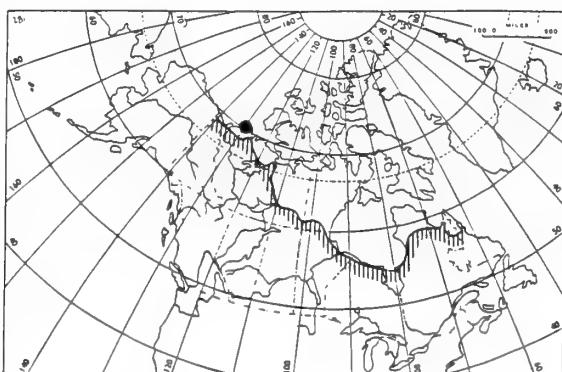
***Salix sphenophylla* Skvort.**

SALICACEAE

Phytogeography: Arctic

Canadian Arctic: wLow Arctic

Status: Rare in the Northwest Territories



***Salix sphenophylla***

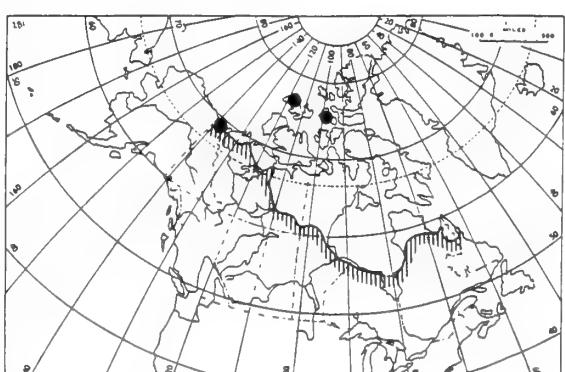
***Saxifraga eschscholtzii* Sternb.**

SAXIFRAGACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: wLow and High Arctic

Status: Rare in the Yukon Territory, the  
Northwest Territories, and Canada.



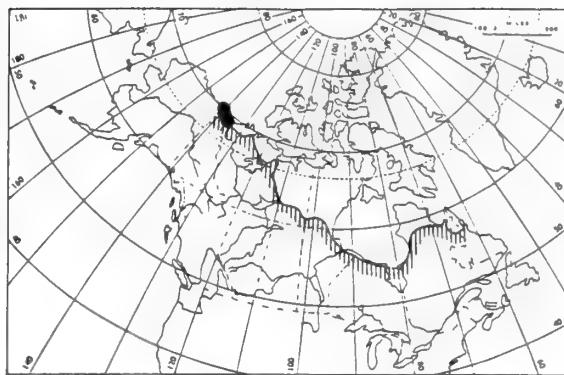
***Saxifraga eschscholtzii***

**Saxifraga nelsoniana** D. Don ssp.  
**nelsoniana**

(*Saxifraga punctata* ssp. *nelsoniana* (D. Don) Hultén)

SAXIFRAGACEAE

Phytogeography: Arctic-alpine  
Canadian Arctic: wLow Arctic



**Saxifraga punctata** ssp. *nelsoniana* =  
**Saxifraga nelsoniana** ssp. *nelsoniana*

**Saxifraga radiata** = **Saxifraga sibirica**

**Saxifraga serpyllifolia** Pursh

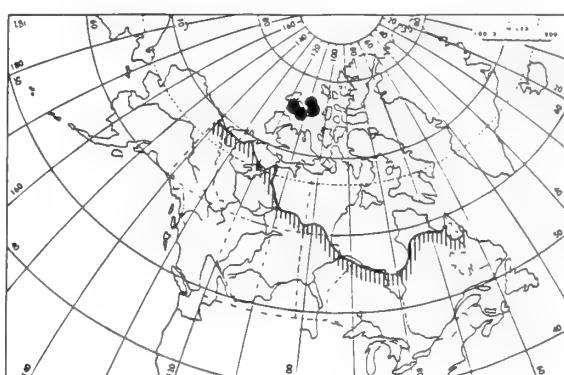
SAXIFRAGACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: High Arctic

Status: Rare in British Columbia.

**Saxifraga nelsoniana nelsoniana**



**Saxifraga serpyllifolia**

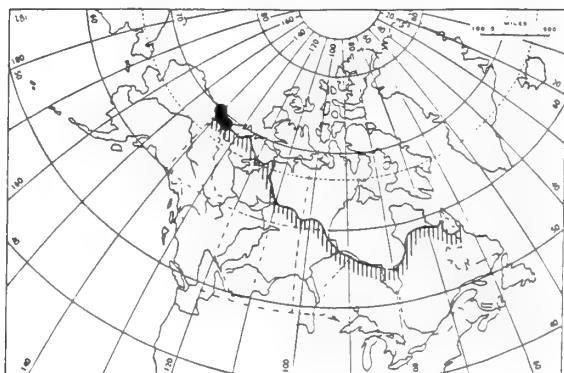
**Saxifraga sibirica** L.

(*Saxifraga radiata* Small)

SAXIFRAGACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: wLow Arctic



**Saxifraga sibirica**

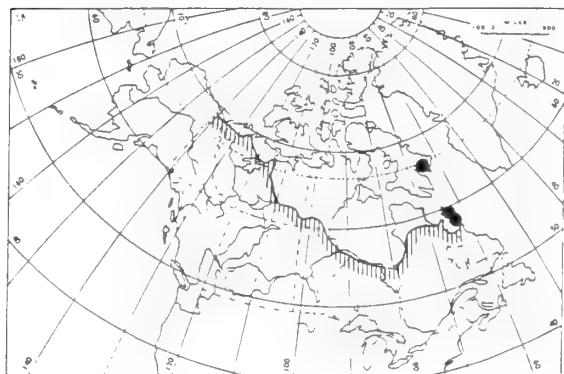
**Saxifraga stellaris** L.

SAXIFRAGACEAE

Phytogeography: Arctic

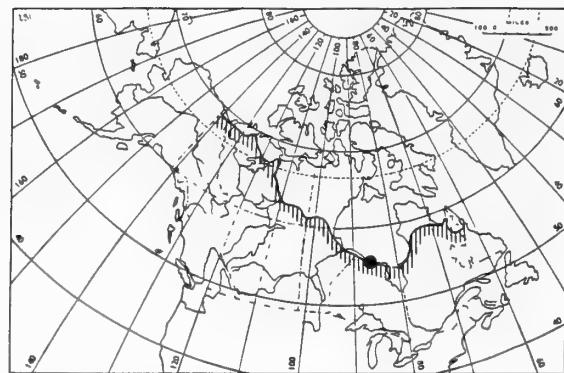
Canadian Arctic: eLow Arctic

Status: Rare in the Northwest Territories and Canada.



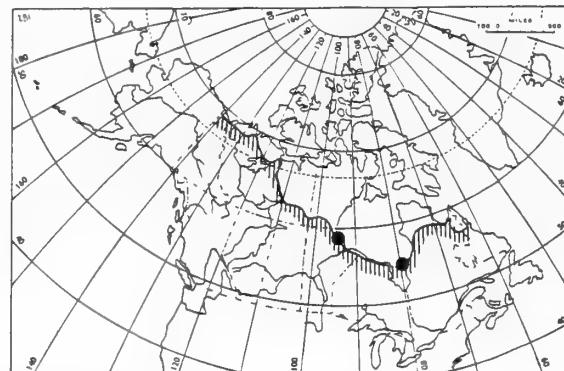
**Saxifraga stellaris**

**Scheuchzeria palustris** L. ssp.  
**americana** (Fern.) Hultén  
 SCHEUCHZERIACEAE  
 Phytogeography: Boreal  
 Canadian Arctic: eLow Arctic  
 Status: Rare in the Yukon Territory and Saskatchewan.



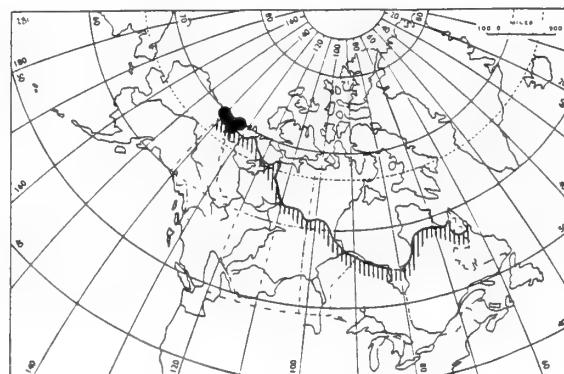
**Scheuchzeria palustris americana**

**Scirpus rufus** (Huds.) Schrad. var.  
**neogaeus** Fern.  
 (Blysmus rufus (Huds.) Link)  
 CYPERACEAE  
 Phytogeography: Coastal  
 Canadian Arctic: eLow Arctic  
 Status: Rare in the Northwest Territories, Prince Edward Island, Nova Scotia, Ontario, Manitoba, Saskatchewan, and Alberta.



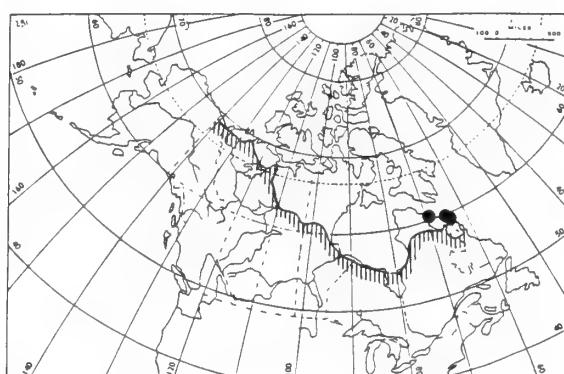
**Scirpus rufus neogaeus**

**Sedum integrifolium** (Raf.) A. Nels.  
 ssp. **integrifolium**  
 (Rhodiola integrifolia Raf., Sedum rosea (L.) Scop. ssp. integrifolium (Raf.) Hultén)  
 CRASSULACEAE  
 Phytogeography: Arctic-alpine  
 Canadian Arctic: wLow Arctic  
 Status: Rare in the Northwest Territories.



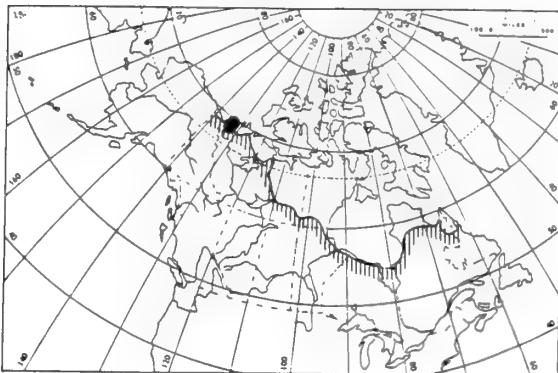
**Sedum integrifolium integrifolium**

**Sedum rosea** (L.) Scop.  
 (Rhodiola rosea L.)  
 CRASSULACEAE  
 Phytogeography: Boreal  
 Canadian Arctic: eLow and eMid Arctic  
 Status: Rare in the Northwest Territories.



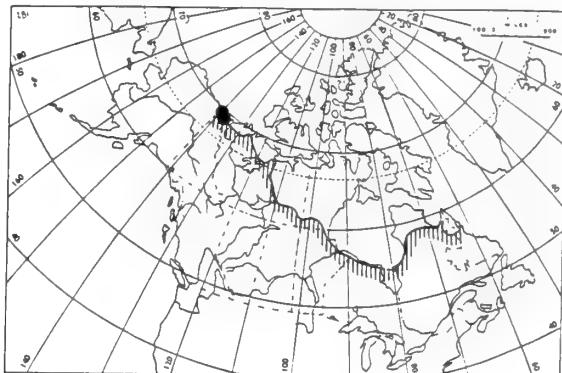
**Sedum rosea**

**Selaginella sibirica** (Milde) Hieron.  
SELAGINELLACEAE  
Phytogeography: Arctic-alpine  
Canadian Arctic: wLow Arctic



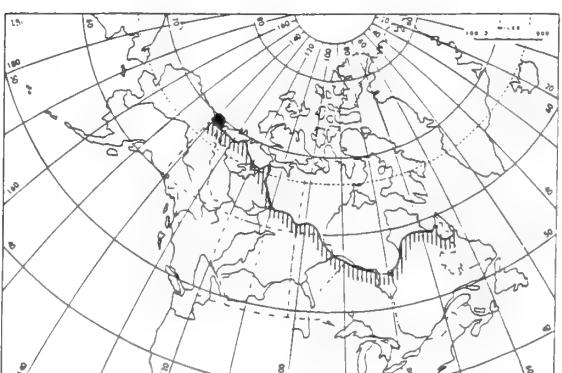
**Selaginella sibirica**

**Senecio cymbalaria** Pursh  
(*Senecio resedifolius* Less.)  
ASTERACEAE  
Phytogeography: Arctic-alpine  
Canadian Arctic: wLow Arctic  
Status: Rare in Newfoundland.



**Senecio cymbalaria**

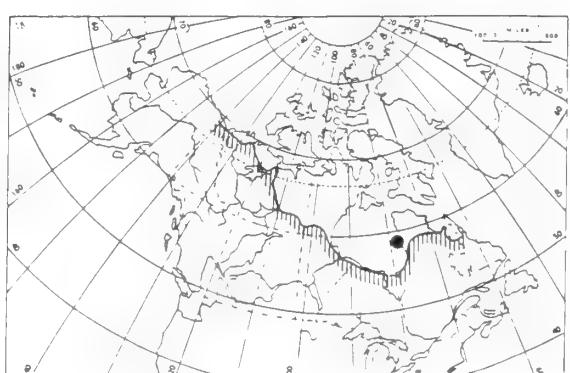
**Senecio fuscatus** Hayek  
(*Senecio lindstroemii* (Ostenf.) Porsild,  
*Senecio tundricola* Tolmie)  
ASTERACEAE  
Phytogeography: Arctic-alpine  
Canadian Arctic: wLow Arctic  
Status: Rare in British Columbia.



**Senecio lindstroemii = Senecio fuscatus**

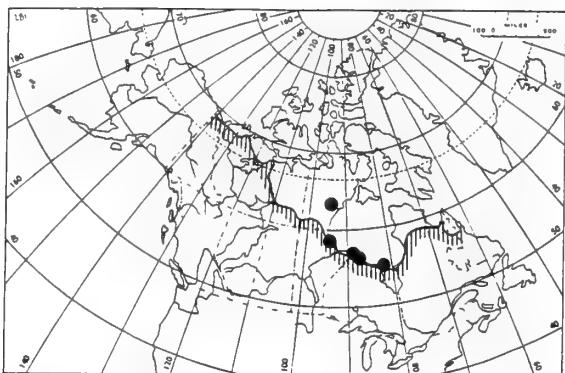
**Senecio tundricola = Senecio fuscatus**

**Senecio pauciflorus** Pursh  
ASTERACEAE  
Phytogeography: Boreal  
Canadian Arctic: eLow Arctic  
Status: Rare in Newfoundland and  
Saskatchewan.



**Senecio pauciflorus**

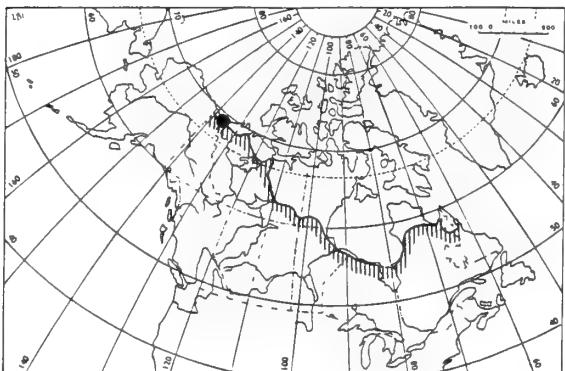
**Senecio pauperulus** Michx.  
ASTERACEAE  
Phytogeography: Boreal  
Canadian Arctic: eLow Arctic



**Senecio resedifolius** = **Senecio cymbalaria**

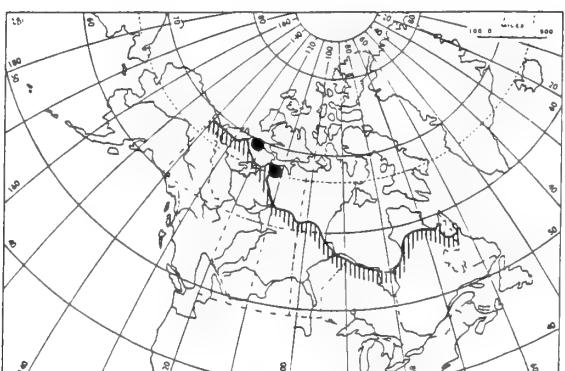
**Senecio pauperulus**

**Senecio yukonensis** Porsild  
ASTERACEAE  
Phytogeography: Arctic-alpine  
Canadian Arctic: wLow Arctic



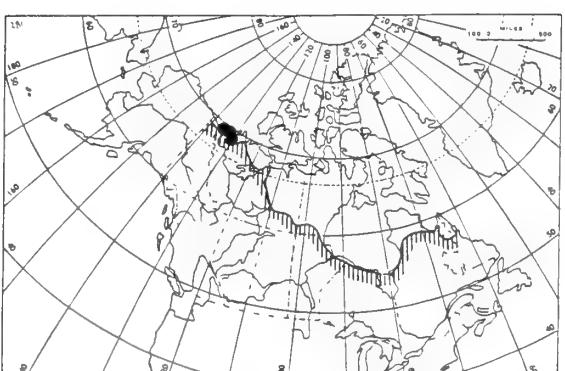
**Senecio yukonensis**

**Silene acaulis** L. var. **subacaulescens**  
(F.N. Williams) Fern. & St. John  
CARYOPHYLLACEAE  
Phytogeography: Arctic-alpine  
Canadian Arctic: wLow Arctic



**Silene acaulis subacaulescens**

**Silene repens** Patrin ex Pers. ssp.  
**purpurata** (Greene) C.L. Hitchc. &  
Maguire  
CARYOPHYLLACEAE  
Phytogeography: Arctic-alpine  
Canadian Arctic: wLow Arctic



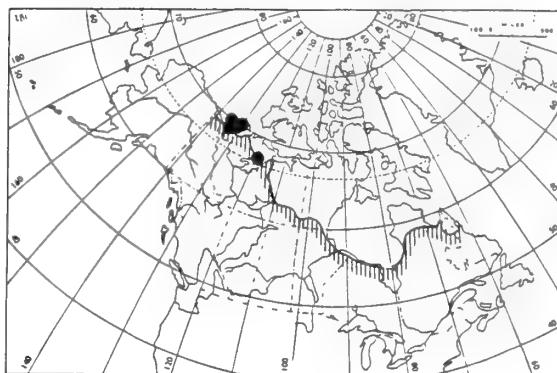
**Silene repens purpurata**

**Silene taylorae** (B.L. Robins.) Hultén  
(Melandrium taylorae (B.L. Robins.)  
Tolm.)

CARYOPHYLLACEAE

Phytogeography: Boreal

Canadian Arctic: wLow Arctic



**Silene taylorae**

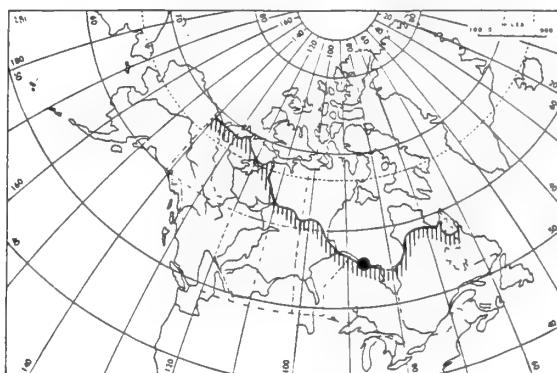
**Sisyrinchium montanum** Greene

IRIDACEAE

Phytogeography: Boreal

Canadian Arctic: eLow Arctic

Status: Rare in the Yukon Territory.



**Sisyrinchium montanum**

**Smelowskia calycina** (Steph. ex Willd.)

C.A. Mey. var. **media** Drury & Rollins

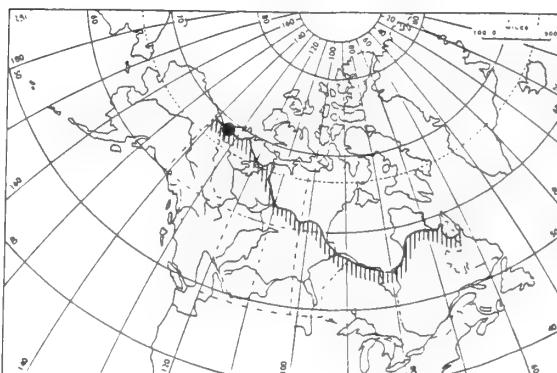
BRASSICACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: wLow Arctic

Status: Rare in the Northwest Territories and Canada.

Comment: Endemic



**Smelowskia calycina media**

**Solidago decumbens** var. **oreophila** =

**Solidago simplex** var. **nana**

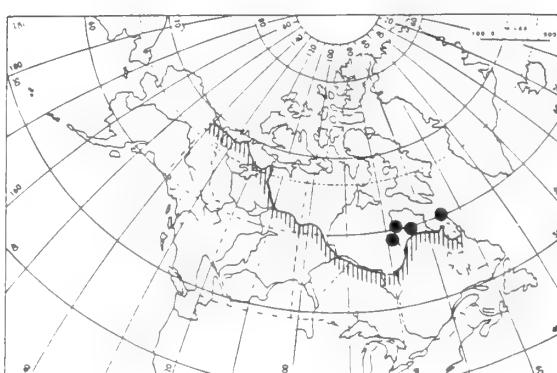
**Solidago macrophylla** Pursh

ASTERACEAE

Phytogeography: Boreal

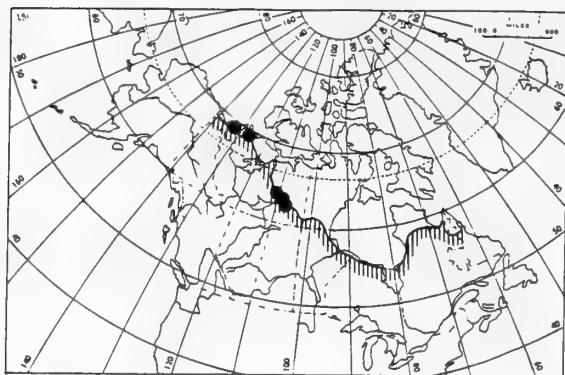
Canadian Arctic: eLow Arctic

Status: Rare in Prince Edward Island.



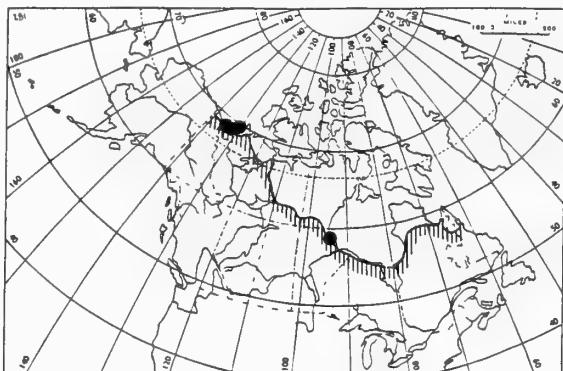
**Solidago macrophylla**

**Solidago simplex** Kunth var. **nana** Gray  
(*Solidago decumbens* var. *oreophila*  
(Rydb.) Fern.)  
ASTERACEAE  
Phytogeography: Boreal  
Canadian Arctic: wLow Arctic



**Solidago simplex nana**

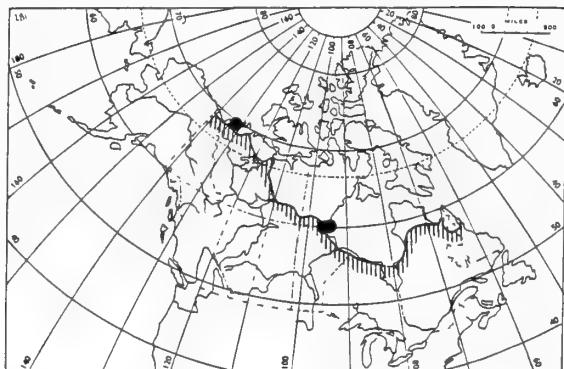
**Sparganium angustifolium** Michx.  
(*Sparganium emersum* var.  
*multipedunculatum* (Morong) Reveal,  
*Sparganium multipedunculatum*  
(Morong) Rydb.)  
SPARGANIACEAE  
Phytogeography: Aquatic  
Canadian Arctic: Low Arctic  
Status: Rare in Nova Scotia, Quebec, and Ontario.



**Sparganium angustifolium**

**Sparganium emersum** var.  
**multipedunculatum** = **Sparganium**  
**angustifolium**

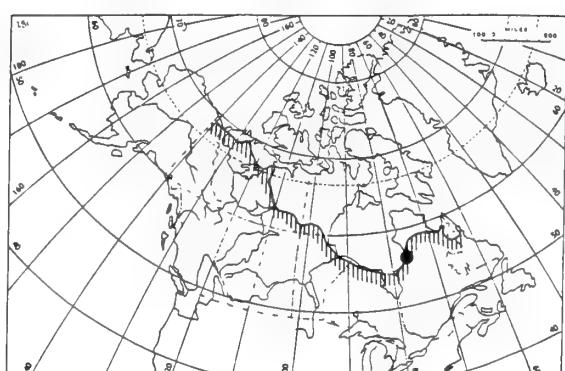
**Sparganium minimum** (C.J. Hartman)  
Wallr.  
SPARGANIACEAE  
Phytogeography: Aquatic  
Canadian Arctic: Low Arctic  
Status: Rare in the Yukon Territory.



**Sparganium minimum**

**Sparganium multipedunculatum** =  
**Sparganium angustifolium**

**Spergularia canadensis** G. Don  
CARYOPHYLLACEAE  
Phytogeography: Coastal  
Canadian Arctic: eLow Arctic  
Status: Rare in Ontario.

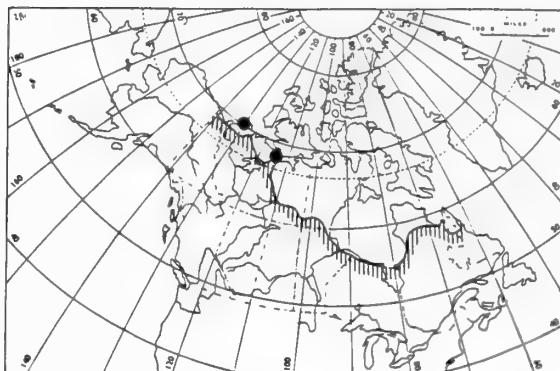


**Spergularia canadensis**

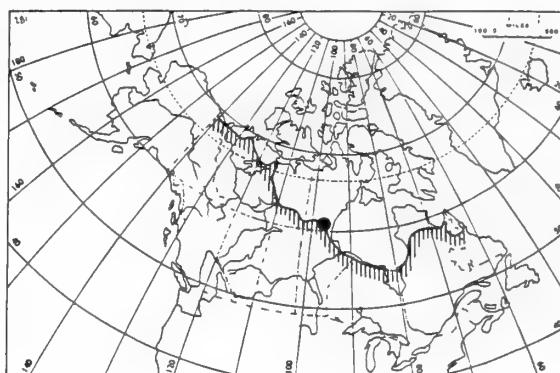
**Suaeda calceoliformis** (Hook.) Moq.  
 (Suaeda depressa auct. non (Pursh) S. Wats.)  
 CHENOPODIACEAE  
 Phytogeography: Coastal  
 Canadian Arctic: wLow Arctic  
 Status: Rare in the Yukon Territory, the Northwest Territories, Newfoundland, Prince Edward Island, and Ontario.

**Suaeda depressa = Suaeda calceoliformis**

**Subularia aquatica** L. ssp. **americana**  
 Mulligan & Calder  
 BRASSICACEAE  
 Phytogeography: Aquatic  
 Canadian Arctic: Low Arctic  
 Status: Rare in the Yukon Territory, the Northwest Territories, New Brunswick, Manitoba, and Saskatchewan.

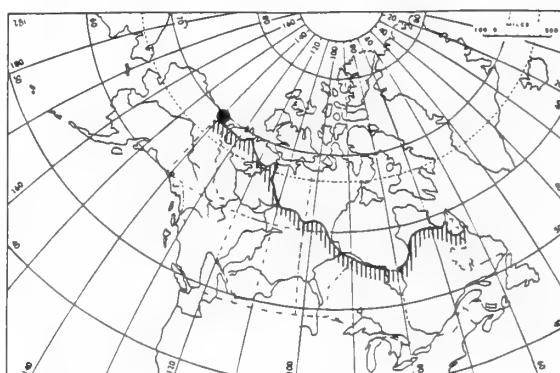


**Suaeda calceoliformis**



**Subularia aquatica americana**

**Taraxacum lyratum** (Ledeb.) DC.  
 (Taraxacum sibiricum Dahlst.)  
 ASTERACEAE  
 Phytogeography: Arctic-alpine  
 Canadian Arctic: wLow Arctic

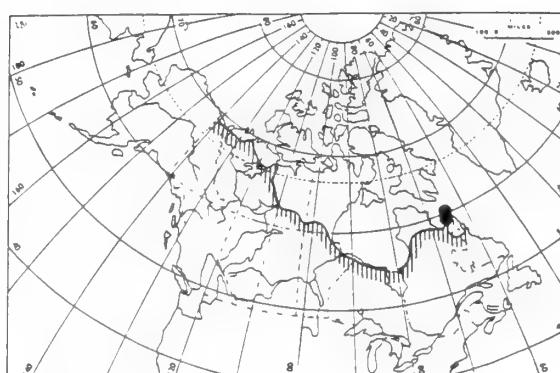


**Taraxacum lyratum**

**Taraxacum sibiricum = Taraxacum lyratum**

**Thalictrum alpinum** L.  
 RANUNCULACEAE  
 Phytogeography: Arctic-alpine  
 Canadian Arctic: eLow Arctic  
 Status: Rare in Quebec.  
 Comment: Disjunct

**Thellungiella salsuginea = Arabidopsis salsuginea**



**Thalictrum alpinum**

***Thelypteris phegopteris* = *Phegopteris connectilis***

***Thlaspi arcticum*** Porsild

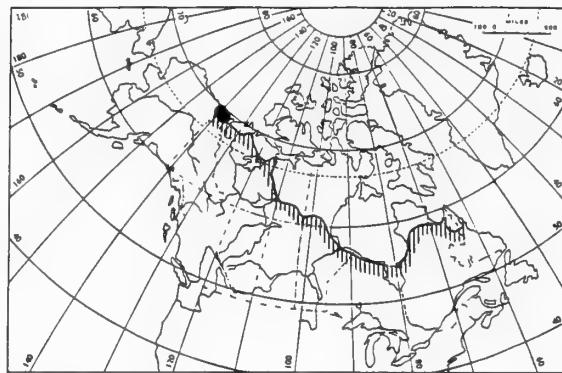
BRASSICACEAE

Phytogeography: Arctic-alpine

Canadian Arctic: wLow Arctic

Status: Rare in the Yukon Territory and Canada.

Comment: Endemic



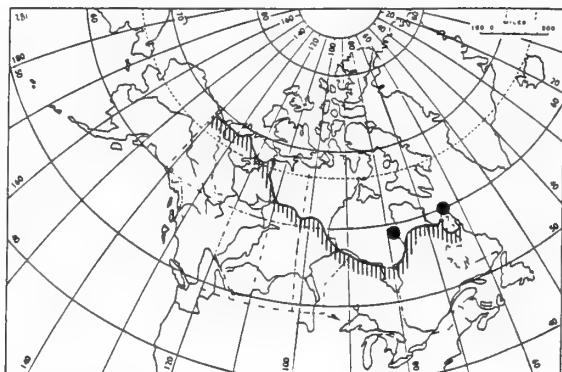
***Thlaspi arcticum***

***Trientalis borealis*** Raf.

PRIMULACEAE

Phytogeography: Boreal

Canadian Arctic: eLow Arctic



***Trientalis borealis***

***Trisetum sibiricum*** Rupr. ssp. ***litorale***

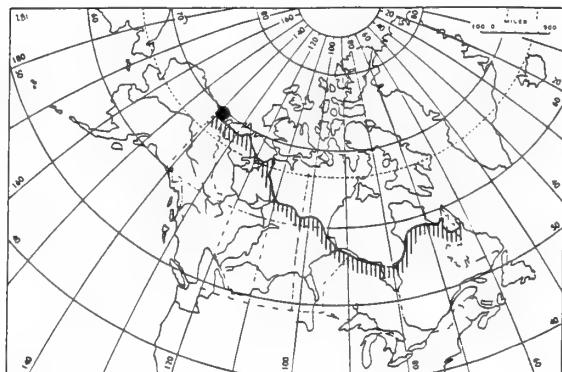
(Rupr. ex Rosh.) Rosh.

POACEAE

Phytogeography: Arctic

Canadian Arctic: wLow Arctic

Status: Rare in the Yukon Territory and Canada.



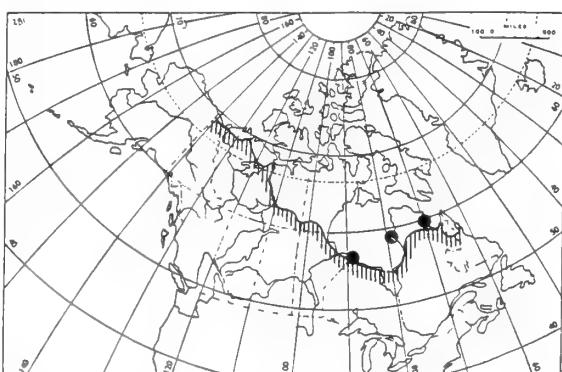
***Trisetum sibiricum* litorale**

***Utricularia ochroleuca*** R.W. Hartman

LENTIBULARIACEAE

Phytogeography: Aquatic

Canadian Arctic: eLow Arctic



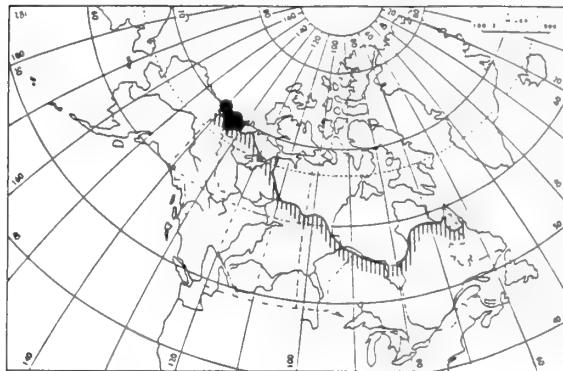
***Utricularia ochroleuca***

**Valeriana capitata** Pallas ex Link

VALERIANACEAE

Phytogeography: Boreal

Canadian Arctic: wLow Arctic



**Valeriana capitata**

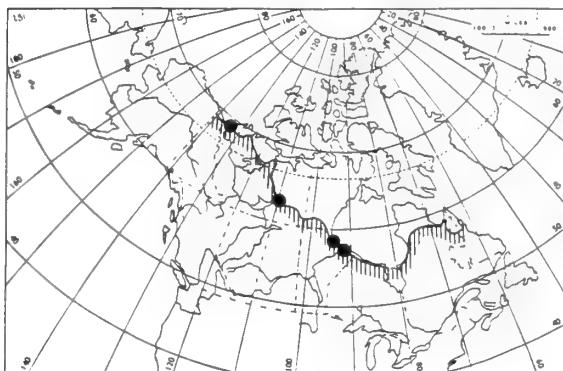
**Viburnum edule** (Michx.) Raf.

CAPRIFOLIACEAE

Phytogeography: Boreal

Canadian Arctic: Low Arctic

Status: Rare in Nova Scotia.



**Viburnum edule**

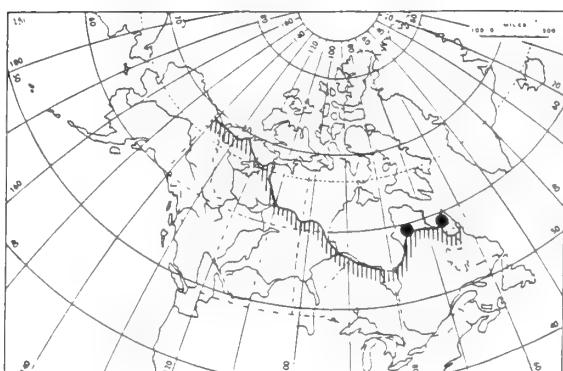
**Viola selkirkii** Pursh ex Goldie

VIOLACEAE

Phytogeography: Boreal

Canadian Arctic: eLow Arctic

Status: Rare in the Yukon Territory, Newfoundland, Manitoba, Saskatchewan, and Alberta.



**Viola selkirkii**

**Viscaria alpina** = *Lychnis alpina*

var. *alpina*

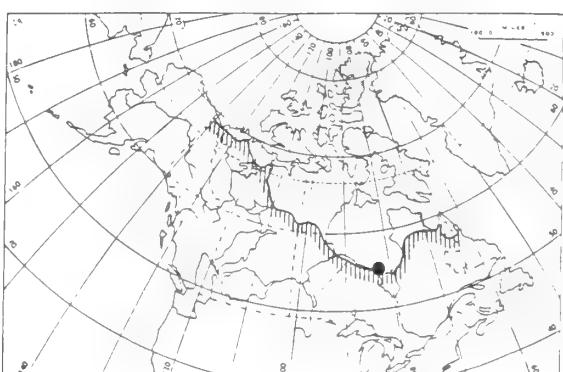
**Zannichellia palustris** L.

POTAMOGETONACEAE

Phytogeography: Aquatic

Canadian Arctic: eLow Arctic

Status: Rare in the Yukon Territory, Newfoundland, and British Columbia.



**Zannichellia palustris**

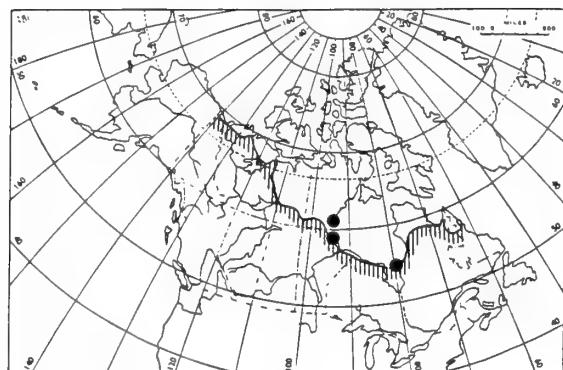
**Zostera marina L.**

ZOSTERACEAE

Phytogeography: Coastal

Canadian Arctic: eLow Arctic

Status: Rare in the Northwest Territories,  
Ontario, and Manitoba.



**Zostera marina**

## APPENDIX I

### FAMILY LIST OF RARE VASCULAR PLANTS IN THE CANADIAN ARCTIC

#### ADIANTACEAE

*Cryptogramma stelleri*

#### ALISMATACEAE

*Sagittaria cuneata*

#### APIACEAE

*Heracleum lanatum*

*Ligusticum scoticum* var. *scoticum*

#### ARACEAE

*Calla palustris*

#### ASPLENIACEAE

*Asplenium trichomanes-ramosum*

*Phegopteris connectilis*

#### ASTERACAE

*Agoseris glauca* var. *dasycephala*

*Antennaria friesiana* ssp. *alaskana*

*Antennaria microphylla*

*Arnica angustifolia* ssp. *tomentosa*

*Arnica chamissonis* ssp. *foliosa*

*Arnica lessingii*

*Artemisia arctica* ssp. *arctica*

*Artemisia arctica* ssp. *comata*

*Artemisia furcata* var. *furcata*

*Artemisia globularia*

*Artemisia glomerata*

*Aster alpinus* ssp. *vierhapperi*

*Crepis elegans*

*Erigeron alpiniformis*

*Erigeron glabellus* ssp. *pubescens*

*Erigeron grandiflorus* ssp. *arcticus*

*Erigeron hyperboreus*

*Erigeron lonchophyllum*

*Erigeron muirii*

*Erigeron yukonensis*

*Senecio cymbalaria*

*Senecio fuscatus*

*Senecio pauciflorus*

*Senecio pauperculus*

*Senecio yukonensis*

*Solidago macrophylla*

*Solidago simplex* var. *nana*

*Taraxacum lyratum*

#### BETULACEAE

*Alnus incana*

*Betula nana* ssp. *nana*

#### BORAGINACEAE

*Eritrichium aretioides*

*Mertensia drummondii*

*Mertensia paniculata* var. *paniculata*

*Myosotis asiatica*

#### BRASSICACEAE

*Arabidopsis salsuginea*

*Braya glabella*

*Braya pilosa*

*Braya thorild-wulffii*

*Draba aurea*

*Draba borealis*

*Draba cana*

*Draba incana*

*Draba incerta*

*Draba nemorosa* var. *leiocarpa*

*Draba palanderiana*

*Parrya nudicaulis*

*Smelowskia calycina* var. *media*

*Subularia aquatica* ssp. *americana*

*Thlaspi arcticum*

#### CALLITRICHACEAE

*Callitricha anceps*

## CAPRIFOLIACEAE

*Lonicera villosa* var. *calvescens*  
*Viburnum edule*

## CARYOPHYLLACEAE

*Cerastium maximum*  
*Dianthus repens*  
*Lychnis alpina* var. *alpina*  
*Minuartia arctica*  
*Minuartia macrocarpa*  
*Minuartia obtusiloba*  
*Minuartia yukonensis*  
*Sagina saginoides*  
*Silene acaulis* var. *subacaulescens*  
*Silene repens* ssp. *purpurata*  
*Silene taylorae*  
*Spergularia canadensis*

## CERATOPHYLLACEAE

*Ceratophyllum demersum*

## CHENOPodiACEAE

*Atriplex gmelinii*  
*Chenopodium capitatum*  
*Chenopodium salinum*  
*Salicornia borealis*  
*Suaeda calceoliformis*

## CRASSULACEAE

*Sedum integrifolium* ssp. *integrifolium*  
*Sedum rosea*

## CYPERACEAE

*Carex adelostoma*  
*Carex albonigra*  
*Carex arcta*  
*Carex deflexa*  
*Carex diandra*  
*Carex disperma*  
*Carex laxa*  
*Carex leptalea*  
*Carex limosa*  
*Carex livida* var. *radicaulis*  
*Carex macloviana* ssp. *macloviana*  
*Carex media*  
*Carex michrochaeta*  
*Carex paleacea*

*Carex petricosa*  
*Carex podocarpa*  
*Carex praticola*  
*Carex rufina*  
*Carex trisperma*  
*Eleocharis kamtschatica*  
*Eriophorum gracile*  
*Scirpus rufus* var. *neogaeus*

## DIAPENSIACEAE

*Diapensia lapponica* var. *obovata*

## DRYOPTERIDACEAE

*Polystichum lonchitis*

## EQUISETACEAE

*Equisetum palustre*  
*Equisetum pratense*

## ERICACEAE

*Arctostaphylos uva-ursi*

## FABACEAE

*Astragalus bodinii*  
*Astragalus umbellatus*  
*Oxytropis nigrescens* var. *nigrescens*  
*Oxytropis splendens*  
*Oxytropis viscosa* var. *subsucculenta*

## GENTIANACEAE

*Gentiana nivalis*  
*Gentianella amarella* ssp. *acuta*  
*Gentianopsis detonsa* ssp. *detonsa*  
*Gentianopsis detonsa* ssp. *raupii*

## GROSSULARIACEAE

*Ribes glandulosum*

## HALORAGACEAE

*Myriophyllum alterniflorum*  
*Myriophyllum verticillatum*

## IRIDACEAE

*Sisyrinchium montanum*

**JUNCACEAE**

*Juncus alpinoarticulatus* ssp. *nodulosus*  
*Juncus subtilis*

**LEMNACEAE**

*Lemna trisulca*

**LENTIBULARIACEAE**

*Utricularia ochroleuca*

**LILIACEAE**

*Allium schoenoprasum* var. *sibiricum*  
*Lloydia serotina*

**LINACEAE**

*Linum lewisii* ssp. *lepagei*

**NYMPHAEACEAE**

*Nuphar lutea* ssp. *polysepala*

**OPHIOGLOSSACEAE**

*Botrychium ascendens*  
*Botrychium minganense*

**ORCHIDACEAE**

*Amerorchis rotundifolia*  
*Coeloglossum viride* var. *virescens*  
*Cypripedium guttatum* ssp. *guttatum*  
*Cypripedium passerinum*  
*Listera borealis*  
*Platanthera albida* var. *straminea*

**OROBANCHACEAE**

*Boschniakia rossica*

**PLANTAGINACEAE**

*Plantago eriopoda*

**POACEAE**

*Arctagrostis arundinacea*  
*Bromus pumpellianus*  
*Calamagrostis holmii*  
*Deschampsia cespitosa* ssp. *alpina*  
*Elymus trachycaulus*  
*Festuca altaica*  
*Festuca lenensis*

*Festuca vivipara* ssp. *glabra*

*Koeleria asiatica*

*Phleum alpinum*

*Poa eminens*

*Poa lanata*

*Poa leptocoma* ssp. *paucispicula*

*Puccinellia bruggemannii*

*Puccinellia deschampsoides*

*Puccinellia kurilensis*

*Puccinellia poacea*

*Trisetum sibiricum* ssp. *litorale*

**POLEMONIACEAE**

*Phlox richardsonii* ssp. *richardsonii*

**POLYGONACEAE**

*Polygonum alpinum*

*Polygonum amphibium* var. *stipulaceum*

*Polygonum caurianum* ssp. *caurianum*

*Polygonum caurianum* ssp. *hudsonianum*

*Rumex aquaticus* var. *fenestratus*

**POLYPODIACEAE**

*Polypodium virginianum*

**POTAMOGETONACEAE**

*Potamogeton friesii*

*Potamogeton pectinatus*

*Potamogeton richardsonii*

*Potamogeton strictifolius*

*Potamogeton zosteriformis*

*Zannichellia palustris*

**PRIMULACEAE**

*Dodecatheon frigidum*

*Douglasia arctica*

*Lysimachia thyrsiflora*

*Primula borealis*

*Primula incana*

*Primula mistassinica*

*Trientalis borealis*

**RANUNCULACEAE**

*Aconitum delphinifolium* ssp.

*delphinifolium*

*Aconitum delphinifolium* ssp. *paradoxum*

*Anemone drummondii*  
*Anemone multiceps*  
*Anemone narcissiflora* ssp. *interior*  
*Aquilegia brevistyla*  
*Caltha natans*  
*Caltha palustris* var. *palustris*  
*Delphinium glaucum*  
*Ranunculus karelinii*  
*Ranunculus sceleratus* var. *multifidus*  
*Ranunculus turneri*  
*Thalictrum alpinum*

### **ROSACEAE**

*Alchemilla glomerulans*  
*Dryas integrifolia* ssp. *chamissonis*  
*Dryas integrifolia* ssp. *crenulata*  
*Dryas integrifolia* ssp. *sylvatica*  
*Dryas octopetala* ssp. *octopetala*  
*Fragaria virginiana* ssp. *glauca*  
*Geum glaciale*  
*Geum rossii*  
*Potentilla biflora*  
*Potentilla diversifolia* var. *ranunculus*  
*Potentilla multifida*  
*Potentilla pensylvanica* var. *pectinata*  
*Potentilla uniflora*

### **RUBIACEAE**

*Galium boreale*  
*Galium labradoricum*

### **SALICACEAE**

*Populus tremuloides*  
*Salix argyrocarpa*  
*Salix bebbiana*  
*Salix brachycarpa* ssp. *brachycarpa*  
*Salix cordata*  
*Salix exigua* ssp. *interior*  
*Salix hastata*  
*Salix ovalifolia* var. *arctolitoralis*  
*Salix ovalifolia* var. *ovalifolia*  
*Salix pedicellaris*  
*Salix phlebophylla*  
*Salix sphenophylla*

### **SAXIFRAGACEAE**

*Boykinia richardsonii*  
*Saxifraga eschscholtzii*  
*Saxifraga nelsoniana* ssp. *nelsoniana*  
*Saxifraga serpyllifolia*  
*Saxifraga sibirica*  
*Saxifraga stellaris*

### **SCHEUCHZERIACEAE**

*Scheuchzeria palustris* ssp. *americana*

### **SCROPHULARIACEAE**

*Castilleja hyperborea*  
*Castilleja septentrionalis*  
*Castilleja yukonis*  
*Lagotis minor*  
*Limosella aquatica*  
*Pedicularis macrodonta*  
*Pedicularis verticillata*

### **SELAGINELLACEAE**

*Selaginella sibirica*

### **SPARGANIACEAE**

*Sparganium angustifolium*  
*Sparganium minimum*

### **THELYPTERIDACEAE**

*Gymnocarpium disjunctum*

### **VALERIANACEAE**

*Valeriana capitata*

### **VIOLACEAE**

*Viola selkirkii*

### **ZOSTERACEAE**

*Zostera marina*

## APPENDIX II

### PHYTOGEOGRAPHICAL LIST OF RARE VASCULAR PLANTS IN THE CANADIAN ARCTIC

#### ARCTIC

<i>Aconitum delphinifolium</i> ssp. <i>paradoxum</i>	<i>Arnica angustifolia</i> ssp. <i>tomentosa</i>
<i>Artemisia arctica</i> ssp. <i>comata</i>	<i>Arnica lessingii</i>
<i>Artemisia furcata</i> var. <i>furcata</i>	<i>Artemisia arctica</i> ssp. <i>arctica</i>
<i>Betula nana</i> ssp. <i>nana</i>	<i>Artemisia globularia</i>
<i>Braya pilosa</i>	<i>Artemisia glomerata</i>
<i>Braya thorild-wulffii</i>	<i>Aster alpinus</i> ssp. <i>vierhapperi</i>
<i>Calamagrostis holmii</i>	<i>Astragalus umbellatus</i>
<i>Carex rufina</i>	<i>Boykinia richardsonii</i>
<i>Dryas integrifolia</i> ssp. <i>chamissonis</i>	<i>Braya glabella</i>
<i>Erigeron alpiniformis</i>	<i>Carex albonigra</i>
<i>Erigeron hyperboreus</i>	<i>Carex laxa</i>
<i>Erigeron muirii</i>	<i>Carex macloviana</i> ssp. <i>macloviana</i>
<i>Gentianopsis detonsa</i> ssp. <i>detonsa</i>	<i>Carex michrochaeta</i>
<i>Linum lewisii</i> ssp. <i>lepagei</i>	<i>Carex petricosa</i>
<i>Lychnis alpina</i> var. <i>alpina</i>	<i>Carex podocarpa</i>
<i>Mertensia drummondii</i>	<i>Castilleja hyperborea</i>
<i>Platanthera albida</i> var. <i>straminea</i>	<i>Castilleja yukonis</i>
<i>Potentilla diversifolia</i> var. <i>ranunculus</i>	<i>Cerastium maximum</i>
<i>Puccinellia bruggemannii</i>	<i>Deschampsia cespitosa</i> ssp. <i>alpina</i>
<i>Puccinellia deschampsoides</i>	<i>Dianthus repens</i>
<i>Puccinellia poacea</i>	<i>Diapensia lapponica</i> var. <i>obovata</i>
<i>Ranunculus turneri</i>	<i>Dodecatheon frigidum</i>
<i>Salicornia borealis</i>	<i>Douglasia arctica</i>
<i>Salix ovalifolia</i> var. <i>arctolitoralis</i>	<i>Draba borealis</i>
<i>Salix ovalifolia</i> var. <i>ovalifolia</i>	<i>Draba incerta</i>
<i>Salix sphenophylla</i>	<i>Draba palanderiana</i>
<i>Saxifraga stellaris</i>	<i>Dryas integrifolia</i> ssp. <i>crenulata</i>
<i>Trisetum sibiricum</i> ssp. <i>litorale</i>	<i>Dryas octopetala</i> ssp. <i>octopetala</i>
	<i>Erigeron grandiflorus</i> ssp. <i>arcticus</i>
	<i>Eritrichium aretioides</i>
	<i>Festuca altaica</i>
	<i>Festuca lenensis</i>
	<i>Festuca vivipara</i> ssp. <i>glabra</i>
	<i>Gentiana nivalis</i>
	<i>Gentianopsis detonsa</i> ssp. <i>raupii</i>
	<i>Geum glaciale</i>
	<i>Geum rossii</i>
	<i>Koeleria asiatica</i>

#### ARCTIC-ALPINE

<i>Aconitum delphinifolium</i> ssp. <i>delphinifolium</i>	<i>Festuca vivipara</i> ssp. <i>glabra</i>
<i>Alchemilla glomerulans</i>	<i>Gentiana nivalis</i>
<i>Anemone drummondii</i>	<i>Gentianopsis detonsa</i> ssp. <i>raupii</i>
<i>Anemone multiceps</i>	<i>Geum glaciale</i>
<i>Anemone narcissiflora</i> ssp. <i>interior</i>	<i>Geum rossii</i>
<i>Antennaria friesiana</i> ssp. <i>alaskana</i>	<i>Koeleria asiatica</i>

<i>Lagotis minor</i>	<i>Astragalus bodinii</i>
<i>Lloydia serotina</i>	<i>Boschniakia rossica</i>
<i>Minuartia arctica</i>	<i>Botrychium minganense</i>
<i>Minuartia macrocarpa</i>	<i>Bromus pumpellianus</i>
<i>Minuartia obtusiloba</i>	<i>Calla palustris</i>
<i>Minuartia yukonensis</i>	<i>Caltha natans</i>
<i>Myosotis asiatica</i>	<i>Caltha palustris var. palustris</i>
<i>Oxytropis nigrescens</i> var. <i>nigrescens</i>	<i>Carex adelostoma</i>
<i>Oxytropis viscosa</i> var. <i>subsucculenta</i>	<i>Carex arcta</i>
<i>Parrya nudicaulis</i>	<i>Carex deflexa</i>
<i>Phleum alpinum</i>	<i>Carex diandra</i>
<i>Phlox richardsonii</i> ssp. <i>richardsonii</i>	<i>Carex disperma</i>
<i>Poa lanata</i>	<i>Carex leptalea</i>
<i>Poa leptocoma</i> ssp. <i>paucispicula</i>	<i>Carex limosa</i>
<i>Potentilla biflora</i>	<i>Carex livida</i> var. <i>radicaulis</i>
<i>Potentilla uniflora</i>	<i>Carex media</i>
<i>Ranunculus karelinii</i>	<i>Carex praticola</i>
<i>Salix hastata</i>	<i>Carex trisperma</i>
<i>Salix phlebophylla</i>	<i>Castilleja septentrionalis</i>
<i>Saxifraga eschscholtzii</i>	<i>Chenopodium capitatum</i>
<i>Saxifraga nelsoniana</i> ssp. <i>nelsoniana</i>	<i>Chenopodium salinum</i>
<i>Saxifraga serpyllifolia</i>	<i>Coeloglossum viride</i> var. <i>virescens</i>
<i>Saxifraga sibirica</i>	<i>Crepis elegans</i>
<i>Sedum integrifolium</i> ssp. <i>integrifolium</i>	<i>Cryptogramma stelleri</i>
<i>Selaginella sibirica</i>	<i>Cypripedium guttatum</i> ssp. <i>guttatum</i>
<i>Senecio cymbalaria</i>	<i>Cypripedium passerinum</i>
<i>Senecio fuscatus</i>	<i>Delphinium glaucum</i>
<i>Senecio yukonensis</i>	<i>Draba aurea</i>
<i>Silene acaulis</i> var. <i>subacaulescens</i>	<i>Draba cana</i>
<i>Silene repens</i> ssp. <i>purpurata</i>	<i>Draba incana</i>
<i>Smelowskia calycina</i> var. <i>media</i>	<i>Draba nemorosa</i> var. <i>leiocarpa</i>
<i>Taraxacum lyratum</i>	<i>Dryas integrifolia</i> ssp. <i>sylvatica</i>
<i>Thalictrum alpinum</i>	<i>Elymus trachycaulus</i>
<i>Thlaspi arcticum</i>	<i>Equisetum palustre</i>
	<i>Equisetum pratense</i>
	<i>Erigeron glabellus</i> ssp. <i>pubescens</i>
	<i>Erigeron lonchophyllum</i>
	<i>Erigeron yukonensis</i>
	<i>Eriophorum gracile</i>
	<i>Fragaria virginiana</i> ssp. <i>glaucia</i>
	<i>Galium boreale</i>
	<i>Galium labradoricum</i>
	<i>Gentianella amarella</i> ssp. <i>acuta</i>
	<i>Gymnocarpium disjunctum</i>
	<i>Heracleum lanatum</i>
	<i>Juncus alpinoarticulatus</i> ssp. <i>nodulosus</i>
	<i>Juncus subtilis</i>

## BOREAL

<i>Agoseris glauca</i> var. <i>dasycephala</i>	
<i>Allium schoenoprasum</i> var. <i>sibiricum</i>	
<i>Alnus incana</i>	
<i>Amerorchis rotundifolia</i>	
<i>Antennaria microphylla</i>	
<i>Aquilegia brevistyla</i>	
<i>Arctagrostis arundinacea</i>	
<i>Arctostaphylos uva-ursi</i>	
<i>Arnica chamissonis</i> ssp. <i>foliosa</i>	
<i>Asplenium trichomanes-ramosum</i>	

*Listera borealis*  
*Lonicera villosa* var. *calvescens*  
*Lysimachia thyrsiflora*  
*Mertensia paniculata* var. *paniculata*  
*Nuphar lutea* ssp. *polysepala*  
*Oxytropis splendens*  
*Pedicularis macrodonta*  
*Pedicularis verticillata*  
*Phegopteris connectilis*  
*Polygonum alpinum*  
*Polygonum amphibium* var. *stipulaceum*  
*Polygonum caurianum* ssp. *caurianum*  
*Polypodium virginianum*  
*Polystichum lonchitis*  
*Populus tremuloides*  
*Potentilla multifida*  
*Potentilla pensylvanica* var. *pectinata*  
*Primula incana*  
*Primula mistassinica*  
*Ranunculus sceleratus* var. *multifidus*  
*Ribes glandulosum*  
*Rumex aquaticus* var. *fenestratus*  
*Sagittaria cuneata*  
*Salix argyrocarpa*  
*Salix bebbiana*  
*Salix brachycarpa* ssp. *brachycarpa*  
*Salix cordata*  
*Salix exigua* ssp. *interior*  
*Salix pedicellaris*  
*Scheuchzeria palustris* ssp. *americana*  
*Sedum rosea*  
*Senecio pauciflorus*  
*Senecio pauperculus*  
*Silene taylorae*  
*Sisyrinchium montanum*  
*Solidago macrophylla*  
*Solidago simplex* var. *nana*  
*Trientalis borealis*  
*Valeriana capitata*  
*Viburnum edule*  
*Viola selkirkii*

#### MONTANE

*Botrychium ascendens*  
*Sagina saginoides*

#### COASTAL

*Arabidopsis salsuginea*  
*Atriplex gmelinii*  
*Carex paleacea*  
*Eleocharis kamtschatica*  
*Ligusticum scoticum* var. *scoticum*  
*Plantago eriopoda*  
*Poa eminens*  
*Polygonum caurianum* ssp. *hudsonianum*  
*Primula borealis*  
*Puccinellia kurilensis*  
*Scirpus rufus* var. *neogaeus*  
*Spergularia canadensis*  
*Suaeda calceoliformis*  
*Zostera marina*

#### AQUATIC

*Callitricha anceps*  
*Ceratophyllum demersum*  
*Lemna trisulca*  
*Limosella aquatica*  
*Myriophyllum alterniflorum*  
*Myriophyllum verticillatum*  
*Potamogeton friesii*  
*Potamogeton pectinatus*  
*Potamogeton richardsonii*  
*Potamogeton strictifolius*  
*Potamogeton zosteriformis*  
*Sparganium angustifolium*  
*Sparganium minimum*  
*Subularia aquatica* ssp. *americana*  
*Utricularia ochroleuca*  
*Zannichellia palustris*







## Recent *Syllogeus* Titles / Titres récents dans la collection *Syllogeus*

- No. 54 McAllister, Don E., Brad J. Parker and Paul M. McKee (1985)  
RARE, ENDANGERED AND EXTINCT FISHES IN CANADA. 192 p.
- No. 55 Harrington, C.R., editor (1985)  
CLIMATIC CHANGE IN CANADA 5. 482 p.
- No. 56 Brodo, I.M. (1985)  
GUIDE TO THE LITERATURE FOR THE IDENTIFICATION OF NORTH AMERICAN LICHENS. 39 p.
- No. 57 Vladkov, Vadim D. (1985)  
DOES NEOTENY OCCUR IN Holarctic LAMPREYS (PETROMYZONTIDAE)? 13 p.
- No. 58 Schriever, G., H.K. Schminke and C.-t. Shih, editors (1985)  
PROCEEDINGS OF THE SECOND INTERNATIONAL CONFERENCE OF COPEPODA, OTTAWA, CANADA, 13-17 AUGUST 1984. 662 p.
- No. 59 Straley, G.B., R.L. Taylor and G.W. Douglas (1985)  
THE RARE VASCULAR PLANTS OF BRITISH COLUMBIA. 165 p.
- No. 60 Frank, P.G., J.A. Fournier and J. Madill (1985)  
TYPE SPECIMENS OF INVERTEBRATES (MOLLUSCA AND ARTHROPODA EXCLUDED) IN THE NATIONAL MUSEUM OF NATURAL SCIENCES, NATIONAL MUSEUMS OF CANADA. 147 p.
- No. 61 Noble, W.J., T. Ahti, G.F. Otto and I.M. Brodo (1987)  
A SECOND CHECKLIST AND BIBLIOGRAPHY OF THE LICHENS AND ALLIED FUNGI OF BRITISH COLUMBIA. 95 p.
- No. 62 Ireland, R.R. and G. Bellolio-Trucco (1988)  
ILLUSTRATED GUIDE TO SOME HORNWORTS, LIVEWORTS AND MOSES OF EASTERN CANADA. 205 p.
- No. 63 Soper, James H., Claude E. Garton, and David R. Given (1989)  
FLORA OF THE NORTH SHORE OF LAKE SUPERIOR (VASCULAR PLANTS OF THE ONTARIO PORTION OF THE LAKE SUPERIOR DRAINAGE BASIN). 61 p.
- No. 64 McAllister, Don E. (1990)  
A LIST OF THE FISHES OF CANADA / LISTE DES POISSONS DU CANADA. 310 p.
- No. 65 Bouchard, André, Stuart Hay, Luc Brouillet, Martin Jean and Isabelle Saucier (1991)  
THE RARE VASCULAR PLANTS OF THE ISLAND OF NEWFOUNDLAND / LES PLANTES VASCULAIRES RARES DE L'ÎLE DE TERRE-NEUVE. 165 p.
- No. 66 Youngman, Phillip M. (1991)  
A BIBLIOGRAPHY OF MUSTELIDS: PART IX: EUROPEAN MINK. 45 p.
- No. 67 Day, Robin, and Paul M. Catling (1991)  
THE RARE VASCULAR PLANTS OF PRINCE EDWARD ISLAND. 65 p.
- No. 68 Coad, Brian W. (1991)  
FISHES OF THE TIGRIS-EUPHRATES BASIN: A CRITICAL CHECKLIST. 49 p.
- No. 69 Wong, Pak Yau and Irwin M. Brodo (1992)  
THE LICHENS OF SOUTHERN ONTARIO, CANADA. 79 p.
- No. 70 Ireland, Robert R. and Linda M. Ley (1992) 138 p.  
ATLAS OF ONTARIO MOSES
- No. 71 Balkwill, Darlene McCuaig and Stephen L. Cummins (1992)  
A GUIDE TO THE IDENTIFICATION OF POSTCRANIAL BONES OF BOS TAURUS AND BISON BISON. 277 p.

CALIF ACAD OF SCIENCES LIBRARY



3 1853 00040 5477

ISBN 0-660-13071