

Annotated Checklist of the Vascular Plants of Newfoundland and Labrador – 2019+

(Updated Jan. 14, 2023)

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Introduction

The Province of Newfoundland and Labrador is a fabulous place to work, or visit, for a botanist. The Province offers a large variety of habitats, a fairly diverse flora composed of Temperate, Boreal, and Arctic elements, large expanses of wilderness mainly untouched by development, and a rich history of excellent botanists who have visited this Province and beautifully described the plant species and communities that occur here. M.L. Fernald was certainly the most influential botanist to visit our shores, travelling here from Harvard with his students, Bayard Long, Harold St. John, and Karl Wiegand, several times between 1899 and 1933, discovering most of our endemic flora, and naming countless new species (see Fernald 1914, 1916, 1924, 1925, 1926; Fernald & Wiegand 1913). Fortunately for us, he left behind a very detailed and thoroughly engrossing account of the field crews travels in Newfoundland and Labrador in his numerous articles in the botanical journal *Rhodora* (see Fernald & Sornborger 1899, Fernald 1911, 1926, 1933). Fernald also identified the plants collected and painted by Mrs. Agnes M. Ayre for her *Wild Flowers of Newfoundland* book (Ayre 1935). But Fernald's most lasting legacy was the 8th edition of *Gray's Manual of Botany* (Fernald 1950), which he unfortunately never saw in print, as he died earlier that same year. The 1970 corrected printing of the 8th edition (Fernald 1970) is the version from which many, if not most, English-speaking botanists in eastern North America learned their botany.

Often referred to as the Father of Botany in Newfoundland and Labrador, Fernald's legacy may be the largest, but he was not the first botanist to visit our Province. The excellent contributions of early explorers, naturalists, and botanists, starting with Banks in 1766 (Lysaght 1971), then Cormack (1823), Bachelot de la Pylaie (1824, 1829), E. Meyer (1830), J.M. Macoun (1891, 1896, 1899), Rev. A.C. Waghorne (1895, 1898a-b), and Robinson & Schrank (1896) were also well documented in their publications and others' accounts of their work (Brassard 1980, Bruton 1928, South 1970, Lysaght 1971).

In the 20th century, such well-known botanists as Delabarre (1902), Wetmore (1923), Abbe (1936, 1938, 1955), Gardner (1937, 1946), Hustich (1939, 1949, 1951, 1963, 1965, 1969, and Hustich & Pettersson 1944, 1945), Polunin (1940, 1948), Gillett (1954, 1960, 1963), J. Rousseau (1952, 1968), Hultén (1958, 1962, 1971), Ahti (1959, 1980), Hämet-Ahti (1971, 1980a, 1981, 1986), and Porsild (1973), contributed greatly to our understanding of the Labrador flora and arctic elements of the Newfoundland flora. The bryophyte and lichen floras were also well documented by Polunin (1947), Ahti (1983), and Brassard (1983, Brassard & Williams 1975).

More recently, several Québec botanists had a major influence on our knowledge of the Newfoundland flora, including Pierre Morisset (1971, Morisset *et al.* 1987) from Laval Univ., and Ernest Rouleau (1949, 1956, 1978) from the Univ. of Montréal, followed by his student, André Bouchard (Bouchard *et al.* (1976, 1978, 1985, 1986, 1987, 1991, 1992), and Bouchard's students, Stuart Hay (Hay *et al.* 1990, 1992, 1994) and Luc Brouillet (Brouillet *et al.* 1997), who produced an amazing amount of information on the flora of western Newfoundland and Gros Morne National Park, in particular.

Scientists with the Newfoundland office of the Canadian Forest Service also contributed greatly to the knowledge of our flora and plant communities. The combined works of A.W.H. (Ton) Damman (1963, 1964, 1965, 1967, 1976, 1979), W.C. Wilton (1965), F.C. Pollett (1972, Pollett *et al.*, 1970, 1973, 1980), W.J. Meades (1973, 1975, 1983, 1986, 1987, W.J. Meades & Moore 1989), E.D. (Doyle) Wells (1981, 1983a; Wells *et al.* 1983b-c, 1996), and B.A. Roberts (1983, 1985) contributed to the development of the Ecoregions of Nfld. (Damman 1970, 1983), and the Ecoregions of Labrador (W.J. Meades 1989, and pages 251-321, in: S.J. Meades 1990). Two other botanists whose contributions should also be recognized are I.J. Green (1984), who worked with the Dept. of Agriculture, and Orville A. Olsen (1980), who was a biology professor at Memorial University and taught many of our Province's current botanists.

Some prominent American ecologists who conducted research on the forest and peatland communities of Labrador included F. Harper (1964), and D.R. Foster, P.H. Glaser, and G.A. King (Foster 1984, 1985; Foster & Glaser 1986; Foster & King 1984, 1986; and Glaser & Foster 1984).

Botanists from various consulting firms, such as Northland Associates, AGRA, Jacques-Whitford, and Stantec, have also played a large role in exploring regions of the Province seldom seen by most people. While their names do not appear as authors of these reports, field botanists such as Brent Keeping, Sean Bennett, Mike Crowell, Mike MacDonald, Susan Meades, Richard LaPaix, and Marion Sennen are responsible for many of the recent new species reports and range extensions in Labrador (Minaskuat Ltd. 2007, Stassinu Stantec Ltd. 2010, 2013).

Another excellent source of information of range extensions and new species are the many professional and enthusiastic local botanists who participated in field trips organized by the Newfoundland Wildflower Society (newsletter: *Sarracenia*) and the Newfoundland Natural History Society (newsletter: *The Osprey*), including long-term members Henry Mann, Todd Boland, Michael Burzynski, Ann Marceau, Howard Clase, Carmel Conway, John Maunder, Glenda Quinn, Ross Traverse, Andrus Voitk, Michael Collins, Luise Hermanutz, June Titford, and her late husband, Bill Titford. Particular thanks and gratitude should be given to Henry Mann, who has dedicated many years to documenting the flora of western Newfoundland, building the SWGC herbarium, and teaching countless budding botanists at MUN's Grenfell Campus; and to Howard Clase and John Maunder, who have documented and kept track of new reports and introductions, both ephemeral and naturalized, across the Province. Also, no discussion of the flora of Gros Morne National Park would be complete without recognizing the continuing contributions of Michael Burzynski and Anne Marceau in exploring, documenting, and

sharing/interpreting their knowledge of the GMNP Flora with fellow botanists, as well as the general public (Burzynski 1999, Burzynski, Mann, & Marceau 2016).

Locations of collections made in insular Newfoundland by many of the botanists mentioned above have been plotted on distribution maps and compiled in an atlas by Rouleau and Lamoureux (1992), while a similar atlas of Labrador plants, although based on a limited number of collections, was compiled by R. Day (1995, 1998). Also, John Maunder's *Digital Flora of Newfoundland and Labrador* (2012) should be mentioned, as it provides a wonderful reference of images and recent locations for much of our flora.

Between 1999 and 2001, many local botanists, some new to the Province at the time, and volunteers, participated in field surveys of the Newfoundland Rare Plant Project (NFRPP), including Claudia Hanel, Nathalie Djan-Chékar, René Charest, Marilyn Anions, Carson Wentzell, Beth Pollock, Laurence Lavers, and Leah Soper. Details of their discoveries and a full list of participants is provided in Djan-Chékar *et al.* (2004). Claudia Hanel, one of our 'new' and most enthusiastic field botanists, continued these explorations, resulting in many new finds, re-discoveries, and range extensions (Hanel 2004, 2005a, 2005b) on both sides of the Strait of Belle Isle. As the latest generation of Newfoundland botanists retires, local herbarium collections at Memorial University's St. John's (NFLD) and Corner Brook Campus (SWGK), as well as the Provincial Museum's 'The Rooms' (NFM), are now being actively and enthusiastically curated by Julissa Roncal (NFLD), Dmitry Sveshnikov (SWGK), and Nathalie Djan-Chékar (NFM). We look forward to more excellent work from each of these dedicated individuals in the future!

As you can see, this latest version of the *Annotated Checklist of the Vascular Plants of Newfoundland and Labrador* is not just the work of the listed authors, but a cumulative effort of every naturalist and botanist, named and unnamed, who contributed to our knowledge of the Province's flora.

History of the Checklist

Following Fernald's accounts of the flora in *Rhodora*, Dr. Ernest Rouleau published a new checklist for the Province (Rouleau 1949), which was expanded in 1956. In 1978, Oxen Pond Botanic Garden published a third update, *Rouleau's List of Newfoundland Plants*, which represented 22 years of field and herbarium study of the Newfoundland flora by Rouleau. This publication soon became an indispensable reference of all botanists and many naturalists in Newfoundland and Labrador.

Over the years, much of the nomenclature has changed and several new botanical discoveries have been made by researchers and naturalists in Newfoundland. Also, some species previously reported from the province have been shown to no longer occur in NL. These errors were based largely on misidentifications of existing herbarium material, misapplication of some names, or mistaken locations. The 2000 revision of Rouleau's checklist (Meades *et al.* 2000)

incorporated changes in the nomenclature, new reports, and appendices for species excluded from the flora.

It is the intention of the authors to provide as complete and accurate account of the vascular flora of Newfoundland and Labrador. When an herbarium record existed for a questionable report, the identity of the specimen should be checked. However, some erroneous reports originate from accounts in the early literature. When no herbarium record was reported from NL in the literature and no subsequent proof has been found of the existence of the species in question within the reported range, these accounts have been excluded from the NL flora (see further details under the heading: *Provincial Status*). While it is easy to verify the presence of a species in a given area through herbarium records, it is more difficult to rule out a verbal or photographic report. If any mistakes have been made, corrections will be gratefully accepted. In such cases, researchers are requested to provide information from the herbarium label and details of the record to the authors.

Research and compilation of the revised checklist was started in 1995 by the primary author, Susan J. Meades, with the assistance of Dr. Stuart Hay, Université de Montréal. Later, a provincial list of accepted names, compiled by Dr. Luc Brouillet, Université de Montréal, was provided for comparison. These two lists have been combined to produce the current checklist, a collaborative effort of the three authors. Additional information on Labrador distributions was obtained from a series of unpublished maps of distributions within Labrador, compiled by Ernest Rouleau and housed at the Université de Montréal. Some new reports, previously unreported, have resulted from field work conducted by the authors and their colleagues in recent years. Also, many new herbarium records and reports have been provided by Henry Mann (retired, Sir Wilfred Grenfell College, Memorial Univ. of Newfoundland), Erica Oberndorfer (Agriculture and Agri-Food Canada), Sean Blaney (ACCDC), and Mike Oldham (retired, OMNR). The accuracy of new provincial reports was checked at the Université de Montréal Herbarium by Luc Brouillet. Many verified reports also have been provided by the researchers listed in the acknowledgements. Unfortunately, funding was not available to allow most specimens in other herbaria to be checked. With Stu Hay's retirement, the 2019+ checklist and updates will be compiled by the two current authors, Susan Meades and Luc Brouillet.

For the 2000 version of the checklist, the accuracy of complex groups and verification of ranges was checked, whenever possible, with the recognized specialist in that group. But in the last 15 years, much more research is available online, facilitating the checking of names and ranges. There have also been many more changes in nomenclature and classification since 2000, particularly at the family level and above - the result of recent molecular level studies done by contemporary researchers. For Canada, the most important change in our ability to learn about nomenclatural changes and species ranges is the availability of *Canadensys*, generally known as **VASCAN**, the *Database of Vascular Plants of Canada* (Brouillet *et al.* 2010+); see: <http://data.canadensys.net/vascan/search/>. For most species listed in the current checklist, the nomenclature follows VASCAN, which presents nomenclatural changes based on the most

recent research. For a few genera, such as *Triadenum* in the Hypericaceae, I follow N.K.B. Robson's treatment in FNA, vol. 6: 102 (2015).

Elements of the Annotated Checklist

To make the revised checklist more useful, common names (in English and French), general range, and major synonyms have been included. Some entries also included notes about scarcity ranks, range extensions, nomenclatural problems, or questionable reports. Below, is a sample entry for a braya (Brassicaceae). Features of the checklist are noted by the numbers (1¹-1¹³). Brief explanations for each item are followed by more detailed explanations.

[N]¹ **Braya fernaldii**² Abbe³

En: Fernald's braya⁴, Fernald's rockcress; Fr: braya de Fernald⁵; Innu: ⁶, Inuk: ⁷.

Provincial Status: N⁸

Range: Newfoundland endemic (nwNfld.)⁹; calc.¹⁰

[=Braya americana (Hook.) Fernald *p.p.*¹¹ (type: Cape Norman, nwNfld.¹²)]

[=Braya purpurascens (R.Br.) Bunge var. fernaldii (Abbe) B.Boivin]

[The reference in Fernald (1950: 712) to another species of *Braya* from the Northern Peninsula likely refers to densely villous plants of *Braya fernaldii* that are diseased (possible viral infection). Plants of *B. fernaldii* with sterile, infected shoots and fertile, normal shoots have been found on the same plants in populations at Watt's Point (Meades 1996b). *Braya fernaldii*, classified as rare in Nfld. and 'threatened' in Canada, is found in frost-disturbed areas of limestone barrens along the coast of the Great Northern Peninsula (Bouchard *et al.*, 1991).]¹³

¹ Presence in Newfoundland [N] and/or Labrador [L].

^{2,3} Scientific name (currently accepted binomial) and authority.

^{4,5,6,7} Common names in English (En), French (Fr), Innu, and Inuktitut (Inuk).

⁸ Provincial Status: L, N, or LN (for both parts of the province).

⁹ Global range and general provincial range.

¹⁰ Specific habitat preferences, if restrictive.

¹¹ Synonymy - including basionyms whenever applicable.

¹² Type location - if the type was described from NF specimens.

¹³ Annotations: notes about known locations, questionable reports, or taxonomic problems.

Provincial Status

Presence in Labrador and insular Newfoundland is indicated by the bracketed abbreviations [L] for Labrador and [N] for the Island, placed along the left-hand margin of the checklist. When a report cannot be confirmed, a question mark '?' is placed *prior to* the appropriate region, i.e., [?LN] indicates that the species is confirmed from insular Newfoundland but not Labrador. The single letter abbreviations of 'L' and 'N' are used only to designate provincial presence in the

left margin of the checklist. To avoid confusion between reference to the *Province* of Newfoundland and Labrador, and the *Island* of Newfoundland, the standard abbreviation 'NL' is used when referring to the province as a whole, while the abbreviations 'Lab.' for Labrador and 'Nfld.' for insular Newfoundland are used throughout the checklist.

Introduced species are designated by a lower case 'i'. When the species is introduced in both parts of the province, the 'i' appears after both abbreviations [**LiNi**]; if the species is introduced in only the mainland or island portion of the province, the 'i' is placed directly after the appropriate abbreviation [**LNi**], here indicating that the species is native in Labrador, but introduced in insular Newfoundland, such as in *Arabidopsis arenicola*.

Species formerly included in the Appendix to the initial 2019 version of this checklist, have now been moved into the main checklist (and the pdf file of the appendix deleted), facilitating confirmation of the status of each species. These species fall into 3 general categories and are now indicated in the checklist by the following designations:

- 1) **Species reported erroneously from the Province.** These species are based on misidentifications, or the reports date back to old literature references that are not supported by an herbarium record and remain unvalidated. In the Provincial Status line (below the common names) in the appropriate species page, these plants are designated as [**X**] for 'excluded from NL.'
- 2) **Cultivated species.** This category includes those species (purchased or brought into NL from garden centres or nurseries) that may have persisted at former garden locations, but have not spread or naturalized in the province. These plants are also excluded from the provincial flora and designated as [**X**]. Cultivated species that have not naturalized in a given area are usually not included in local floras, however, cultivated species reported as introduced from NL in previous floras and checklists (e.g., Scoggan 1978-79, Rouleau 1978) are included in this checklist; those that have naturalized are treated as introduced species; those that have not naturalized, are now excluded from the NL flora. No attempt has been made in this checklist to document all of the cultivated species present in Newfoundland and Labrador gardens and urban street plantings.
- 3) **Ephemeral species.** This category includes unintentional introductions (brought to NL via ship ballast, bird droppings, hikers boots or clothing, or muddy vehicle tires) that could not withstand the harsh winters and freeze-thaw cycles and become permanently established in the NL flora. These species are designated as [**E**] for 'ephemeral introductions' and are not considered part of the native or naturalized flora in NL. When an introduction has been found to be short-lived (ephemeral) in one part of the province, but naturalized (persistent) in the other part, a lower case 'e' is used in place of a lower case 'i' to identify the species as ephemeral in either N or L. Some ephemerals may be repeat introductions, such as grass species that are introduced in birdseed or weed seeds introduced in annual agricultural crops. If an ephemeral

introduced species has not been reported from the province in 50 years or more, the status of that species is changed from ephemeral [E] to excluded [X].

Scientific Names and Authorities

Within the checklist, accepted scientific names appear in **bold** letters; introduced species (both established and ephemeral) are also **italicized**. The Latin binomial is followed by the scientific authority - the person who described the species. In some instances, a name or combination has been published for the same species by more than one authority at different times. For example: Hultén (1968) and Scoggan (1978) list the authorities of *Minuartia rubella* as (Wahlenb.) Graebn., while other references use (Wahlenb.) Hiern. Literature research shows that (Wahlenb.) Hiern is the correct citation, since Hiern published this combination in 1899 [*Jour. Bot. (Lond.)* 37: 320, 1899], prior to Graebner's work on *Minuartia*, which was published in 1918 [*Syn. Mitteleur. Fl.* 5(1): 727, 1918]. When two or more different authorities are seen in the literature, both names, along with publication dates, have been included in this checklist so the reader will know which authority is correct and which should be rejected. The latter name is considered to be an illegitimate later **isonym** of the earlier described name. Abbreviations for authorities follow the standards used in IPNI's, *Authors of Plant Names*. The example described above appears in synonymy, under *Sabulina rubella*, and is included in the list of synonyms as shown here:

[=**Minuartia rubella** (Wahlenb.) Hiern]

[=**Minuartia rubella** (Wahlenb.) Graebn. 1918, *nom. illeg. isonym., non* (Wahlenb.) Hiern 1899]

Occasionally, the same scientific name is published by different authors based on different type specimens (a homonym); the rule of authority still applies here, with the first published name being the legitimate name. For example, in the list of synonyms under *Viola blanda*, Leconte published the name *Viola amoena* in 1828, while T.F.Forst. published the same name in 1798. T.F. Forster's name is a synonym of the European *Viola lutea* Hudson, and since it was published prior to Leconte's species, *Viola amoena* Leconte is thus an illegitimate later **homonym** of Forster's *Viola amoena*. The entry in synonymy under *Viola blanda* is written as follows:

[=**Viola amoena** Leconte 1828 *nom. illeg. hom., non* T.F.Forst. 1798]

A full list and explanation of abbreviations used in botanical nomenclature can be found on the *International Association for Plant Taxonomy* (IAPT) website:

<https://www.iapt-taxon.org/icbn/frameset/0117SubjIndx.htm>

Common Names

The inclusion of common names was considered an important part of this checklist. While professional botanists are comfortable with scientific names, there are increasing requests from amateur naturalists, tourists, and local people to provide common names for our flora. The common names used in this checklist were obtained from many sources, the most useful of which were *Gray's Manual* (Fernald 1950) and *Newcomb's Wildflower Guide* (Newcomb 1977) for English names, and *Flore Laurentienne* (Marie-Victorin 1995) and the *Fleurbec* series for French names. Many other manuals and Internet sites were consulted to find existing names. For the most part, common names that appeared in the 2000 version of the checklist have been retained in the current checklist, except where nomenclatural changes have mandated a change or clarification in the common names.

Mr. Marc Favreau, Translator/Language Advisor with the Department of Science and Technologies, Translation Bureau, Public Works & Government Services of Canada, reviewed all the French common names for accuracy and provided necessary corrections for the 2000 checklist, and contributed many additional French common names through his work with VASCAN for the current checklist. When an appropriate common name could not be located by the authors, Mr. Favreau researched these names and also coined names for species lacking a common name. A few names, unique to the islands of St. Pierre and/or Miquelon, have also been included, thanks to Mr. Favreau. The accuracy of these names has been greatly improved by Marc's careful attention to detail and his understanding of the nuances of the French, English, and Latin languages.

Since common names are not regulated in the same manner as scientific names, there is no 'one accepted' common name that should be used over all others. Common names also vary from one province to another, based on the type of habitat in which the plant occurs. For example, the common name 'upland willow' is more appropriate for *Salix humilis* in NL than the common name 'prairie willow.' In this checklist, we provide those common names found in those botanical references most often consulted in the province, as well as local names that are unique to our province. For example, **bakeapple** is the Newfoundland name for *Rubus chamaemorus*, and **chuckleypear** is the name for any species of *Amelanchier*. In situations where the local NL name is used for a different species in other parts of Canada, the area where each name is most commonly used is given in parentheses. For example, under *Vaccinium vitis-idaea*, the following common names appear: partridgeberry (NL); mountain cranberry, foxberry (mainland Canada), lingonberry (Scandinavia); Fr: airelle rouge, berri (SPM).

Range

The general range (i.e., circumpolar, boreal, temperate) is provided for each species, followed by its range within Newfoundland and Labrador. The latter range is strictly a reflection of herbarium collections and published records. Ranges may be more extensive than indicated here, and additional accounts, accompanied by verifiable proof, are welcomed by the authors.

Using *Sabulina rubella* as an example, the range is listed as 'Arctic-alpine circumpolar; thr. Lab., S to w/n/cNfld.' So, we see that the species has a circumpolar range, which extends south throughout Labrador to western, northern, and central Newfoundland.

Range Abbreviations

Throughout the checklist, the following abbreviations are used in the general range descriptions:

NA - North America	N - North
SA - South America	S - South
CA - Central America	E - East
temp. - temperate regions	W - West
trop. - tropical regions	disj. - disjunct distribution

- and for provincial ranges:

NL - the entire Province of Newfoundland & Labrador	
Nfld. - insular Newfoundland only	Lab. - Labrador only
intr. - introduced	thr. - throughout

Abbreviations used for ranges within the province are described below, with the boundaries of each region outlined on the two corresponding maps. Geographic subdivisions of the Province used in this checklist are for convenience only; they do not correspond, except in a general sense, to ecoregions or floristic zones. For descriptions and information on the Ecoregions of insular Newfoundland, see Damman (1983); for Labrador, see W.J. Meades' Ecoregions of Labrador, in: S.J. Meades (1990). See Figures 1 and 2 for maps of the Province and the abbreviations used to denote range.

Specific Habitat Preference

Habitat preferences, if characteristic of the species, are provided after the range.

- acid.** - usually restricted to acidic substrates, such as granitic bedrock or acidic bogs.
- aq.** - restricted to fresh water aquatic habitats, such as ponds or streams.
- calc.** - usually restricted to calcareous or basic substrates, such as limestone barrens or dolomite.
- hal.** - usually restricted to coastal habitats influenced by salt water, such as salt marshes, brackish water, and sea beaches.
- nit.** - usually restricted to nitrogen rich substrates, such as bird cliffs.
- serp.** - usually restricted to ultrabasic and ultramafic substrates, such as serpentine barrens or outcrops.
- snowbeds** - usually restricted to alpine snowbeds or snowmelt areas.

Figure 1. Range abbreviations within Labrador:

- w** - western Labrador, west of and adjacent to the northern and southern Labrador regions.
- n** - northern Labrador, north of the Churchill River Basin.
- c** - central Labrador, primarily the Lake Melville/Churchill River Basin.
- s** - southern Labrador, west & south of the Churchill River Basin.
- se** - southeast Labrador, primarily the Strait of Belle Isle area.

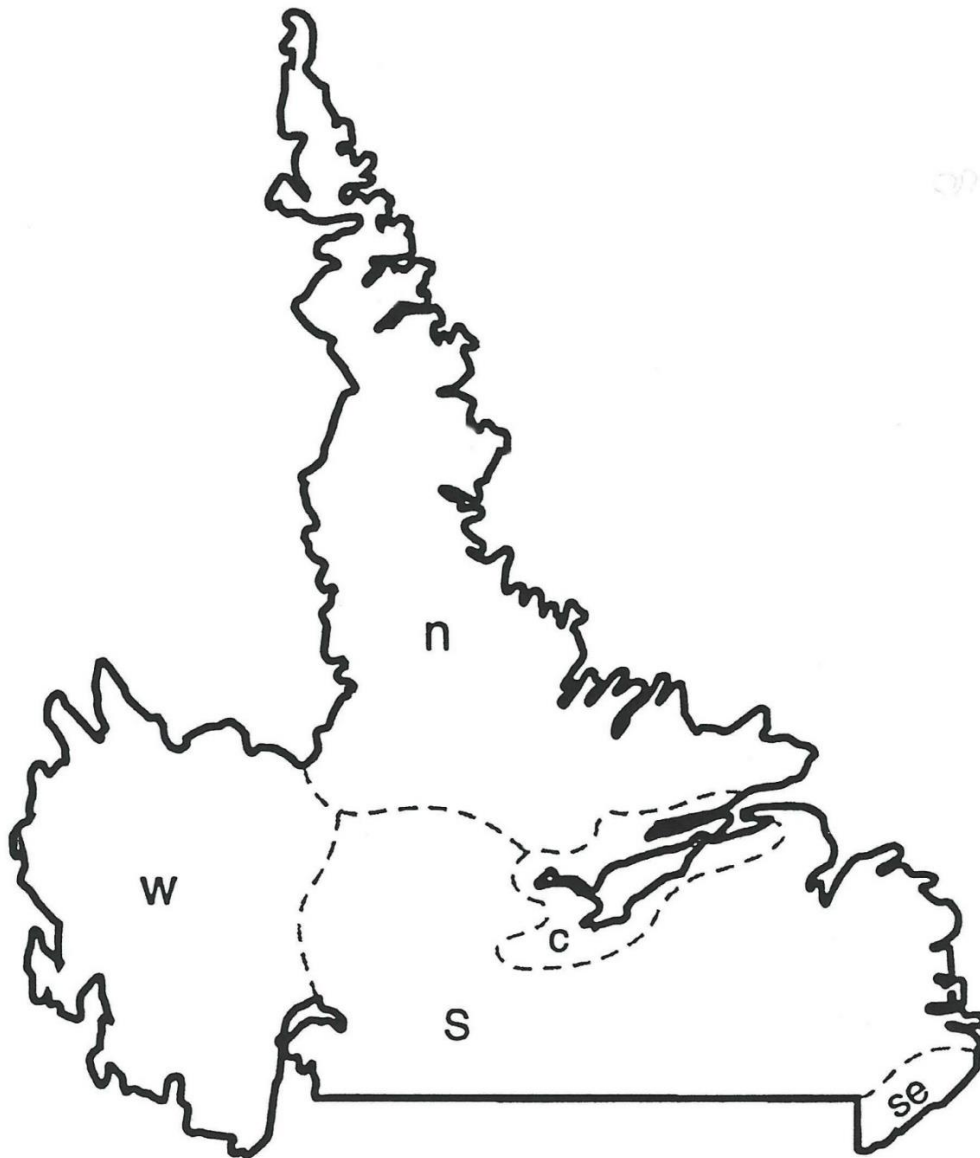
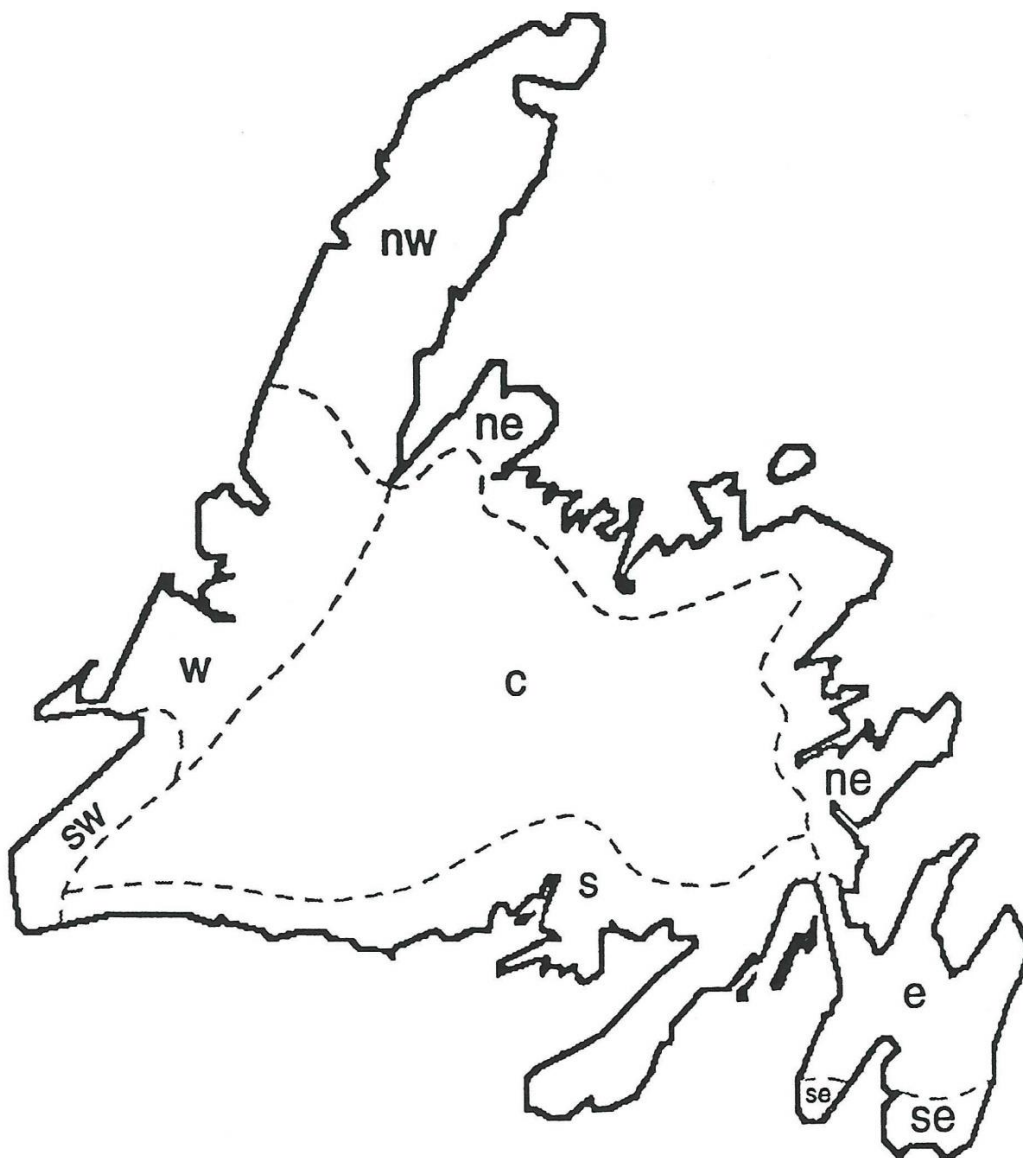


Figure 2. Range abbreviations for insular Newfoundland:

- sw** - southwest Nfld., from S of the Port au Port to Channel-Port aux Basques.
- w** - western Nfld., from the N boundary of Gros Morne National Park (GMNP), extending S to the base of the Port au Port Peninsula.
- nw** - northwest Nfld., the Great Northern Peninsula, extending N from the N end of GMNP.
- ne** - northeast Nfld., from White Bay E to the Isthmus of Avalon.
- c** - central or interior Nfld.
- s** - southern Nfld., from Channel-Port aux Basques E, through the Burin, to the Isthmus.
- e** - eastern Nfld. includes the Avalon Peninsula and the Isthmus of Avalon.
- se** - southeast Nfld. includes the southern-most portions of the Avalon Peninsula.



Synonymy & Identification Resources

The synonyms included under each species were compiled from several online sources, including the following primary references. URL's for each website are included in the bibliography.

Canadensys (VASCAN) (Brouillet *et al.* 2010+)

FNA (*Flora of North America*, 1993-2018+)

IPNI (International Plant Name Index, 2012)

Tropicos (Tropicos.org 2015)

GRIN (USDA, ARS 2009)

Index Synonymique (Kerguélen 1999)

When trying to identify plants collected in our province, a variety of texts are often used. The multi-volume reference, *Flora of North America* (FNA) has superseded Scoggan's *Flora of Canada* (1978) as the main reference with descriptions and keys for the flora of Canada. However, not all volumes of this series have been published yet. Some people prefer to use the illustrated '*Britton and Brown*' (Gleason 1952) or Gleason and Cronquist's (1963, 1991) *Manual of Vascular Plants of Northeastern U.S. and Adjacent Canada*, but these references do not cover northern species, which make up a good portion of our flora, particularly in Labrador. The most comprehensive text, *Gray's Manual of Botany* (Fernald 1950) covers most of the Newfoundland flora, including the Newfoundland endemics described by Fernald, but excludes high-arctic elements. These species can be found in either Porsild's work on the Canadian Arctic Archipelago (Porsild 1964) or Hultén's *Flora of Alaska* (Hultén 1968). Descriptions of our Cordilleran disjuncts can be found in Porsild and Cody (1980).

Because the 1952 edition of '*Britton and Brown*' dropped many northern species, the old 1913 edition, reprinted by Dover in 1970, is used by many serious naturalists visiting Newfoundland. This three-volume work is still available at Gros Morne National Park's interpretation centre book store. The nomenclature in this book is much older than that found in current Gleason publications, but in some cases, it is now more useful. For example, in the *Flora of North America*, the knotweed genus, *Polygonum*, has been divided again into *Polygonum*, *Persicaria*, and *Fallopia*; some of these currently accepted names were also used in the old 1913 edition of '*Britton and Brown*.'

Synonyms are listed after the species names and range information, beginning with the basionym of the currently accepted name. Remaining synonyms are listed in alphabetical order. Whenever possible, the basionym (original name) is provided for each binomial. This feature was included to help student botanists follow nomenclatural changes. All names used in the previous version of the *Checklist* have been cross-referenced in an Index, which has been added to the current checklist.

Differences in nomenclature make comparison between the various texts rather complicated for those who do not use these references on a regular basis. To facilitate the use of different texts, the accepted scientific names found in each of the following manuals have been included in synonymy. Not all names that appear as synonyms in each text have been included, as this would greatly increase the length of the checklist. Texts and publications that were used to obtain synonyms include:

- *The Rare Vascular Plants of the Island of Newfoundland*. (Bouchard, et al. 1991)
- *Illustrated Flora of the Northern US and Canada*. (Britton & Brown 1913 (1970 reprint).
- *Gray's Manual of Botany*, 8th edition. (Fernald 1950, reprinted 1970.)
- *Flora of North America*, Vols. 2-9, 12, 19-26. (Flora of North America Editorial Committee. 1993.)
- *The New Britton and Brown Illustrated Flora of the Northeastern United States and Adjacent Canada*, (1974 Printing), 3 Vols. (Gleason 1952).
- *Manual of Vascular Plants of Northeastern United States and Adjacent Canada*. (Gleason & Cronquist 1963, 1991).
- *Flora of Alaska and Neighboring Territories*. (Hultén 1968)
- *A Synonymized Checklist of the Vascular Flora of the United States, Canada, and Greenland*, second edition. 2 Vols. (Kartesz 1994).
- *Newcomb's Wildflower Guide* (Newcomb 1977).
- *Illustrated Flora of the Canadian Arctic Archipelago*. 2nd ed. (Porsild 1964).
- *Vascular Plants of the Continental Northwest Territories*. (Porsild & Cody 1980).
- *Rouleau's List of Newfoundland Plants*. (Rouleau 1978).
- *Atlas of the Vascular Plants of the Island of Newfoundland and of the Islands of Saint-Pierre-et-Miquelon* (Rouleau and Lamoureux 1992).
- *The Flora of Canada*. 4 Vols. (Scoggan 1978-1979).

In addition, names from Fernald's major publications on his Newfoundland travels, published in *Rhodora* (Fernald 1911, 1926, and 1933), are also included in the synonymy. These references still provide excellent information about the location of endemic and rare species in Newfoundland, but the nomenclature is, as expected, out of date in many cases.

Type Locations

If known, type locations are noted when the type specimen originated from a location within Newfoundland or Labrador. In many cases, the provided location is very general (i.e., Newfoundland); as more type locations are found, this information will be updated.

Annotations

Following the synonymy are notes about a species scarcity, notable range extensions, questionable reports, or taxonomic problems. Since scarcity ranks change regularly according to new information, S-ranks will not be provided in the online version of this checklist. For

the 2000 checklist, the main reference consulted for scarcity ranks was *The Rare Vascular Plants of the Island of Newfoundland* (Bouchard *et al.* 1991), which described those species in the Island's flora that are rare (S1, S2, S3) or historically present (SH). While habitat information about insular Newfoundland plants has been retained in the annotations, information on the status (S-rank) of rare species in the Province is not included in the checklist, but can be obtained from the Atlantic Canada Conservation Data Centre (ACCDC) (URL: <https://www.flr.gov.nl.ca/wildlife/endangeredspecies/plants.html>).

Occasionally, information about the location of an herbarium specimens is provided in the notes. The standard herbarium abbreviations apply, with the exception of two Newfoundland institutions that do not have official acronyms. In this checklist, we use **NFM** to refer to the Newfoundland Museum Herbarium, St. John's Newfoundland, and **SWG** to refer to Sir Wilfred Grenfell College Herbarium, MUN, Corner Brook, which also houses the I.J. Green agricultural collection. Other commonly used herbarium abbreviations in this checklist include **ACCDC** (Atlantic Canada Conservation Data Centre), **CAN** (Canadian Museum of Nature), **CONN** (Univ. of Connecticut), **DAO** (Dept. of Agriculture, Ottawa), **GMNP** (Gros Morne National Park Herbarium), **H** (Harvard Univ.), **MT** (Montreal Univ.), **NF-CDC** (Newfoundland and Labrador-Conservation Data Centre), **TNNP** (Terra Nova National Park herbarium), and **TRTE** (University of Toronto-Mississauga, formerly Erindale).

Corrections

Comments and/or corrections to this checklist are welcome. Researchers are requested to please include label information from verified herbarium material. New reports or corrections may be sent to **Susan Meades** (sjmeades@sympatico.ca), while herbarium specimens may be sent on loan for verification to **Dr. Luc Brouillet** (Herbier Marie-Victorin, I.R.B.V., Université de Montréal, 4101 est, rue Sherbrooke, Montréal, Québec, H1X 2B2).

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In 2018, development of a new website for the *Flora of Newfoundland and Labrador* and the *Checklist* was moved from the CFS in Corner Brook, NL, to Miramar Design Studio, Sault Ste. Marie, ON, under the direction of Steve Morassut, and web developers Richard Laliberte and Dave Hunter. Updates of nomenclatural information and addition of new keys and photo-gallery files were added on a continuing basis by Susan Meades.