



5-19-1949

## A Study of the Flora Found in the Area of North Bay, Ontario, Canada

Dorothy H. Post

Follow this and additional works at: [https://digitalcommons.ursinus.edu/biology\\_hon](https://digitalcommons.ursinus.edu/biology_hon)



Part of the [Biology Commons](#)

[Click here to let us know how access to this document benefits you.](#)

---

A STUDY OF THE FLORA FOUND IN THE  
AREA OF NORTH BAY, ONTARIO, CANADA

This paper is submitted to the faculty of Ursinus College  
in partial fulfillment of requirements for departmental  
honors in Biology.

Approved by:

*John Paul*

Submitted by:

*Dorothy H. Post*

May 19, 1949

I dedicate this paper to my mother  
for her kind assistance in collecting these plants.

TABLE OF CONTENTS

A Discussion of the Flora in the  
North Bay, Ontario, Area -----4

Technical Procedures -----8

Floral Statistics -----11

A Check List of Species -----13

References -----20

A DISCUSSION OF THE FLORA FOUND IN THE  
NORTH BAY, ONTARIO, AREA

Rocks, evergreens, and water best describe the area from which these plants were collected. The chief means of transportation is by boat, and as you approach the French River across Lake Nipissing from North Bay, Ontario, groups of islands first break the monotony of the lake water. The islands look like rounded lobes separating the sky and water; one is so rounded as to be called Iron Island. After passing into the lea of many islands, with the mainland running along the left side of the River, we come to our island - Island 168. Most of these plants were collected on this particular island, of about fourteen acres, although approximately one-fourth were found on the mainland or other islands.

Island 168 has at its one end a cottage belonging to Rev. Harold F. Post, a minister from Greensburg, Pa. The cottage nestles beneath a stand of tall red pines, and is built entirely on one huge rock, only one of many. This particular end of the island is thickly wooded with small trees and bushes, mostly evergreens and members of the Willow and Birch families, and the ground is covered with representative Heath and Fern species.

A large part of the island behind this wooded portion is made up of flat rocks, surrounded in the crevices between the rocks by blueberries. In among the woods

and rocks are found little swampy places full of grasses and sedges, and abounding with birdlife of all types. The far end of the island has been named "Gibraltar" because of its resemblance to the rock famous for that name. Tiny evergreens and ferns cling to the sides of the upright rock, pulling nourishment it almost seems from the rock itself. Up on top of Gibraltar blueberries again grow in abundance until the wooded area of that end once more takes over.

The shoreline of the whole island varies from flat rocks slopping into the water and broken rocks lining the wooded shore, to quiet inlets with sandy bottoms where the bulrushes grow and water lilies cover the surface, their yellow and white heads rising above the floating green leaves.

The whole island, beautifully covered as it is by the bare rocks and in between wooded areas, is a haven for much wildlife. Red squirrels scold down at you from the tops of tall pine trees, and occasionally drop pine cones to the ground, chipmunks become so tame as to crawl up on your lap and eat peanuts from your hand, and porcupines just sit and refuse to move when you approach unless you have a broom to push the destructive animal on his way. Quiet and shy deer abound on the larger islands, but once we came face to face with one on our own island. Birds of many types are found including

flickers, ducks, gulls, tiny songbirds, and even the crazy old loons whose calls at night send chills up your spine. Occasionally bears are found, but these usually keep to the larger areas of land where the abundance of blueberries and huckleberries is even greater than on the islands.

Most of the plants collected belonged to that particular area characterized by the heaths, pines and ferns. Only a few exceptions were found; one of these was the wild columbine, *Aquilegia canadensis*, which naturally belongs to the South and the West. One unusual bit of nomenclature is this: the species name of "virginianum" (or variations) occurs six times and apparently is a carry over from the the day of Linnaeus, who didn't know how far north Virginia extended! "Canadensis" is another species name to be used six times, also unusual considering that the French River is definitely in the Canadian zone.

Only a few of the plants collected were not natural species, and these known as weeds, have been introduced by man. A few of these are the northern Evening Primrose, which grows directly from sand, and two Polygonums: the Lady's Thumb and Field Sorrel or Sourgrass. This might be explained by the fact that only recently has man entered this area in order to bring in these weeds, and then for only a short period of each year.

Color is predominantly green with the Composites adding the most bright color and the mints and water plants with their purple flowers a close second. Small white or pink flowers characterize the Heaths, while purple tops a lot of the grasses, partly due to the northern area in which they are growing. Yellow is the color yielded by the goldenrods, while a brilliant touch of color is added by the scarlet Cardinal Flower. All these colors add greatly to the beauty of the French River.



## TECHNICAL PROCEDURES

Collecting in a terrain as has been described presents a different problem than collecting in an area such as Collegeville. There are no conveniences such as electricity for drying purposes, so that the sun or fire heat must be used.

A field press is used for primary collecting and holds about twenty-five specimens each of which is numbered and placed in a fold of newspaper. Immediately upon returning from a field trip the specimens must be transferred from the field press to a regular heavy press. I had two presses with me, and tried to keep both filled at all times, in order to have a maximum collection. The presses were set in the sun with the ventilating side uppermost toward the sun and the opposite side on a warm rock. Of course when the sun set or on a rainy day, the presses had to be kept inside in front of the fire (thank goodness for our fireplace!) Every day or every few days the blotters in the presses had to be changed, since the plants were often quite wet, and although the sun would dry the plants it would not heat the blotters sufficiently. New blotters were laid in the sun to dry and then exchanged with the damp one already in the presses.

When the plants were dried the newspaper folders con-

taining the specimens were placed in a dry box with a weight on the top to insure correct pressing. The number of the specimen was recorded in a notebook, as well as the habitat in which the plant was found.

Two types of field trips could be taken: by land and by water. The land trip merely consisted of a walk back the island looking for new species or checking on some older ones. For the water trip I paddled around the whole island staying close to the shore and collecting from the water or the edge, occasionally hopping up on shore for choice finds. I discovered that more variety in plants were collected on each of the boat trips than on the separate walks back the island. My mother who acted as my chief assistant went along on the water trips and proved to be quite able in spotting new plants from the boat.

Beyond the jobs of collecting and drying the specimens done this past summer during the full months of July and August, the task of identifying began in September. All those books listed under References were used toward that end. Some plants were quite easy to identify and others took entire afternoons. Every Friday afternoon this year has been spent on the identification of this collection. When these plants have been mounted and labeled, they shall be placed in the Herbarium of Ursinus

College, some of them duplicating those already present and some entirely new.

The method for determining the exact genus and species of a particular specimen varies with the plants, but the general procedure would be as follows: The plant must first be put in the proper family group. (There are one hundred and fifty-seven family groups included in the phyla Pteridophyta and Spermatophyta.) Dr. Wagner helped me in placing those plants which I didn't already know. Each individual plant must be traced in the keys in the various books until first the genus is found, and then by such distinguishing features as pubescence, size of certain portions, and shape of the same, the end point or the species determination is reached. This is then recorded along with the authorities for that name on an index card and placed in the newspaper folder. When all the species were identified they were placed in the same order as in the Herbarium and were ready to be mounted.

## FLORAL STATISTICS

### Classification.

#### Species:

Pteridophyta	-	14
Gymnospermae	-	8
Angiospermae		
Monocotyledons	-	30
Dicotyledons	-	115

<b>Total</b>		167
--------------	--	-----

#### Represented families:

Pteridophyta	-	4
Gymnospermae	-	1
Angiospermae		
Monocotyledons	-	10
Dicotyledons	-	36

<b>Total</b>		51
--------------	--	----

#### Represented genera:

Pteridophyta	-	12
Gymnospermae	-	5
Angiospermae		
Monocotyledons	-	21
Dicotyledons	-	75

<b>Total</b>		113
--------------	--	-----

### Habitat.

Growing in the water	-----	about 25%
Growing at or near the water	-----	about 25%
Growing in damp and protected woods	-----	about 25%
Growing out in the open sun	-----	about 25%

Plant type.

Trees ----- about 26

Bushes ----- about 18

Smaller flowering plants --- the remaining plants

Miscellaneous.

Weed species -----about 2%

Species out of the area --- about 1%

A CHECK LIST OF SPECIES

Polypodiaceae

<i>Athyrium angustum</i> (Willd) Preal var. <i>rubellum</i> (Gilbert) Butters.	
<i>Dryopteris intermedia</i> (Muhl) Gray	Evergreen woodfern
<i>Onoclea sensibilis</i> L.	Sensitive fern
<i>Osmunda regalis</i> L. var. <i>spectabilis</i> (Willd) Gray	Royal fern
<i>Polypodium virginianum</i> L.	Rockcap fern
<i>Pteridium latiusculum</i> (Desv) Hieron	Bracken
<i>Thelypteris marginalis</i> (L) Sw.	Shield fern
<i>Woodsia ilvensis</i> (L) R.Br.	Rusty cliff fern
<i>Woodwardia virginica</i> Smith	Virginia chain fern

Equisetaceae

<i>Equisetum fluviatile</i> L.	Water horsetail
--------------------------------	-----------------

Lycopodiaceae

<i>Lycopodium obscurum</i> L. var. <i>dendroideum</i> (Mx) D.C.Eaton	
<i>Lycopodium obscurum</i> L. var. <i>genuinum</i> Wherry	
<i>Lycopodium tristachyum</i> Pursh.	Ground pine

Selaginellaceae

<i>Selaginella rupestris</i> (L) Spring	Rock spikemoss
---	----------------

Pinaceae

<i>Abies balsamea</i> (L) Mill.	Balsam fir
<i>Juniperus communis</i> L. var. <i>depressa</i> Pursh.	Prostrate juniper
<i>Picea glauca</i> (Moench) Voss.	White spruce
<i>Picea mariana</i> (Mill) BSP	Black spruce
<i>Pinus Banksiana</i> Lamb.	Jack pine
<i>Pinus resinosa</i> Ait	Red pine
<i>Pinus strobus</i> L.	White pine
<i>Thuja occidentalis</i> L.	White cedar

Najadaceae

<i>Potamogeton epihydrus</i> Raf.	Pondweed
-----------------------------------	----------

Alismaceae

<i>Sagittaria arifolia</i> Nutt.	Arrowhead
<i>Sagittaria heterophylla</i> Pursh.	Arrowhead
<i>Sagittaria latifolia</i> Willd (?)	Arrowhead
<i>Sagittaria latifolia</i> Willd forma <i>Bastata</i> (Pursh) Robinson (?)	Arrowhead

Hydrocharitaceae

*Vallisneria americana* Michx. Eel grass

Graminae

*Agrostis*

*Calamagrostis canadensis* (Michx) Beauv. Bluejoint

*Deschampsia flexuosa* (L) Trin. Crinkled hairgrass

*Panicum Lindheimeri* Nash.

*Panicum*

*Phleum pratense* L. Wild timothy

*Phragmites maximus* (Forsh) Chiov.

var, *Berlandieri* (Fourn) Moldenke. Reed grass

Cyperaceae

*Carex aquatilis* Wahl. var. *substricta*  
Kuhenth

*Carex straminea* Willd.

*Carex trisperma* Dewey

*Carex Tuckermani* Boott.

*Carex*

*Dulichium arundinacea* (L) Britt

*Eleocharis obtusa* (Willd) Schultes (young ?)

*Scirpus cyperinus* (L) Kunth var, *pelius* Fernald Bulrush

*Scirpus validus* Vahl. Softstem bulrush

Pontederiaceae

*Pontederia cordata* L. Pickerelweed

Juncaceae

*Juncus Dudleyo* Wiegand Bog rush

Liliaceae

*Clintonia borealis* (Ait) Raf.

*Maianthemum canadense* Desf.

*Polygonatum pubescens* (Willd) Pursh. Small Solomon's

seal

*Smilacina stellata* (L) Desf.

Iridaceae

*Iris virginica* L. var. *Shrevei* (Small)  
Anderson

Orchidaceae

*Cyperipedium acaule* Ait. Stemless lady's

slipper

Salicaceae

Populus grandidentata Michx.	Bigtooth aspen
Populus tremuloides Michx.	Quaking aspen
Salix balsamifera Barratt.	
Salix humilis Marsh.	Prairie willow
Salix lucida Muhl.	Shining willow

Myricaceae

Myrica asplenifolia L.	Sweet fern
Myrica Gale L.	Sweet gale

Betulaceae

Alnus incana (L) Moench	Speckled alder
Betula papyrifera Marsh.	White Birch
Corylus americana Walt.	American hazelnut

Fagaceae

Quercus borealis Michx.	Northern red oak
Quercus macrocarpa Michx.	Burr oak

Santalaceae

Comandra Richardsiana Fernald	Bastard toad-flax
-------------------------------	-------------------

Polygonaceae

Polygonum Douglasii Greene	Knotweed
Polygonum natans Eaton forma genuinum Stanford	Smartweed
Polygonum Persicaria L.	Lady's thumb
Polygonum Acetosella L.	Field sorrel

Nymphaeaceae

Nuphar variegatum Engelm.	Spatterdock
Nymphaea odorata Sit.	Sweet scented water lily

Ranunculaceae

Aquilegia canadensis L.	Wild columbine
-------------------------	----------------

Fumariaceae

Corydalis sempervirens (L) Pers.	Pink corydalis
----------------------------------	----------------



Cruciferae

<i>Arabis hirsuta</i> (L) Scop.	Hairy rockcress
<i>Rorippa palustris</i> (L) Bess. var. <i>glabrata</i> (Lunell) Vict.	Marsh cress
<i>Rorippa palustris</i> (L) Bess. var. <i>hispida</i> (Desv) Rydb.	Marsh cress

Crassulaceae

<i>Sedum triphyllum</i> (Haw) S.F.Gray	Orpine
--	--------

Saxifragaceae

<i>Ribes oxycanthoides</i> L.	Smooth gooseberry
<i>Ribes prostratum</i> L'Her.	Fetid Currant

Rosaceae

<i>Crataegus</i>	Hawthorn
<i>Fragaria vesca</i> L. var. <i>americana</i> Porter (?)	Strawberry
<i>Potentilla norvegica</i> L. var. <i>hirsuta</i> (Michx) Lehm.	Cinquefoil
<i>Potentilla palustris</i> (L) Scop.	Marsh Five finger
<i>Potentilla Robbinsiana</i> Oakes (?)	
<i>Prunus susquehanae</i> Willd.	Dwarf cherry
<i>Prunus susquehanae</i> Willd. (young)	
<i>Prunus pennsylvanica</i> L.f.	Fire cherry
<i>Rosa acicularis</i> Lindl.	Wild rose
<i>Rosa virginiana</i> Mill.	Pasture rose
<i>Rubus flagellaris</i> Willd.	Dewberry
<i>Sorbus Americana</i> Marsh.	Mountain ash
<i>Spiraea alba</i> DuRoi.	Meadow sweet
<i>Spiraea latifolia</i> Borkh.	Meadow sweet
<i>Spiraea tomentosa</i> L.	Hardhack

Leguminosae

<i>Lathyrus palustris</i> L.	Wild Pea
<i>Trifolium pratense</i> L.	Purple meadow clover
<i>Trifolium repens</i> L.	White clover

Geraniaceae

<i>Geranium carolinianum</i> L. (young ?)	
---	--

Anacardiaceae

<i>Rhus Toxicodendron</i> L.	Poison ivy
<i>Rhus typhina</i> L.	Staghorn sumac

Aquifoliaceae

*Ilex verticillata* (L) Gray var. *cyclophylla*  
Robinson  
*Nemopanthus mucronata* (L) Trelis.

Black Alder  
Mountain Holly

Aceraceae

*Acer pennsylvanicum* L.  
*Acer rubrum* L.

Moosewood  
Swamp Maple

Hypericaceae

*Hypericum canadense* L.  
*Hypericum virginicum* L.

Canadian St. John's  
Wort  
St. John's Wort

Onagraceae

*Epilobium angustifolium* L.  
*Oenothera muricata* L.  
*Oenothera pumila* L.

Fireweed  
Northern Evening  
Primrose

Araliaceae

*Aralia hispida* Vent.  
*Aralia nudicaulis* L.

Bristly Sarsaparilla  
Wild Elder

Umbelliferae

*Sium suave*.Walt.

Water parsnip

Cornaceae

*Cornus canadensis* L.  
*Cornus rugosa* Lamb.  
*Cornus stolonifera* Michx.  
*Cornus stolonifera* Michx. var. *Baileyi*  
(Coults. & Evans) Drescher

Bunchberry  
Roundleaved dogwood

Red-Osier dogwood

Ericaceae

*Arcostaphylos Uva-ursi* (L) Spreng.  
*Chamydaphne calyculata* (L) Moench.  
*Chimaphila umbellata* (L) Nutt. var.  
*cistlantica* Blake  
*Epigaea repens* L.  
*Gaultheria procumbens* L.  
*Gaylussacia baccata* (Wang) Koch  
*Monotropa Hypopitys* L.  
*Pyrola rotundifolia* L. var. *americana*  
(Sweet) Fern.  
*Vaccinium macrocarpon* Ait.

Bearberry  
Leatherleaf

Pipsissewa  
Trailing arbutus  
Teaberry

Pinesap

Shinleaf  
American cranberry

Vaccinium angustifolium Ait.	Low sweet blueberry
Vaccinium angustifolium Ait. var. nigrum	Low black
Wood	blueberry
Vaccinium vacillans Kalm.	Late low blueberry

Primulaceae

Lysimachia terrestris (L) BSP	Loosestrife
Trientalis americana (Pers) Pursh.	Starflower

Oleaceae

Fraxinus pennsylvanica Marsh.	Red ash
Fraxinus pennsylvanica Marsh. var. lanceolata (Borkh) Sarg.	Green ash

Apocynaceae

Apocynum androsaemifolium L.	Spreading dogbane
Apocynum cannabinum L.	Indian hemp

Asclepiadaceae

Asclepias incarnata L.	Swamp milkweed
------------------------	----------------

Convolvulaceae

Cuscuta compacta Juss.	Dodder
------------------------	--------

Labiatae

Lycopus americanus Muhl.	Water horehound
Lycopus virginicus L.	Water horehound
Mentha arvensis L. var. canadensis (L) Briquet.	Mint
Mentha arvensis L. var. glabrata (Benth) Fernald.	Mint
Prunella vulgaris L.	Heal-all
Scutellaria epilobiifolia Ham.	Skullcap
Scutellaria laterifolia L.	Mad-dog skullcap

Scrophulariaceae

Agalinis paupercula Brit.	Gerardia
Melampyrum lineare Lam.	Cow-wheat

Rubiaceae

Galium Claytoni Michx.	Clayton's bedstraw
------------------------	--------------------

Caprifoliaceae

*Diervilla lonicera* Mill.  
*Viburnum cassanoides* L.

Bush honeysuckle  
Withe-rod

Campanulaceae

*Campanula uliginosa* Rydb.

Marsh bellflower

Lobeliaceae

*Lobelia cardinalis* L.

Cardinal flower

Compositae

*Achillea lanulosa* Nutt.  
*Anaphalis margaritacea* (L) B & H  
*Antennaria neodioica* Greene  
*Aster paniculatus* Lam.  
*Aster umbellatus* Mill.  
*Aster undulatus* L.  
*Bidens frondosa* L. var. *anomala* Porter  
*Chrysanthemum leucanthemum* L.  
*Eupatorium maculatum* L.  
*Eupatorium perfoliatum* L.  
*Hieracium canadensis* Michx.  
*Lactuca canadensis* L.  
*Solidago graminifolia* (L) Salisb. var.  
                  *Nuttallii* (Greene) Fernold  
*Solidago hispida* Muhl.  
*Solidago juncea* Ait.  
*Solidago randii* (Porter) Britton

Woolly yarrow  
Pearly Everlasting  
Pussytoes

Spanish needle  
Ox-eye daisy  
Joe-pye weed  
Boneset  
Canadian hawkweed  
Wild lettuce

Goldenrod  
Hairy goldenrod  
Goldenrod  
Rand's goldenrod

## REFERENCES

The Herbarium of Ursinus College

### Books:

- Britton, N.L. and Brown, Addison - An Illustrated Flora of the Northern United States, Canada and British Possessions - Second Edition - Three Volumes - 1923
- Fassett, Norman C. - A Manual of Aquatic Plants - 1940
- Hitchcock, A.S. - Manual of the Grasses of the United States - 1935
- House, Homer D. - Wild Flowers - 1935
- Illeck, Joseph S. - Pennsylvania Trees - 1928
- Keeler, Harriet L. - Our Northern Shrubs -
- Mathews, F. Schuyler - Field Book of American Wild Flowers - 1927
- Muenschler, W.C. - Aquatic Plants of the United States - 1944
- Muenschler, W.C. - Keys to Woody Plants - 1946
- Parsons, Frances L. - How to Know the Ferns - 1909
- Robinson, B.L. and Fernald, M.L. (revised by) - Gray's New Manual of Botany - 1908
- Small, John K. - Ferns of the Vicinity of New York - 1935
- Taylor, Norman - A Guide to the Wild Flowers - 1928
- Wherry, Edgar T. - Guide to Eastern Ferns - 1937
- Wiegand, K.M. and Eames, A.J. - The Flora of the Cayuga Lake Basin, New York - 1926