



Mac Pitcher



Michael Burzynski



Steve Sayles



Michael Burzynski

# SSAC

Species Status Advisory Committee

Annual Report 2008-2009



## **THE COMMITTEE**

The Species Status Advisory Committee (SSAC) was established under the *Endangered Species Act*, which was passed on December 13, 2001. Its role is to review and recommend to the responsible Minister designations and re-designations of species based on the best scientific, traditional and local ecological knowledge available.

## **MEMBERSHIP**

The Act allows for a committee of up to nine members. The committee started the year with seven members. Ms. Nathalie Djan-Chékar (Chair) declined re-appointment in September 2008. Dr. Tom Knight and Mr. Roger Gallant were appointed for two-year terms, effective September 1, 2008. Dr. Christine Campbell was confirmed as Committee Chair. Therefore at the end of 2008-09, the committee consisted of eight members:

Dr. Christine Campbell (Chair) - Aquatic invertebrates  
Mr. Roger Gallant – Traditional ecological knowledge, fish  
Dr. Luise Hermanutz - Plant ecology, conservation biology  
Dr. Thomas Knight – Freshwater fish, small mammals  
Mr. John E. Maunder - General natural history, plants, invertebrates  
Dr. William Montevecchi - Birds  
Ms. Shelley Pardy-Moores - Terrestrial invertebrates  
Mr. Mac Pitcher – General natural history, lichens

The Committee wishes to thank Nathalie Djan-Chékar for her dedication and hard work on behalf of the Committee over the past several years, particularly in her filling the role of co-Chair of the Committee.

An additional member, with expertise in the area of mosses and liverworts, is currently being sought. A recommendation concerning this new member was submitted to the Minister in 2008-09.

The secretariat to the SSAC is provided by the Wildlife Division. The role of the secretariat is to help organize meetings and keep minutes, arrange contracts, and provide other necessary logistical support to the Committee. The current secretariat is managed by:

Ms. Shelley Garland, Ecosystem Management Ecologist  
Biodiversity and Endangered Species Program, Wildlife Division  
Department of Environment and Conservation  
PO Box 2007, 117 Riverside Dr.  
Corner Brook, NL, A2H 7S1

## **THE MINISTER & THE DEPARTMENT**

Responsibility for species at risk, the *Endangered Species Act* and the SSAC rests with the Department of Environment and Conservation. The Honorable Charlene Johnson is the Minister

responsible for the Department. The Honorable Clyde Jackman served as Acting Minister for part of the year as Minister Johnson was on sick leave. The Committee met with Minister Johnson in June 2008. Items of discussion included delays in listing decisions regarding previous recommendations, data deficiency and the importance of Wildlife Division in data collection, timelines for drafting Annual Reports and Annual Activity Reports, and recommendations for appointments to the SSAC.

## **MEETINGS AND BUSINESS**

The Committee met four times in 2008-09: April 28, 2008 via teleconference, October 1 and 2, 2008 in Corner Brook, February 26 and 27, 2009 in St. John's and March 26, 2009 via teleconference. A considerable amount of time was also spent by members outside the confines of the meetings reviewing and revising status reports, developing priority lists, developing plans and reports as required under the *Transparency and Accountability Act*, contacting potential candidates for SSAC membership and preparing correspondence to the Minister. Items discussed related to the determination of priority species for which status reports should be prepared, review of reports and carrying out species assessments, and selection of new committee members. Considerable time was also spent on the transparency and accountability process, and the issue of timely response to status recommendations.

## **PROCEDURES**

While every effort is made to convene meetings only when all members can be present, a quorum of 50%+1 of the membership will be the minimum required to hold a meeting.

Voting on procedural matters is on the basis of a simple majority of members present. However, voting on status recommendations is on the basis of a two-thirds majority of all members, whether present or not.

## **CRITERIA**

The criteria for decisions on the level of risk of a species (endangered, threatened, vulnerable) follow those of the federal Committee on the Status of Endangered Wildlife in Canada (COSEWIC), which in turn are based on those of the International Union for the Conservation of Nature and Natural Resources (IUCN) with minor adjustments for local circumstances and conditions. A copy of the COSEWIC criteria can be found in Appendix 1.

## **STATUS REPORTS AND PRIORITY LISTS**

Some time was expended in preparing a protocol for the production of SSAC status reports. The status report template designed by the SSAC can be found in Appendix 2. All finalized SSAC status reports and all updated priority lists are available on the SSAC website at:

[http://www.env.gov.nl.ca/env/wildlife/wildatrisk/ssac\\_mainpage.htm](http://www.env.gov.nl.ca/env/wildlife/wildatrisk/ssac_mainpage.htm).

### **Reports commissioned in 2007-08, final review and assessment in 2008-09**

- Graceful Felt Lichen (*Erioderma mollissimum*). This report was commissioned upon the recommendation of the Minister in response to a request for an emergency listing for this species. **Recommendation provided to the Minister on May 8, 2008.**
- Eleven vascular plant species. **Recommendations provided to the Minister on May 29, 2008:**
  - Bodin's Milkvetch (*Astragalus bodinii*)
  - Oval-leaved Creeping Spearwort (*Ranunculus flammula* var. *ovalis*)
  - Rock Dwelling Sedge (*Carex petricosa* var. *misandroides*)
  - Shaved Sedge (*Carex tonsa* var. *tonsa*)
  - Cutleaf Fleabane (*Erigeron compositus*)
  - Sharpleaf Aster (*Oclemena acuminata*)
  - Alaska Rein Orchid (*Platanthera foetida*)
  - Water Pygmyweed (*Tillaea aquatica*)
  - Tradescant's Aster (*Symphyotrichum tradescantii*)
  - Gmelin's Watercrowfoot (*Ranunculus gmelinii*)
  - Feathery False Solomon's Seal (*Maianthemum racemosum* subsp. *racemosum*)

### **Reports commissioned and reviewed in 2007-08, undergoing revision and reassessment**

- Lindley's Aster (*Symphyotrichum ciliolatum*). New information has recently come to light. Therefore, this report will be re-assessed in 2009-10, following significant revision.

### **Reports commissioned and reviewed in 2008-09**

#### Mammals

- Arctic Hare (*Lepus arcticus*); author: Dr. Brian Hearn

#### Birds

- Yellow bellied Sapsucker (*Sphyrapicus varius*); author: Mr. Michael Burzynski
- Bobolink (*Dolichonyx oryzivorus*); author: Ms. Kathrin Munro
- Bank Swallow (*Riparia riparia*); author: Ms. Kathrin Munro

#### Vascular Plants

- Vreeland's Striped Coralroot (*Corallorhiza striata* var. *vreelandii*); author: Mr. Michael Burzynski (**final assessment on March 26, 2009**)

### **Recommendations**

Twelve status recommendations were submitted to Government based on status reports commissioned in the 2007-08 fiscal year. The SSAC recommended that 7 of the species be listed as **Endangered**, 4 species as **Threatened** and 1 species as **Vulnerable** in Newfoundland and Labrador.

**Recommendation: Endangered**

Alaska Rein Orchid (*Platanthera foetida*)  
Cutleaf Fleabane (*Erigeron compositus*)  
Feathery False Solomon's Seal (*Maianthemum racemosum* subsp. *racemosum*)  
Gmelin's Watercrowfoot (*Ranunculus gmelinii*)  
Oval-leaved Creeping Spearwort (*Ranunculus flammula* var. *ovalis*)  
Rock Dwelling Sedge (*Carex petricosa* var. *misandroides*)  
Graceful Felt Lichen (*Erioderma mollissimum*).

**Recommendation: Threatened**

Bodin's Milkvetch (*Astragalus bodinii*)  
Sharpleaf Aster (*Oclemena acuminata*)  
Shaved Sedge (*Carex tonsa* var. *tonsa*)  
Tradescant's Aster (*Symphyotrichum tradescantii*)

**Recommendation: Vulnerable**

Water Pygmyweed (*Tillaea aquatica*)

All of the twelve species recommendations submitted to Government in 2008-09 , plus three species recommendations submitted in 2006-07 (Mackenzie's Sweetvetch, Rattlesnakeroot and Northern Bog Aster) are undergoing internal government review (see attached Appendix 3). Ministerial correspondence indicates a decision on these species should be forthcoming in the near future.

A total of five new status reports were reviewed and revised during 2008-09. The status of Vreeland's Striped Coralroot (*Corallorhiza striata* var. *vreelandii*) was assessed prior to March 31, 2009. The other four reports were to be assessed early in the 2009-10 year, following revisions and updated information from agencies such as Canadian Wildlife Service. Written recommendations on these five species will be submitted to Government in the upcoming 2009-10 fiscal year, in addition to the revised report on Lindley's Aster (*Symphyotrichum ciliolatum*).

See Table 1 for further details. For a list of SSAC status reports from previous years and their current status within the listing process see Appendix 3.

**Table 1: SSAC Species Status Reports Assessed or Reviewed in 2008-2009**

<b>Common Name</b>	<b>Scientific Name</b>	<b>Assessment Date</b>	<b>Date Minister Notified:</b>	<b>Recommended Status</b>
<b>Bodin's Milkvetch</b>	<i>Astragalus bodinii</i>	<b>20-Feb-08</b>	<b>29-May-08</b>	<b>Threatened</b>
<b>Shaved Sedge</b>	<i>Carex tonsa</i> var. <i>tonsa</i>	<b>20-Feb-08</b>	<b>29-May-08</b>	<b>Threatened</b>
<b>Cutleaf Fleabane</b>	<i>Erigeron compositus</i>	<b>20-Feb-08</b>	<b>29-May-08</b>	<b>Endangered</b>
<b>Feathery False Solomon's Seal</b>	<i>Maianthemum racemosum</i> subsp. <i>racemosum</i>	<b>20-Feb-08</b>	<b>29-May-08</b>	<b>Endangered</b>
<b>Sharpleaf Aster</b>	<i>Ocelmenia acuminata</i>	<b>20-Feb-08</b>	<b>29-May-08</b>	<b>Threatened</b>
<b>Alaska Rein Orchid</b>	<i>Platanthera foetida</i>	<b>20-Feb-08</b>	<b>29-May-08</b>	<b>Endangered</b>
<b>Gmelin's Watercrowfoot</b>	<i>Ranunculus gmelinii</i>	<b>20-Feb-08</b>	<b>29-May-08</b>	<b>Endangered</b>
<b>Tradescant's Aster</b>	<i>Symphotrichum tradescantii</i>	<b>20-Feb-08</b>	<b>29-May-08</b>	<b>Threatened</b>
<b>Water Pygmyweed</b>	<i>Tillaea aquatica</i>	<b>20-Feb-08</b>	<b>29-May-08</b>	<b>Vulnerable</b>
<b>Rock Dwelling Sedge</b>	<i>Carex petricosa</i> var. <i>misandroides</i>	<b>20-Feb-08</b>	<b>29-May-08</b>	<b>Endangered</b>
<b>Oval-leaved Creeping Spearwort</b>	<i>Ranunculus flammula</i> var. <i>ovalis</i>	<b>20-Feb-08</b>	<b>29-May-08</b>	<b>Endangered</b>
<b>Graceful Felt Lichen</b>	<i>Erioderma mollissimum</i>	<b>28-Apr-08</b>	<b>8-May-08</b>	<b>Endangered</b>
Arctic Hare	<i>Lepus arcticus</i>	Report is still in progress and will be assessed in 2009-10		
Bobolink	<i>Dolichonyx oryzivorus</i>	Report is completed and will be assessed in 2009-10		
Bank Swallow	<i>Riparia riparia</i>	Report is completed and will be assessed in 2009-10		
Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>	Report is completed and will be assessed in 2009-10		
Vreeland's Striped Coralroot	<i>Corallorhiza striata</i> var. <i>vreelandii</i>	26-Mar-09	Recommendation will be forwarded to Minister in 2009-10	

## **Species identified as priority for upcoming status assessment reports**

### Vascular Plants

- Mountain Bladder Fern (*Cystopteris montana*)
- Eastern Star Sedge (*Carex radiata*)

### Lichens

- Matchstick Lichen (*Pilophorus fibula*)
- Wrinkled Shield Lichen (*Pannaria lurida* ssp. *russellii*)

## **THE FUTURE**

Whenever possible when commissioning status reports for species on the priority lists, the SSAC will seek out individual contractors with detailed knowledge about the species under consideration. The number of status reports that can be commissioned and evaluated will depend primarily upon the budget, the availability of authors and the capacity of the Committee to review and assess the reports. The priority for the upcoming 2009-2010 fiscal year will be to find authors and commission reports for four new species.

## **APPENDICES**

- Appendix 1. COSEWIC criteria.
- Appendix 2. Status Report Template
- Appendix 3. Chronology of Assessments by the Species Status Advisory Committee



# Appendix 1.

## COSEWIC quantitative criteria and guidelines for the status assessment of species.

	Endangered	Threatened
<b>A. Declining Total Population</b>		
Reduction in population size based on any of the following 4 options and specifying a-e as appropriate:		
	> 70 %	> 50 %
(1) population size reduction that is observed, estimated, inferred, or suspected in the past 10 years or 3 generations, whichever is longer, where the causes of the reduction are clearly reversible AND understood AND ceased, based on (and specifying) any combination of a-e below.		
	> 50 %	> 30 %
(2) population size reduction that is observed, estimated, inferred or suspected over the last 10 years or 3 generations, whichever is longer, where the reduction or its causes may not have ceased OR may not be understood OR may not be reversible, based on (and specifying) any combination of a-e below.		
(3) population size reduction that is projected or suspected to be met within in the next 10 years or 3 generations, whichever is longer (up to a maximum of 100 years), based on (and specifying) any combination of b-e below.		
(4) population size reduction that is observed, estimated, inferred, projected or suspected over any 10 year or 3 generation period, whichever is longer (up to a maximum of 100 years), where the time period includes both the past and the future, AND where the reduction or its causes may not have ceased OR may not be understood OR may not be reversible, based on (and specifying) any of a-e below.		
	<ul style="list-style-type: none"> <li>a) direct observation</li> <li>b) an index of abundance appropriate for the taxon</li> <li>c) a decline in area of occupancy, extent of occurrence and/or quality of habitat</li> <li>d) actual or potential levels of exploitation</li> <li>e) the effects of introduced taxa, hybridisation, pathogens, pollutants, competitors or parasites</li> </ul>	

### B. Small Distribution, and Decline or Fluctuation

1. Extent of occurrence	< 5,000 km <sup>2</sup>	< 20,000 km <sup>2</sup>
Or		
2. Area of occupancy	< 500 km <sup>2</sup>	< 2,000 km <sup>2</sup>
For either of the above, specify at least two of a-c:		
(a) either severely fragmented or known to exist at # locations	≤ 5	≤ 10
(b) continuing decline observed, inferred or projected in any of the following:		
i) extent of occurrence		
ii) area of occupancy		
iii) area, extent and/or quality of habitat		
iv) number of locations or populations		
v) number of mature individuals		
(c) extreme fluctuations in any of the following:	> 1 order of magnitude	> 1 order of magnitude
i) extent of occurrence		
ii) area of occupancy		
iii) number of locations or populations		
iv) number of mature individuals		

### C. Small Total Population Size and Decline

Number of mature individuals	< 2,500	< 10,000
and 1 of the following 2:		
(1) an estimated continuing decline rate of at least	20% in 5 years or 2 generations (up to a maximum of 100 years in the future)	10% in 10 years or 3 generations (up to a maximum of 100 years in the future)
(2) continuing decline, observed, projected, or inferred, in numbers of mature individuals and at least one of the following (a-b):		

	<b>Endangered</b>	<b>Threatened</b>
(a) fragmentation-- population structure in the form of one of the following:	(i) no population estimated to contain >250 mature individuals  (ii) at least 95 % of mature individuals in one population	(i) no population estimated to contain >1,000 mature individuals  (ii) all mature individuals are in one population
(b) extreme fluctuations in the number of mature individuals		

#### D. Very Small Population or Restricted Distribution

(1) Number of mature individuals	< 250	< 1,000
(2) Applies only to threatened: Population with a very restricted area of occupancy or number of locations such that it is prone to the effects of human activities or stochastic events within a very short time period in an uncertain future, and thus is capable of becoming highly endangered or even extinct in a very short time period.	(not applicable)	area of occupancy typically < 20 km <sup>2</sup> or number of locations < 5

#### E. Quantitative Analysis

Indicating the probability of extinction in the wild to be at least:	20% in 20 years or 5 generations, whichever is longer (up to a maximum of 100 years)	10% in 100 years
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#### Special Concern:

those species that are particularly sensitive to human activities or natural events but are not endangered or threatened species.

Species may be classified as being of Special Concern if:

- the species has declined to a level of abundance at which its persistence is increasingly threatened by genetic, demographic or environmental stochasticity, but the decline is not sufficient to qualify the species as Threatened; or
- the species is likely to become Threatened if factors suspected of negatively influencing the persistence of the species are neither reversed nor managed with demonstrable effectiveness; or
- the species is near to qualifying, under any criterion, for Threatened status; or
- the species qualifies for Threatened status but there is clear indication of rescue effect from extra-limital populations.

#### Examples of reasons why a species may qualify for "Special Concern":

- ! A species that is particularly susceptible to a catastrophic event (e.g., a seabird population near an oil tanker route)
- ! A species with very restricted habitat or food requirements for which a potential threat to that habitat or food supply has been identified (e.g., a bird that forages primarily in old-growth forest, a plant that grows primarily on undisturbed sand dunes, a fish that spawns primarily in estuaries, a snake that feeds primarily on a crayfish whose habitat is threatened by siltation)
- ! A recovering species no longer considered to be Threatened or Endangered but not yet clearly secure

#### Examples of reasons why a species may not qualify for "Special Concern":

- ! A species existing at low density in the absence of recognized threat (e.g., a large predatory animal defending a large home range or territory)
- ! A species existing at low density that does not qualify for Threatened status for which there is a clear indication of rescue effect

**Appendix 2. Status Report Template.**

DRAFT

**The Status of**  
**[English Common Name]**  
(*[Scientific Name]* no author or date here)

**in Newfoundland and Labrador**

[Image of taxon]

Photo: [Photographer; plus any permissions required]

prepared for  
**THE SPECIES STATUS ADVISORY COMMITTEE**

by  
[Author Name]  
[Author Address]

Submitted: [Date]

[Format report exactly as indicated in this template, except where impractical. Arial font; use 12pt for main body of text. Use Canadian English; not American English. Always italicize the Latin term “*et al.*”]

## STATUS REPORT

[Full Scientific Name, including author; in general, use the SSAC-specified “designatable unit” (ie. species, subspecies, variety, etc.); however, the report writer may suggest a modification of the specified “designatable unit” if report-based research suggests a better alternative]

[Common Name (English)]; [Common Name (French, aboriginal, and/or local) – if available] [Refine according to the level of “designatable unit” used, if required (ie. Newfoundland Arctic Hare)]

[Name of population(s) (if applicable)]

Synonyms: [Full Scientific Name, including author; list several entries, if applicable; synonyms should be assignable to the “designatable unit” only; clear *errors* should be excluded, but may be discussed in the “Systematic/Taxonomic Clarifications” section]

Family: [Latin Name] [(Common Name)]

Life Form: [examples: “Herbaceous, perennial, amphibious forb”; “Animal, vertebrate, bird, woodpecker” ... there is no exact taxonomy here.].

### **[Systematic/Taxonomic Clarifications (if required)]**

[A systematic/taxonomic clarification may be critical to properly understanding the precise taxon being discussed, and/or to facilitate more precise delimitation of global, national or even provincial distributions.

A brief entry should be inserted here if such is critical to the general understanding of the main text, and to the ability of the reader to assess the status of the species being reported upon.

A more detailed systematic/taxonomic clarification may, nevertheless, be critical to a more comprehensive technical understanding of the subject as a whole; if so, a more detailed entry should be placed in Appendix B.

In some cases, both a brief entry and a more detailed entry may be useful.]

## Distribution

**Global:** (Figure x [if required])

North America (excluding Canada) [if the taxon being reported upon occurs only in Canada, simply state that fact]:

[Country: vertically list country headings: e.g.: United States, Greenland, Mexico, St.-Pierre et Miquelon (France)] [For each country, include a general statement of national distribution, followed by a comprehensive listing of individual states where the taxon being reported upon is found (if applicable), in logical geographical order]

[Other Continents or Individual Political Jurisdictions [if required] [vertically list continents, and included countries, where the taxon is found, in logical geographical order]

**National** [i.e. Canada]: (Figure x) [if required]

[Include a general statement of national distribution, followed by a list of provinces where the taxon is found, in logical geographical order]

**Provincial:** (Figure x)

[List all known occurrence localities (or, if localities are particularly numerous, list localities more generally), in logical geographical order.]

[List localities separately for Newfoundland, and for Labrador]

[Note any qualifications, and/or discrepancies.]

[In all cases, distribution entries should refer only to the specific “designatable unit” being reported upon; not to the “species as a whole”... unless there is some specific reason for doing so.]

[In all cases, if a taxon is migratory and/or nomadic, distinguish between breeding and wintering/other distributions; if appropriate, also note distribution during the migratory period.]

[In all cases, cite references.]

**Annotated Global Range Map** [if required; show overall global species range, broken down into lower taxon range units if such exist]

Figure x. Global distribution of [taxon]

**Annotated National Range Map** [if required; show overall national species range, broken down into lower taxon range units if such exist]

Figure x. National distribution of [taxon]

### **Annotated Provincial Range Map**

[Good quality outline map of Newfoundland and/or Labrador, identifying individual known occurrence localities. If a migratory/nomadic taxon, distinguish between breeding/nesting localities, and other occurrence localities if required. Show overall provincial species range, broken down into lower taxon range units if such exist]

[With regard to St.-Pierre et Miquelon: since the archipelago is geographically part of Newfoundland, it is generally useful to map and discuss SPM distributions as if they were part of the political entity of Newfoundland. ]

Figure x. Known occurrence localities for [taxon] in Newfoundland and Labrador:  
[List localities.]

[For all maps: if a map is from the literature or from the Internet, obtain written permission to use, and record that permission in the figure caption; otherwise re-draft. Make map symbols large enough to be seen properly; if colours are used, make sure that they are of different enough contrast to be distinguishable in black-and-white printed copies; treat breeding and “other” distributions separately (ie. use different symbols); additionally, for provincial map/s, treat historical and recent distributions, as well as verified and unverified records, separately; if things get too complicated, add additional maps.]

### **Description**

[BRIEFLY describe the organism, in a way that presents a good visual impression to the layperson. If deemed to be useful, a more detailed description, including photographs, may be placed in Appendix B. Obtain permission to use all photos, if necessary, and credit appropriately.]

## Habitat

[Briefly describe the habitat. If a migratory/nomadic species, distinguish between breeding/nesting habitats and other occurrence-related habitats. Begin with a general description of habitat throughout the taxon's range. Follow up with a more detailed description of its habitat within Newfoundland and Labrador. If habitat differs significantly between occurrence localities, it may be necessary to describe habitat specifically for each locality. A photo of the organism in its habitat may be useful to include here, if the habitat does not vary too greatly between occurrence localities. Obtain permission to use all photos, if necessary, and credit appropriately. If appropriate, a more detailed description, including photographs, may be placed in Appendix B. For plants, and for aquatic taxa in general, soil and water chemistry may be a particularly important factor. Climatic factors, both micro- and macro- should also be discussed. For smaller organisms, microhabitat/microclimate may be just as significant, or even more significant, than gross habitat/climate.]

## Overview of Biology

[Briefly outline life history details, demographic information, generation time, and ecology, *as each is pertinent to conservation*. If appropriate, a more detailed description may be placed in Appendix B.]

## Population Size and Area of Occupancy

[Briefly describe present population size, and area of occupancy [make sure you understand the definition of "area of occupancy"], for each Provincial occurrence locality, where this is possible. Where populations are dispersed, a direct calculation of AO may not be possible; however, in some cases, proxies may be useful, such as the estimated total area of several individual territories or home ranges. A general statement addressing the entire/larger range of the taxon may also be useful. For migratory and/or nomadic taxa, the population size and area of occupancy entries may need specific comment. Briefly discuss methodologies for arriving at the figures presented, where applicable. Information could be provided in table format if appropriate. Ensure that the information from this report section both documents and agrees with that also placed in the technical summary, and in other related report sections.]

## **Aboriginal, Traditional and Local Ecological Knowledge**

[Outline any known applicable aboriginal, traditional and/or local ecological knowledge. The report writer is responsible for contacting local aboriginal resources.]

## **Trends**

[Describe known trends in distribution, population, and habitat. If sufficient data are available, a graphical figure should be included. Ensure that the information from this report section both documents and agrees with that also placed in the technical summary, and in other related report sections.]

## **Threats and Limiting Factors**

[Outline actual or imminent threats and limiting factors affecting populations or habitats; if a taxon is migratory and/or nomadic, also treat threats and limiting factors within breeding versus wintering/other distributions separately; if appropriate also note threats and limiting factors during the migratory/nomadic period. Briefly indicate scale and immediacy of threats. A RENEW Threat Assessment Table, which ranks threats by value, may be useful. Describe any additional potential threats. Consider threats to the taxon in all parts of its range and life cycle. Briefly present the results of any available Population Viability Analysis (PVA). A more detailed analysis may be placed in Appendix B.]

[If “critical habitat” (habitat necessary for the survival of the species) is identified/identifiable, include description and provincial location. Any precise location information should be placed in Appendix A.]

## **Existing Protection**

[Outline existing protection; including occurrence in protected or management areas, or under stewardship agreements.]

## **Special Significance**

[Outline any known scientific or cultural significance of the taxon.]



## **Cited References**

[Provide a complete list of literature and/or similar references that are cited either within the main text or within any of the included appendices. List references with a space between each, using hanging indents.

Examples for literature citations:

Arnason, T., R. J. Hebda, and T. Johns. 1981. Use of plants for food and medicine by native peoples of eastern Canada. *Canadian Journal of Botany* 59: 2189-2325.

Fernald, M. L. 1950. *Gray's Manual of Botany*. Eighth edition. American Book Company. lxiv + 1632 pp.

Examples for Web citations (record full document title, full URL, and "date last accessed:")

Meades, S. J., S. G. Hay, and L. Brouillet. 2000. Annotated checklist of the vascular plants of Newfoundland and Labrador.  
<http://digitalnaturalhistory.com/meades.htm> (Last accessed October 15, 2007)

DeGrace. J. 1974. Limestone resources of Newfoundland and Labrador. Report 74-2. Department of Mines and Energy, Mineral Development Division. St. John's, Newfoundland. [web version available at:  
<http://www.nr.gov.nl.ca/mines&en/publications/geology/DeGrace.pdf> (Last accessed October 13, 2007)]

## **Personal Communications** [if required]

[For each entry, include professional affiliations and a statement of relevant expertise.]

## **Additional Sources of information** [if required]

## **Collections Examined**

[List by institution, citing the number of specimen lots examined.]

## Rank or Status

[A suggested format is presented below. Use the latest Newfoundland and Labrador rank/status data, available from the Provincial Wildlife Division. Additional data, for adjacent jurisdictions, are available from sources including (but not necessarily exclusive to) NatureServe Explorer, and Canadian Endangered Species Conservation Council (CESCC). 2006. Wild Species 2005. Cite sources used.]

<b>Global</b>	
G-rank	
IUCN	
<b>National</b>	
N-rank	
National General Status	[e.g. May be at risk (2)]
COSEWIC	
<b>Provincial</b>	
Provincial General Status	[e.g. May be at risk (2)]
Newfoundland S-rank	
Newfoundland General Status	[e.g. May be at risk (2)]
Labrador S-rank	
Labrador General Status	[e.g. May be at risk (2)]
<b>Adjacent Jurisdictions</b>	
Nova Scotia S-Rank	[e.g. May be at risk (2)]
Nova Scotia General Status	
Prince Edward Island S-Rank	
Prince Edward Island General Status	[e.g. May be at risk (2)]
New Brunswick S-Rank	
New Brunswick General Status	[e.g. May be at risk (2)]
Québec S-Rank	
Québec General Status	[e.g. May be at risk (2)]

## TECHNICAL SUMMARY

<b>Distribution and Population Information</b>	<b>Criteria Assessment</b>
<i>Extent of occurrence (EO)(km<sup>2</sup>) [breeding only]</i>	[make sure you understand the definition of “extent of occurrence” ... the area of an unindented polygon encompassing the entire range of the taxon within in the applicable jurisdiction]
<i>Area of occupancy (AO) (km<sup>2</sup>) [breeding only]</i>	[make sure you understand the definition of “area of occupancy”]
<i>Number of extant locations [breeding only]</i>	
<i>Specify trend in # locations, EO, AO (decline, stable, increasing, unknown)</i>	
<i>Habitat trend: specify declining, stable, increasing or unknown trend in area, extent or quality of habitat</i>	
<i>Generation time (average age of parents in the population) (indicate years, months, days, etc.)</i>	
<i>Number of mature individuals (capable of reproduction) in the Provincial population (or, specify a range of plausible values)</i>	
<i>Total population trend: specify declining, stable, increasing or unknown trend in number of mature individuals or number of populations</i>	
<i>Are there extreme fluctuations (&gt;1 order of magnitude) in number of mature individuals, number of locations, AO and/or EO?</i>	
<i>Is the total population severely fragmented (most individuals found within small and isolated populations) [breeding only]</i>	
<b>Rescue Effect (immigration from an outside source)</b>	
<i>Does species exist elsewhere?</i>	[Y or N]
<i>Status of the outside population(s)?</i>	
<i>Is immigration known or possible?</i>	
<i>Would immigrants be adapted to survive here?</i>	
<i>Is there sufficient habitat for immigrants here?</i>	

[If the insular Newfoundland situation is significantly different from the Labrador situation, or if populations in the two areas are significantly disjunct, include separate entries for each region.]

## **Appendix A. Population Information**

[This appendix contains population-related information in support of the main report. The main report should reference entries in Appendix A, with the exception of detailed maps.]

### **Recently Verified Occurrences/Range Use (recorded within the last 25 years)**

[Verified occurrences consist of observations supported by the collection of a voucher specimen (i.e., a sample to be identified/confirmed by experts and deposited in a museum); or well-documented, diagnostic, photographs; or well-documented field observations meeting the observational standards for verification accepted by reputable workers in any particular field (this is particularly relevant to bird or mammal field observations). Note: records from databases or Internet listings may or may not qualify as “verified” records; knowledgeable judgment is required here; when in doubt, such records should be included in the “Other Observations ...” section.]

[For all occurrence records, where data is available: note [1] dates of observation/collections, [2] general and specific occurrence localities (including lat/long or UTM coordinates (specify datum), where available), [3] habitat, [4] estimates of population size and area of occupancy (where available), [5] observer and/or collector, and [6] collection/museum catalogue number and/or photo reference (if applicable). Where detailed information is available, and where practical, records should be listed by individual site. Otherwise, or in addition, the records may be compiled into one or more summarizing tables.]

[List Newfoundland records separately from Labrador records; also separate St.-Pierre et Miquelon records, if included.]

### **Historical Verified Occurrences/Range Use (recorded prior to the last 25 years)**

[For all occurrence records, where data is available: note [1] dates of observation/collections, [2] general and specific occurrence localities (including lat/long or UTM coordinates (specify datum), where available), [3] habitat, [4] estimates of population size and area of occupancy (where available), [5] observer and/or collector, and [6] collection/museum catalogue number and/or photo reference (if applicable). Where detailed information is available, and where practical, records should be listed by individual site. Otherwise, or in addition, the records may be compiled into one or more summarizing tables.]

[List Newfoundland records separately from Labrador records; also separate St.-Pierre et Miquelon records, if included.]

## **Other Observations (Unverified)**

[While unverified, all records listed here should, nevertheless, be considered to be basically credible. May include some or all records from databases and internet lists; see additional comments above]

[For all occurrence records, where data is available: note [1] dates of observation/collections, [2] general and specific occurrence localities (including lat/long or UTM coordinates (specify datum), where available), [3] habitat, [4] estimates of population size and area of occupancy (where available), [5] observer and/or collector, and [6] collection/museum catalogue number and/or photo reference (if applicable). Where detailed information is available, and where practical, records should be listed by individual site. Otherwise, or in addition, the records may be compiled into one or more summarizing tables.]

[List Newfoundland records separately from Labrador records; also separate St.-Pierre et Miquelon records, if included.]

## **Recent Search Effort (areas searched within the last 25 years with estimate of effort)**

[A comprehensive accounting of the efforts of earlier researchers, and, if applicable, any additional efforts by the author of the report.]

## **Potential Sites Unexplored**

[Analysis of the potential of as yet unexplored sites to harbour the taxon being reported upon.]

## **Appendix B. Supplementary Details**

[This appendix should contain all supplementary details that are considered to be useful additional background support for the main report (other than population-related information, which should be placed in Appendix A). The main report should contain ONLY information that is critically required for actually assigning species status. The main report should reference entries included in Appendix B.]

### **Taxonomic Clarifications**

[Detailed entry, if required]

### **Description**

[Detailed entry, if required. Photos if required.]

### **Habitat**

[Detailed entry, if required. Photos if required.]

### **Biology**

[Detailed entry, if required]

### **Threats and Limiting Factors**

[Detailed entry, if required. Include precise or sensitive information about critical habitat.]

### **Collections Examined**

[Detailed entry, if required. Indicate museum/institutional collections, and catalogue/collection numbers.]

**[Additional entries, as appropriate]**

## Appendix 3

### Chronology of Assessments by the Species Status Advisory Committee

Common Name	Scientific Name	SSAC Assessment	Date of Recommendation:	Decision from Government Required By:**	Designated Status or Reason Not Designated:
Low Northern Rockcress	<i>Neotorularia humilis</i>	Endangered	6-Oct-04		Endangered
Gray-cheeked Thrush	<i>Catharus minimus</i>	Vulnerable	4-Nov-05		Vulnerable
Northern Wheatear	<i>Oenanthe oenanthe leucorhoa</i>	Not at Risk		No recommendation required.	
Caspian Tern	<i>Sterna caspia</i>	Not at Risk		No recommendation required.	
Redwine Caribou Herd	<i>Rangifer tarandus caribou</i> (Redwine Population)	SSAC has decided not to assess populations but species as a whole. This assessment was never completed.			
Blowout Tiger Beetle	<i>Cicindela limbata labradorensis</i>	Data Deficient	Status report being revised due to new information.		
<b>MacKenzie's SweetVetch</b>	<b><i>Hedysarum boreale</i> subsp. <i>mackenzii</i></b>	<b>Endangered</b>	<b>21-Oct-06</b>		<b>Response overdue</b>
<b>Rattlesnakeroot</b>	<b><i>Prenanthes racemosa</i></b>	<b>Endangered</b>	<b>21-Oct-06</b>	<b>21-Jan-06</b>	<b>Response overdue</b>
<b>Northern Bog Aster</b>	<b><i>Symphyotrichum boreale</i></b>	<b>Endangered</b>	<b>21-Oct-06</b>	<b>21-Jan-06</b>	<b>Response overdue</b>
Crowded Wormseed Mustard	<i>Erysimum inconspicuum</i> var. <i>coarctatum</i>	Endangered	21-Oct-06	21-Jan-06	Endangered
Mountain Fern	<i>Thelypteris queipaertensis</i>	Vulnerable	21-Oct-06		Vulnerable
<b>Bodin's Milkvetch</b>	<b><i>Astragalus bodinii</i></b>	<b>Threatened</b>	<b>29-May-08</b>	<b>29-Aug-08</b>	<b>Response overdue</b>
<b>Shaved Sedge</b>	<b><i>Carex tonsa</i> var. <i>tonsa</i></b>	<b>Threatened</b>	<b>29-May-08</b>	<b>29-Aug-08</b>	<b>Response overdue</b>
<b>Cutleaf Fleabane</b>	<b><i>Erigeron compositus</i></b>	<b>Endangered</b>	<b>29-May-08</b>	<b>29-Aug-08</b>	<b>Response overdue</b>
<b>Feathery False Solomon's Seal</b>	<b><i>Maianthemum racemosum</i> subsp. <i>racemosum</i></b>	<b>Endangered</b>	<b>29-May-08</b>	<b>29-Aug-08</b>	<b>Response overdue</b>
<b>Sharpleaf Aster</b>	<b><i>Ocelmena acuminata</i></b>	<b>Threatened</b>	<b>29-May-08</b>	<b>29-Aug-08</b>	<b>Response overdue</b>
<b>Alaska Rein Orchid</b>	<b><i>Platanthera foetida</i></b>	<b>Endangered</b>	<b>29-May-08</b>	<b>29-Aug-08</b>	<b>Response overdue</b>
<b>Gmelin's Watercrowfoot</b>	<b><i>Ranunculus gmelinii</i></b>	<b>Endangered</b>	<b>29-May-08</b>	<b>29-Aug-08</b>	<b>Response overdue</b>
Lindley's Aster	<i>Symphyotrichum ciliolatum</i>	Additional information became available during assessment and status report is being revised.			
<b>Tradescant's Aster</b>	<b><i>Symphyotrichum tradescantii</i></b>	<b>Threatened</b>	<b>29-May-08</b>	<b>29-Aug-08</b>	<b>Response overdue</b>
<b>Water Pygmyweed</b>	<b><i>Tillaea aquatica</i></b>	<b>Vulnerable</b>	<b>29-May-08</b>	<b>29-Aug-08</b>	<b>Response overdue</b>
<b>Rock Dwelling Sedge</b>	<b><i>Carex petricosa</i> var. <i>misandroides</i></b>	<b>Endangered</b>	<b>29-May-08</b>	<b>29-Aug-08</b>	<b>Response overdue</b>
<b>Oval-leaved Creeping Spearwort</b>	<b><i>Ranunculus flammula</i> var. <i>ovalis</i></b>	<b>Endangered</b>	<b>29-May-08</b>	<b>29-Aug-08</b>	<b>Response overdue</b>
<b>Graceful Felt Lichen</b>	<b><i>Erioderma mollissimum</i></b>	<b>Endangered</b>	<b>8-May-08</b>	<b>8-Aug-08</b>	<b>Response overdue</b>

### Appendix 3: Chronology of Assessments by the Species Status Advisory Committee (continued)

Common Name	Scientific Name	SSAC Assessment	Date of Recommendation:	Decision from Government Required By:**	Designated Status or Reason Not Designated:
Arctic Hare	<i>Lepus arcticus</i>				Report is still in progress; species will be assessed in 2009-10
Bobolink	<i>Dolichonyx oryzivorus</i>				Report is completed and species will be assessed in 2009-10
Bank Swallow	<i>Riparia riparia riparia</i>				Report is completed and species will be assessed in 2009-10
Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>				Report is completed and species will be assessed in 2009-10
Vreeland's Striped Coralroot	<i>Corallorhiza striata</i> var. <i>vreelandii</i>				Species has been assessed and recommendation will be forwarded to Minister in 2009-10

\*\*The Lieutenant-Governor in Council shall within 90 days of the minister receiving a written recommendation from SSAC to designate a species, give the minister approval to do one of the following: (a) designate the species under section 7 in the recommended or an equivalent category; (b) designate the species under section 7 in a different category and release to the public the reason for using a different category; or (c) make no designation and release to the public the reason there will be no designation. Section 8 of the Endangered Species Act.

**Based on the legislated time line above a decision from Government is overdue.**