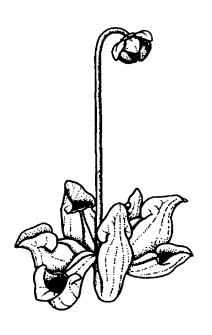
Sarracenia

Volume 8, Number 1

Spring 1998

Newsletter of the Canadian Wildflower Society - Newfoundland Chapter

We need you to help with a new programme being introduced...



PlantWatch Begins in Our Province

he Memorial University of Newfoundland Botanical Garden and the Canadian Wildflower Society-Newfoundland Chapter are sponsoring a new programme called "PlantWatch" in our province. What is PlantWatch? PlantWatch is a global phenology survey, and we are adding our province to the network. Phenology is the study of timing of important events in the lives of plants and animals, for example when plants flower as the weather warms in spring. With the information collected from plant monitoring, we can understand how the climate is changing in Newfoundland and Labrador, and compare it to other locations in Canada and the world. Our ultimate goal is to involve interested individuals and school children throughout the province. On pages 7 - 12 you will find an outline of the project and a list of the wildflowers we will be following.

To introduce everyone to the workings of PlantWatch, Dr. Luise Hermanutz, ecologist at MUN, and Madonna Bishop, research liaison at MUN Botancial Garden are inviting all interested people to the MUN Botanical Garden for a free orientation session. The Garden is located on Mount Scio Road and the session is from 10 a.m. - 12 p.m. on Saturday, June 6, 1998. They suggest you dress for outdoors. At the orientation session Luise and Madonna will outline the goals of PlantWatch, and show some of the data various sites have collected and its importance understanding climate change. They will then work through the forms using plots they have established on Botanical Garden property. Please consider joining PlantWatch! The entire province will benefit from your involvement. Luise and Madonna are looking forward to meeting you. Any questions, please phone or e-mail:

Madonna Bishop: 737-3328 mbishop@morgan.ucs.mun.ca Luise Hermanutz: 737-7919 lhermanu@morgan.ucs.mun.ca

Notes from the Presidents

his will be my last "note", as our new President Howard Clase takes over. I am stepping down early due to other time commitments. We also have a new treasurer, Carmel Conway. She takes over from Alice Close who has been taking care of the financial end of things for years! Thank you Alice for all your dedication, and welcome to Carmel. Glenda Quinn has officially taken over the reigns as the Editor of the Sarracenia. Please send all your contributions to the newsletter to Glenda.

I would like to thank everyone in the Society for making my term very enriching and enjoyable. I would like to thank Tom Smith, Glenda Quinn, and John Maunder who took the time to lead our summer field trips. This year we have some wonderful trips planned and I hope you will join us. We always seem to find something new and exciting! Also I would like to thank all our fall/winter speakers. We had a very wide range of topics from Gerry Yetman's presentation on wetland conservation to Gred Stroud's talk on lichens. In December Ken Knowles brought back wonderful memories of our 1997 Annual Field Trip to the SW coast and we went exploring from Arizona with Todd Boland to Northern British Columbia with Wilf Nicholls. Special thanks to Tom Smith and Lydia Snellen for giving us a taste of the Caribbean flora on short notice when we had to cancel our workshop on "Updating the distributions of NF plants". Look for this workshop in the fall. Bodil Larsen gave the Society an absolutely spectacular slide show on the wildflowers of the Andes. Her knowledge of the alpine flora of the world is impressive. She tells me she's off to China this year, so perhaps we could twist her arm.....

I would like to invite all of our members (and anyone else you think might be interested), to the workshop on "Introducing the NF &LAB PlantWatch", to be held Saturday June 6, from 10 a.m. to 12 p.m. at the MUN Botanical Gardens.

(see first page) This is a joint project of the CWS-NF Chapter and the MUN Botanical Garden. This is a chance to get involved in a new project which uses plant flowering times to track changes in global weather patterns.

Another interesting plant development is the designation by COSEWIC of Long's Braya Braya longii as an endangered species and Fernald's Braya B. fernaldii as threatened. Henry Mann and myself are co-chairs of the Braya Recovery Team, and will keep the Society updated on their status.

I also look forward to our 1998 Annual Field Trip to St. Pierre-Miquelon. The Society is very happy to have Roger Etcheberry leading the trip. See you there, and if you can't come along, I'm sure the slide show will be inspiring.

The last bit of business is to inform the Society that we have no volunteer for the post of Vice-President. Please consider becoming involved in our Society.

-Luise Hermanutz

few days ago everyone was talking about the early spring and sure enough there were wild- flowers open, if my garden weeds can be so promoted. The Hairy Bittercress Cardamine hirsuta has been open in sheltered spots since mid-March and more recently has been joined by Dandelion Taraxacum officinalis, and Thyme-leaved Speedwell Veronica serpyllifolia and I noticed flowerheads of Timothy Grass Phleum pratense amongst the unmown blades in my lawn. All these are, of course, introduced plants still innocent of the New-foundland climate, brought in on the muddy boots of our ancestors; native plants are more canny, quite prepared for the snowflakes that have been falling amongst the cold rain of the last couple of days. I did notice

the tiny flowers of Black Crowberry Empetrum nigrum in the MUN Botanic Garden on May 3rd; this is one of the earliest natives to bloom, but its flowers are so inconspicuous that I wouldn't have noticed them if I hadn't been looking for them. There are buds on the Corn-lilies Clintonia borealis and Starflowers Trientalis borealis, but we shouldn't expect to see many natives in flower before early June - just in time for the PlantWatch workshop at the Botanic Garden on June 6 and our first visit to Mundy Pond the next day. It would be normal for me to thank the retiring executive for their efforts etc. but since the new executive is largely the same names with a slight rearrangement of responsibilities this would amount to nothing more than reflexive back-patting so I will refrain from any such generalities. But it is in order to thank Alice Close for her long stint at the treasury and to welcome Carmel Conway as our new Chancellor of the Exchequer. Luise has also put in a lot of hours as President and I will do my best to follow suit, but I am relieved to know that she is still on the executive and will continue to look after some of the projects she has started - like PlantWatch.

This is the first issue of Sarracenia produced entirely by our new editor and I hope that members will continue to support Glenda with a good supply of interesting and informative articles. Remember it's a newsletter not a learned journal, you don't have to have a Ph.D. in botany to contribute (very few of our regular contributors do!) Our immediate past-president, Luise Hermanutz, and Madonna Bishop of the MUN Botanic Garden have put a lot of effort into getting PlantWatch off the ground in this province, and I am sure that it will be a success. I hope there will be a good turn out to the workshop on June 6. As usual we have a good program of field trips planned for the summer including the annual highlight, our traditional week long field trip; this year, for the first time, it will be partly on foreign soil. Details of these will be found elsewhere in the newletter. Our fall program of indoor meetings is still in preparation; I'd be pleased to hear from anyone who has suggestions for speakers and even happier to hear from volunteers.

In any society like ours there are passive members who like to be shown things, and more active ones who like to seek out things for themselves. I hope that during the next couple of years we shall be able to convert some of the first into the second: Newfoundland needs more active botanists. We ought to be able to make a positive contribution to the knowledge of the Botany of our province. I have enjoyed all of the field trips I have been on very much, but I always been left with the feeling that we have been missing the opportunity to record as much as we can in a systematic manner. If one looks at Rouleaux's atlas it is clear that the province is under botanised, with lots of exploration left to do, and our society contains a fair proportion of the province's botanists at all levels of expertise. You don't have to go to the Northern Peninsula or even on an organised field trip to make interesting discoveries, you can start in your own backyard - can you identify all the weeds out there? If not then use them for identification practise. If we see anything in our garden that we do not recognise we let it grow on until we can identify it and it's surprising how many unusual plants we have come across this way, at least one first record for the province Broad-Leaved Helleborine Epipactis helleborine and several other uncommon plants such as Sun Spurge Euphorbia helioscopia, Purslane Portulaca oleracea and even the dreaded Ragweed Ambrosia artemisiifolia which I saw in two or three other places around the city last summer. I have been wondering why all these unusual, introduced plants have been popping up in our garden and have come to the conclusion that the seeds are probably coming in with the bags of mainland "composted manure" that everyone is spreading onto their gardens these days. Bird seed and the soil that comes with with potted imported garden plants are other possible sources. Our society should be keeping an eye on this invasion of aliens, so before you pull up that unusual weed make sure it is identified and recorded. John Maunder might even like it for his herbarium. I seem to have come full circle, I'm writing about alien weeds again - but in some ways, welcome or not, they are some of the most interesting plants around St John's.

-Howard Clase

1998 Summer Schedule of Field Trips

June 6	PlantWatch	Madonna Bishop & Luise Hermanutz will introduce this newly initiated flowering date survey. Begins at 10 a.m., MUN Botanical Garden (see pg.1).
June 7 July 4 August 2 October 4	Mundy Pond Walks*	Meet at the parking lot by the pond opposite Mews Centre at 2 p.m. In the event of rain we'll try again at 7:00 p.m. the next fine evening. Call Howard at 753-6415 for confirmation.
July 12	Bog Orchid Walk	Cynthia Brown will show us the Orchid Bog off the TCH near Foxtrap Access Road. Meet at the Arts and Culture Centre parking lot at 1:00 p.m.
July 12	Organizational meeting for the St. Pierre-Miquelon trip	Meet at 5 p.m. at MUN Botanical Garden
July 17- July 25	Annual Field Trip	See itinerary on page 5
August 23	Trepassey & Cape Race	Meet at 11:00 a.m. near the Biscay Bay Barachois Bridge at the east end of the barachois before you get to the community of Trepassey. Leaders, Howard & Leila Chase, are going the previous day, so if you are interested in an overnight stay call 753-6415.
September 6	Mundy Pond Walk and Annual Pot Luck	After our walk we will have our traditional pot luck supper at the president's house. Grey house on the left behind Holland Nurseries off Torbay Road. Drive into the nursery and up the lane past the "No Vehicles Past this Point" sign - or leave your car in HN parking lot and walk up. If possible get in touch Howard or Leila by Sept. 2 to discuss food. (753-6415)

^{*}A note from Howard—Mundy Pond is probably the only area within the civ with significant numbers of native plants; most city weeds are aliens brought here by us and our ancestors. The purposes of these walks are to make an inventory of the plants at Mundy Pond in the hope that the "powers that be" can be persuaded to preserve and maybe ameliorate this island of country-side within the city; secondly, to familiarise ourselves with common plants, native and alien, and a few less common ones and practise our plant identification skills; and thirdly, to observe the changing seasons in the same location

CWS ANNUAL FIELD TRIP 1998 ITINERARY

St. Pierre, Miquleon and the Burin Peninsula

Our itinerary leaves lots of opportunity for modifications and changes.

Weather may dictate changes, but we are very flexible.



Friday July 17

Meet at Ferry dock in Fortune by 1:30 p.m. Take ferry from Fortune to St. Pierre (3 p.m.), then continue on to Miquelon. Arrive at Miquelon about 7 p.m. and proceed to Hotel Miquelon, which will be our base of operations. Perhaps there will be time for an evening wander with our host and guide, Roger Etcheberry. Roger also has a slide show he is willing to treat us to.

Sat. July 18 - 8:30 a.m.

Brief get-together of all participants. Our goal for today is to explore Cape Miquelon on the northern tip of the island of Miquelon, where we will find many arctic-alpine species, and perhaps white-tailed deer.

Sun. July 19 - 8:30 a.m.

Head south to Grande Barachois to investigate the dune and marsh vegetation. Some may want to hike out to see the seals.

Mon. July 20 - 8:30 a.m.

Take the bus to Langlade to catch the ferry to St. Pierre, arriving before dinner. We will explore area prior to leaving the island. Accommodation in St. Pierre will be at the Hotel/Motel Robert.

Tues. July 21 - 8:30 a.m.

Explore the island of St. Pierre.

Wed. July 22 - 8:30 a.m.

Continue to explore the island before leaving for Fortune at approximately 1:30 p.m. We will be staying at Fair Isle Motel. Depending on the weather, we may take a trip to the south coast to explore Dantzac Pt.

Thurs. July 23 - 8:30 a.m.

We will leave the Fortune area and make our way to Marystown exploring either the southern route, or via Grand Bank, depending on the weather. We will be staying at the Hotel Marystown.

Fri. July 24 - 8:30 a.m.

Continue to explore area. Participants can make their way back to St. John's that evening. If you want to stay longer, you will have to make your own arrangements for accommodation Friday evening.

From Pitcher Plants to Umbrellas!

Let's step back to another time, summer of 1794, to be exact and read the words of Aaron Thomas, an Englishman and sailor who arrived on our shores in the H.M.S. Boston. Unwittingly, Thomas left behind a significant contribution to our natural history in the form of his diary!. The following exact gives his exuberate account of his stumbling upon a most unusual plant. Delightful and amusing, his description of the Pitcher Plant even suggests that the Chinese used it as a source of inspiration for the invention of the umbrella. After reading this account can't you just imagined how amazed he would have been if he had discovered that the plant supped on insects!

I am but a sorry Botanist. I was one day ambulating the bank of a Ravine where I met with a very curious Plant. It was bulbous and had a Stalke about fifteen inches high, at the top of which was a Fruit about the size of a Walnutt, which was defended in a most extraordinary manner, for the side to which the Fruit adhered formed a Canopy over it exactly resembling an Indian umbrella. No mortal existence, I am confident, could execute a piece of Art so curious and masterly but a principal part of its singularitys are yet to come, for the Leaves, four or five of which ascend from the Root and which are formed alike the fingers of a human body, is open at the top and perfectly hollow. It grows erect and it is green. The Stamens of the plant are very numerous and fine. When I stoop'd down to look at them I found each of the fingers full of water, some contain'd a Gill at least, which appear'd to have been there for a long time. The more I survey'd this Plant the more it struck me with surprize. I was confident that those fingers were tubes given by Providence to supply its Roots with regular moisture when the heavens had ceased from raining on earth for some weeks, but I was surpriz'd to find it on the border of a Ravine, or indeed in Newfoundland, where the air is commonly moist. I was sure it was a native of a dry Soil and a Hott Climate. I broke off one of the Stalkes (which are very slender) and, on minutely looking at it, I saw that its Canopy formed a perfect and complete umbrella-its fibres as fine as the finest Silk. Holding it in my hand I utter'd a Solilguy-Surely Thou art a Native of a more gratefull Clime then this. Asia, or the sultry Plains of China claim Thy birth; Thy position and figure declare Thou art a Sojourner here and hast basely suffer'd for Thy temporary emigration.

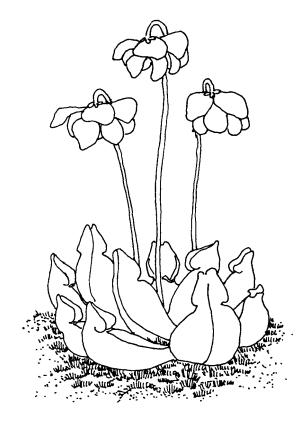
When I had finish'd I fancyed to myself that the

Murray, Jean M. The Newfoundland Journal of Aaron Thomas. Longmans Canada Ltd. 1968. (Used with editor's permission.)

1

Plant answered me thus:-It is a fact that I am a native of China, where I rare my head to several feet in height. From my slender frame, my delicate Texture, my fine fibrous Canopy, its Silky surface, its spiracle Dome, its zig-zag edge, and what is of greater importance then all the shelter which I afford that valuable (although unknown) Fruit from injury untill I bring it to maturity, and from my thin, slender stalke-from the union of these plain and external propertys I can boast that it is from me that the Chinese took the hint of making umbrellas. As to your finding me here, to that I say nothing except that my specie is not confined to Asia alone. Here I remain un-noticed and unmolested, untill casual accident bent your course to this untrodden spot.

Having painted to myself this suppos'd answer I was resolv'd to make the most of the hints, and walking further I met two or three more of the same Roots, which I gather'd and carefully brought out of the Woods. I have availed myself of showing these Plants to those who I suspect likely judges, but have gained no information, so that at present I shall class them as nondescripts untill an opportunity offers to gain better information.



NEWFOUNDLAND & LABRADOR PLANTWATCH 1998

What is PlantWatch?

What is really happening to our climate? Is Newfoundland & Labrador warming or cooling? If you're an outdoor enthusiast of any kind, be it gardener, hiker or birder you can help answer these important questions! By becoming a 'PlantWatch' volunteer, you will be participating in tracking changes in our climate. 'PlantWatch' is a global phenology survey, and we are adding our province to the network. 'Phenology' is the study of timing of important events in the lives of plants and animals, for example when plants leaf out, and flower as the weather warms in spring. With your help we can track the 'green wave' across our province. By increasing our awareness of Newfoundland & Labrador wildflowers, we will ensure our wild heritage will be protected in the future.

How are the flowering dates used?

Started first by the Swedish botanist Carl Linneaus in 1750, several centuries of plant phenology records from Europe confirm that plants are very sensitive weather monitors. By simply watching and recording when spring wildflowers bloom, we can track weather changes in our province, and then compare them to the rest of Canada and the world. Alberta has been recording blooming times of spring wildflowers for more than 10 years, and have found that spring has been coming earlier there. Nova Scotia initiated their NS PlantWatch survey in 1996, with over 200 observers throughout the province recording blooming times of various wildflowers.

What, Where and When to "PlantWatch"

The attached list includes 12 different wildflowers which have been selected for the NF&LAB PlantWatch. These wildflowers were selected as they flower early in the season, which means they are more sensitive to daily temperature than daylength. Not all of the chosen plants are found throughout our province, but have been included for comparison to mainland locations (for example, Trailing Arbutus). Any contribution you can make is important to our survey, regardless of the number of wildflowers you actually record.

The date of flowering means when the flower buds open and the petals unfold to show the pollen-bearing stamens. For trees with catkins, like popular, the yellow pollen release may be the first visible sign of flowering. On the survey form, record the dates when 10% (that means a few flowers on the same plant or in the area surveyed have opened), 50% (half of the flowers are open, or open flowers are common) and 90% (most of the flowers on a plant or in the area have opened) of flowers have opened. Please consult the attached descriptions of each species or a field guide for help with identification, or contact people listed on the form.

To select your 'PlantWatch' area, chose a location you can visit on a regular basis (every 3-4 days), preferably a site which is easily accessed and easy to describe. Please refer to the survey form to familiarize yourself with the types of environmental descriptions we are using. It is very important you give the exact location of your area, either by Latitude/Longitude, UTM or direction to the nearest town. Identify the plants that you will be watching, then make sure you are watching the same plants each time you visit your site. Finally enjoy yourself, you're making history!

NF & LAB Wildflowers - Flowering Data Survey

Observation year

Mailing address	Fax			E-mail	Postal code	
Location of your observations: Legal description or closest roads, so that location can be pinpointed on a map. If some flowering dates are from different locations, please note which dates and describe these locations too. Nearest village/town (direction): Longitude and Latitude: (if available). Name of nearest crossroad (direction):						
Species	Flowering dates (Flower buds open:			Remarks		
	First 10% (1 in 10)	Mid 50% half	Full 90% (almost all buds open)	Please use the listed numbers as abbreviations to add details on your observations example: 1,5-SE, 8, 12, 1		
1. Coltsfoot - Tussilago farfara					3- no sun Slope/Direction	
2. Trembling Aspen - Populus tremuloides					4- flat area 5- gentle slope* 6- steep slope*	
3. Sweetgale - Myrica gale					Flowering	
4. Rhodora - Rhododendron canadense					7- no flowering 8- average numbers 9- abundant	
5. Leatherleaf - Chamaedaphne calyculata					How many plan.	
6. Larch - Larix laricina					11- <25 plants 12- >25 plants	
7. Pink Lady's Slipper - Cypripedium acaule					13->100 plants 14->1000 plants	
8. Starflower - Trientalis borealis					Plant habitat 15- forest 16- shrub	
9. Bunch/Cracker Berry - Cornus canadensis			7.6		17- bog or wetland 18- roadside 19- garden	
10.Clintonia/Bluebead - Clintonia borealis					20- other (specify) * please add one of	
11.Lilac - Syringa spp.					the following: (E, N, NE, NW, S, SE, SW, W)	
12.Red Maple - Acer rubrum						

Even a few dates recorded above will be valuable. Thank you for this contribution! Use the back of this sheet for further comments on the weather, plants, etc.

For Further Information Call:

Observer's name(s)

MADONNA BISHOP 737-3328 HENRY MANN 637-6245 LUISE HERMANUTZ 737-7919 Please mail by September 15 to: Madonna Bishop, M. U. N. Botanical Garden., St. John's, NF A1C 5S7. Fax: (709) 737 - 8596

e-mail: mbishop@morgan.ucs.mun.ca

Starflower - Trientalis borealis

A woodland plant with a creeping rootstock which sends out erect branches 7 to 22 cm (3-9") tail. Each of one or two star-shaped flowers (early-mid June) has 6 or 7 white petals on a thread-like stalk above a whorl of 5 to 9 shiny, tapering leaves.

Clintonia/Bluebead - Clintonia borealis

A woodland plant with 2-3 basal leaves that are wrapped around each other. The leaves are oblong and shiny with parallel veins, 15-25cm (6-10") long.

The flower stem emerges between the leaves and rises to a height of 10-30cm (4-12"). At the top of the flower stem 3-6 greenish white flowers bloom mid-late June.

Red Maple - Acer rubrum

A small tree with grey bark occurring in most parts of the Island except the Northern Peninsula. New deep-red, hairless twigs exhibit opposite red buds having pairs of white-margined scales. Flowers are produced in spring before the leaves develop. Male and female flowers

are borne in clusters, often on different trees, but sometimes on different branches of the same tree. Male flowers produce clusters of yellowish-red stamens. Consider flowering to occur when anthers are bursting to release pollen. Clusters of female flowers are bright red and have a sticky nectar.

Larch/Tamarack - Larix Iaricina

A common small tree of wet forests and peatlands throughout the Island. It is our only conifer that loses its leaves each fall. Winter branches are covered with short "knobs which in spring may give rise to either a leaf cluster, a male cone ("flower"), or a female cone ("flower"). Both male and female cones may be produced on the same branches. Male cones look like little mounds of brown to orange-yellow pollen sacs with papery scales at their base.

Consider flowering to occur when pollen sacs burst to release their clouds of pollen grains.

Bunch/Crackerberry - Cornus canadensis

A herbaceous plant can be found in barrens or in woodlands as a pioneer and grows to 8-15cm (3-8") high with clusters of greenish-white, dark centered flowers surrounded by 4 large white petal-like bracts which gives the appearance of

bracts which gives the appearance a single larger flower. The leaves occur in pairs, 1 pair of broad-oval, pointed leaves and 2 pairs of somewhat narrower leaves.

Blooms mid-late June.

Lilac - Syringa spp.

A deciduous shrub up to 7m high, with smooth green leaves that appear before the dense clusters of fragrant purple flowers. Lilacs are the only shrubs with opposite leaves that are mostly heart-shaped and not toothed.

Branches lack central end buds and the cone-shaped flower heads grow from last year's wood. Each tiny flower has 4 petals and 2 pollen-bearing stamens. Blooms mid-late June.

Sweetgale - Myrica gale

Deciduous shrub 1-1.5m high with brown twigs. Leaves hairy, alternate, spatula-shaped (usually rounded at the tip and tapering at the base). Flowers are non-drooping catkins and sexes are usually on separate plants. Male flowers 1.2cm long, yellowish with reddish scales crowded at the end of the twig. Female flowers are similar with ruby red styles. Blooms (male flowers release pollen) in April-May before the leaves open. This shrub is found in

wet habitats around the province.

Trailing Arbutus/Mayflower - Epigaea repens

A low creeping shrub with broad evergreen leaves arranged alternately on the stem. The slender stems and leaf petioles are covered with brownish hairs as are the leaf margins. Flowers are white to deep-pink, tubular, and with 5 spreading petal tips. They have a pleasant spicy fragrance. Found in forest clearings and edges in the southwest

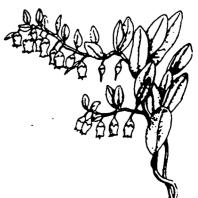
and central portions of the Island. A very early spring bloomer

(mid-May - June).

Leatherleaf - Chamaedaphne calyculata

An evergreen shrub growing 0.5-1.0m high. Leaves are alternate, oblong, leathery with the upper surface dark green and the under surface yellowish.

Flowers white, bell or um shaped forming drooping one-sided leafy clusters at the ends of branches. Blooms from mid-May to late June. Can be found in bogs, around ponds and in other wet habitats throughout the province.



Coltsfoot - Tussilago farfara

One of our earliest flowers (mid April), often blooming in warm sunny spots even before all the snow is gone. It is common along roadsides and other disturbed sites, especially in populated areas of the Island. The yellow, almost "dandelion-like" flowers appear singly on the tips of short scaly stems in spring. The large "horse-shoe" shaped leaves develop later. Flowers may "close" somewhat on cold overcast days.

Trembling Aspen - Populus tremuloides

A small to medium hardwood tree (up to 20m) with pale greenish gray bark and shiny brown twigs with sharp-pointed buds. Male and female flowers are borne on different trees, in dangling catkins that appear before the leaves. The catkins each have hundreds of tiny hairy flowers without petals. The male catkins are in bloom when yellow pollen is released (early May - early June).

Rhodora - Rhododendron candadense

A low shrub common in rocky barrens, poorly drained soils, wet pastures and around edges of bogs. The terminal bud which becomes the flower is large, yellow or pink, oval and pointed. The lateral buds which become leaves are small and clustered closer to the ends of twigs. The rose-purple flowers are funnel-shaped, irregularly split to the base and bloom (late May - early June) before the leaves appear.

Crown Vetch (Coronilla varia L.) in Western Newfoundland

Henry Mann and Monique Vassallo

e first became aware of Crown Vetch from a specimen collected by I. J. Green on September 10, 1983, for which the locality is given as "Roadside embankment, Arterial Route, Corner Brook". A second record is listed in Bill and June Titford's wildflower book "at the edge of a clearing alongside the road at Flat Bay, a small community south of St. George's on the west coast of the Island"1 Although no specimen is available from this site, a color photograph taken in mid-July accompanies their description. Just recently, on October 20, 1997, a single plant was discovered growing on the edge of a parking lot on O'Connell Drive, Corner Brook, between Walbournes Road and Boone's Road. Samples from this plant have been collected and are housed in the Sir Wilfred Grenfell College Herbarium. To our knowledge this species has not been previously recorded from Newfoundland and it is not found in the standard sources for the Island H. J. Scoggan reports it in southern Canada from British Columbia to Nova Scotia²

Crown Vetch is an introduced species native to central and southern Europe and western Asia where is has been used as a forage crop for farm animals.3 In North America it has been mainly planted along roadsides and on embankments to stabilize the soil and to prevent erosion. One Canadian supplier, McConnell Nurseries, offers the cultivar "Penngift" which it bills in the following manner, "Miracle Crownvetch; Easy to grow on slopes, banks and other areas where little else will grow. Chokes out weeds and holds soil in place...... Grows best in dry soils..." Richters, in their herb catalogue, offer it for potential medicinal properties using the following description, "The plant is being tested as a substitute for purple foxglove in the treatment of heart disorders. Used in folk medicine to treat disorders of the prostate. Should not be used without medical supervision."5 The plant contains several compounds which are toxic to

humans and animals but which are apparently detoxified by the action of rumen microorganisms and is therefore considered suitable feed for ruminants such as cows and sheep.⁶

Coronilla varia is a perennial belonging to the Pea or Bean Family (Fabaceae or Leguminosae). It is a straggling plant with stems spreading over the ground or becoming somewhat upright. Stems may be 40 to 100 centimeters or more in length with many pinnately divided leaves arranged alternately (figure 1). Each compound leaf ends in a single leaflet; there are no tendrils as in some other legumes which also have the common name "vetch". From the axils of the leaves arise the flowering stalks. Each long flowering stalk has at its summit a cluster of pea-like flowers arranged in a flattened inflorescence which in botanical jargon is termed a "capitate umbel". The scientific genus name "Coronilla", which means "little crown", describes this flower arrangement. A single flower may vary from white, pale pink, to deep pink, usually multicolored. The protruding pointed tip of the fused keel petals is dark purple. Unlike many other legumes, the flower produces little nectar, but bees still visit flowers to gather the rich pollen. ⁷ Seed pods are long, thin, and four angled with constrictions between the seeds where they break apart when mature. Seeds have the shape of a kind of axe head, hence one of the common European names "Axseed". Like other legumes, its roots develop nodules which help to enrich the soil with nitrogen.

The O'Connell Drive plant is a vigorous specimen with stems up to one meter and spreading almost as much. On the collection date of October 20, 1997, it was profusely flowering. This was very late in the season, but yet no mature seed pods were present. The plant appears to be too large and well established to be a seedling of the current year, so the question arises; Is the season here long enough for it to regularity set viable seed? This may be one reason why it has not yet become dispersed, but only found sporadically as scattered plants even though with increasing practices such as hydroseeding it might be expected to be more common along roadsides.

As with a number of species, it may be vegetatively vigorous, but at the northern limit of its sexual reproductive capability. Roland and Smith⁸ suggest that it is "doubtfully hardy in Nova Scotia.", and the Encyclopedia of Horticulture⁹ states that it is hardy "at least as far north as Maine". The McConnell Nurseries Catalogues listed it as hardy to zone 3, but later revised this to zone 4 which takes in southern Newfoundland, but of course, these zone boundaries are only gross approximations which do not take into account locally varying conditions. If the O'Connell Drive plant survives the winter, we will follow its progress in the next growing season to see if viable seeds are produced.

Illustrations were prepared by graphic artist Warwick Hewitt with the assistance of the botany resources of the Sir Wilfred Grenfell College.

Literature Cited

- 1. Titford, B. and J. Titford. 1995. A Travellers

 Guide to Wild Flowers of Newfoundland,
 Canada. Flora Frames, St. John's.
- Scoggan, H.J. 1978. <u>The Flora of Canada: Part</u>
 National Museums of Canada, Ottawa.
- 3. Jelitto, L. and W. Schacht. 1990. <u>Hardy</u>
 <u>Herbaceous Perennials: Volume 1</u>.
 Timber Press, Portland, Oregon.
- 4. McConnell Nurseries. Port Burwell, Ontario. NOJ 1T0.
- 5. Richters, The Herb Specialists. Goodwood, Ontario L0C 1A0.
- 6. Cooper, M.R. and A.W. Johnson. 1984.

 <u>Poisonous Plants in Britain.</u> H.M.S.O.
 London, G.B.
- Cox, D.D. 1985. <u>Common Flowering Plants of the Northeast</u>. State University of New York Press, Albany.
- 8. Roland, A.E. and E.C. Smith. 1969. The Flora of Nova Scotia. The Nova Scotia Museum, Halifax.
- 9. Everett, T.H. 1981. The New York Botanical
 Garden Illustrated Encyclopedia of
 Horticulture: Volume 3. Garland
 Publishing, New York.

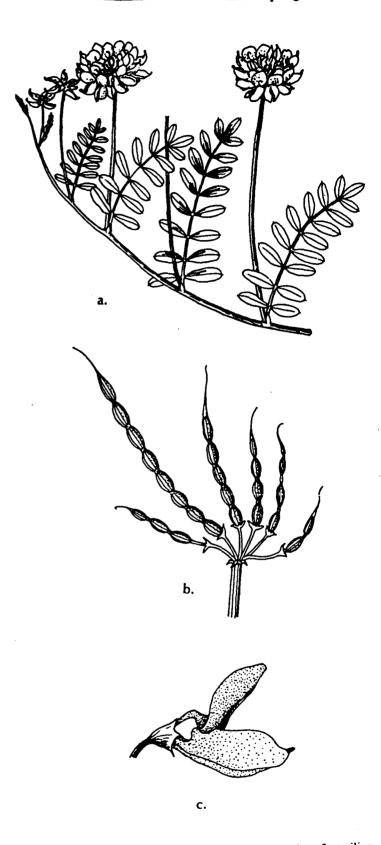


Figure 1: Crown Vetch (Corinilla varia L.) a. Portion of a trailing stem with compound leaves and flower clusters. b. Seed pods (legumes) showing prominent constructions between seeds. c. A single flower. Note the dark purple pointed tip of the keel petals

Humber Natural History Society

RARE NEWFOUNDLAND WILDFLOWER 14.

In order to develop a better understanding of the distribution of our rare plants, especially those of the West Coast, a series of these sheets will be made available to interested naturalists. Each sheet will deal with a single species known only from a few localities on the Island. Please report any sightings of rare plants to Henry Mann, Biology Department, Sir Wilfred Grenfell College, Corner Brook, Newfoundland, A2H 6P9, or call 637-6245 (work) or 686-2340 (home). Records will be kept in the S.W.G. College Herbarium

Plant Name: Common - Pipsissewa, Prince's-Pine

Scientific - Chimaphila umbellata (L.) Bart.

Characteristics:

A perennial, slightly woody forest herb, 10 to 25 centimeters tall, that retains its shiny, leathery leaves througout the year. Stems arising from creeping rhizomes bear leaves in whorls of usually three to five. Often leaves are not perfectly whorled, but slightly scattered. Three to seven flowers make up an umbel-like inflorescence. Flowers droop in the bud, but become upright as they age. Each flower is saucer-shaped with five slightly cupped, waxy, pink petals, In the centre is a large green, rounded pistil surrounded by ten somwhat unusual stamens. Pollen is shed through pores at the tips of the pollen sacs (anthers).

Habitat:

Well drained ("dry") spruce/fir forest, often in dense or heavily shaded woods.

Flowering Season:

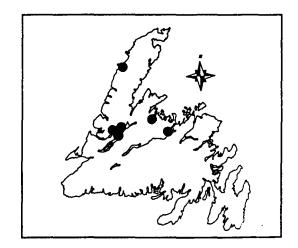
A two or three week period from late July to the middle of August in the Humber Valley of Western Newfoundland

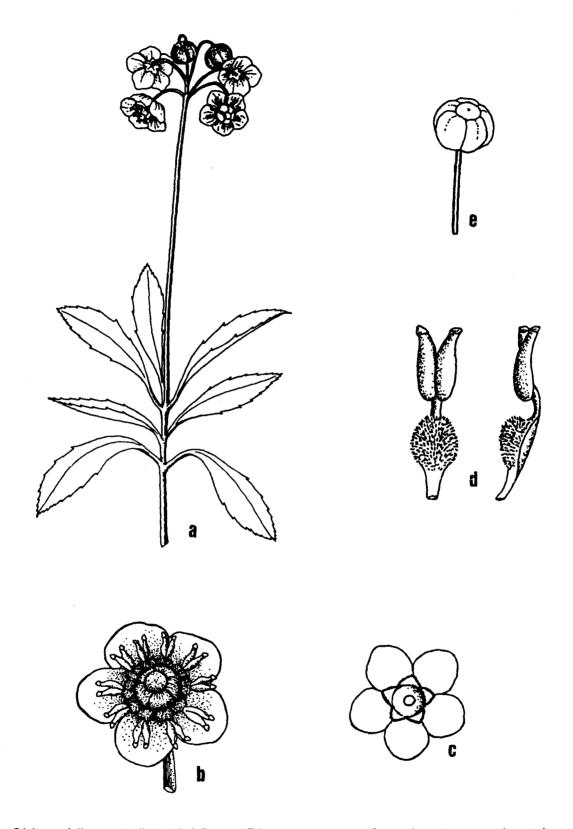
Known Distribution:

From the eastern Humber Valley to north of Grand Falls. One location is known from the Northern Peninsula near Port au Choix.

Diagrams: See reverse side of page.

Consult: Mann, H. and E. Butt, 1997, in The Osprey, Volume 28(4), pp. 82-88 for details of this species in Newfoundland. Diagrams can also be found in the Peterson/McKenny field guide (1968) p. 27 and 235, and in Newcomb's Wildflower Guide (1977) p. 285.





<u>Chimaphila umbellata</u> (L.) Bart. (Pipsissewa): a. One shoot, approximately normal size. b. Flower, faceview. c. Flower, underside. d. Two stames, front and side view. e. Mature seed capsule. Illustrations b-e enlarged. Drawings by W. Hewitt.

From the Plant Press

One of our members, Joyce Cho, was invited last September by our parent organization, the Canadian Wildflower Society, to join a group of twenty-one wilderness artists at an art camp in Temagami, a Northern Ontario wilderness area famed for its beauty and old growth pine forests. An exhibition of the artworks originating at this event will be on display at the Arts and Letters Club of Toronto (416-924-6807) from June 21, 1998 to July 3, 1998. It will later move to Temagami (Ojibway for "deep water by the shore"), prior to an auction in aid of the Canadian Wildflower Society some time in August. Congratulations, Joyce, and good luck!

Our society recently undertook a conservation project of some historical significance and paid for the framing of two pictures by Mary Southcott (1862 - 1943), founder of the General Hospital's School of Nursing. Miss Southcott had a keen interest in our native wildflowers and she had been engaged to Arthur C. Waghorne, clergyman and naturalist (see *Sarracenia*, Volume 7, Number 2), although they never married. At our April meeting, Janet Story, director of the Lillian Stevenson Archives and Museum, Leonard Miller Centre was presented with two pictures which are now on display at the archives.



Glenda Quinn (R) presents Janet Story (L) with Southcott's pictures.

In April I visited the Outdoor Show at the Glacier in Mount Pearl and among the very interesting booths and displays I recognized a familiar face. It was Mary Coffin, one of our newer members, and she was displaying a product of hers. Mary makes and sells mosquito shirts and pants, without zippers or buttons which are chemical free and made from a no-ceeum mesh. The pants and shirts are one size and sell for \$25. Because hers is a cottage industry, they are tax free. Phone (709) 368-7363, fax (709) 368-7364 or e-mail ncoffin@nfld.com

Recently I read an interesting book called Noah's Garden: Restoring the Ecology of our Own Backvards by Sara Bonnett Stein. This book shows us how our landscape style of neat yards and gardens has devastated suburban ecology, wiping out entire communities of plants and animals. When Stein realized what her intensive efforts at making a garden had done, she set out to "ungarden." Her book interweaves an account of her efforts with an explanation of the ecology of gardens. Coincidently, this month I picked up the May issue of Canadian Gardening and noted with interest that the Editor-in-Chief, Liz Primeau, mentioned Stein in her column. She had attended a weekend-long Great Canadian Gardening Conference at the Civic Garden Centre in Toronto where Stein was one of the speakers. Primeau was so impressed by the eloquent and persuasive message that she ran an edited version of her talk in the May issue. I was so taken by the article that I photocopied it and gave copies to my friends. Why not check with your neighborhood library or bookstore for the book or magazine?

Thank-you, Henry Mann and Monique Vassallo for your articles and the illustrations by Warwick Hewitt. Luise's and Madonna's work and information on PlantWatch will certainly enable our society to make a contribution to our environment and the health of our natural resources. Space in this issue did not allow me to print material on Nova Scotia's PlantWatch that Luise provided me but I

have it on file and I will send it to anyone who is interested. Thank-you, Joyce, for the exquisite drawing of the pitcher plant that illustrates an excerpt from Thomas' diary. This is my first newsletter and so please bear with me as I develop my computer skills (notice my collation). Sue Meades did such a marvelous job for many years that we would all eagerly await the next issue of Sarracenia and I'm sure I speak for all us when I say that we appreciate the time and work and creativity that went into each newsletter. Thanks, Sue.



Table of Contents

PlantWatch page 1, 7- 12

Notes from the Presidents page 2-3 Summer Field Trips page 4-5 From Pitcher Plant to Umbrellas page 6 Coronilla varia (L.) Crown Vetch page 13-14 From the Plant Press (editor) page 17

CWS-NF Executive for 1998 -2000

Howard Clase	President	737-8748 (w) 753-6415 hclase@morgan.ucs.mun.ca
Vacancy	Vice-President	
Luise Hermanutz	Past-President	737-7919 lhermanu@morgan.ucs.mun.ca
Carmel Conway	Treasurer	722-0121
Glenda Quinn	Editor/Secretary	834-8588 737-3020 (w) glquinn.nfld.com
Todd Boland	Director	753-6027
Tom Smith	Director	754-0949

Our society meets on the first Wednesday at 8:00 p.m. of every month from October to May at the field house of MUN Botanical Garden, Mount Scio Road, St. John's. Dues are \$10.00 annually and are payable in May for the upcoming season. Please send to Canadian Wildflower Society, Newfoundland Chapter, P.O. Box 23012, Churchill Square Postal Outlet, St. John's, NF, A1B 4J9. Please include your mailing address. New members are welcomed.

The next deadline for articles for Sarracenia is September 15, 1998. Please send them to Glenda Quinn, Box 448, Manuels, NF., A1W 1M9 or e-mail glquinn@nfld.com