

Sarracenia

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Newsletter of the Wildflower Society of Newfoundland and Labrador.

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Coralrhiza maculata
Heather Saunders



Moneses uniflora Daphne Gillingham

President's Message

The unusually good spring weather seems to be fast-forwarding wildflower blooms. **Gene Herzberg's** reporting of *Diapensia* (*D. lapponica*) and *Loiseleuria* (*L. procumbens*) in bloom mid-May is certainly encouraging. The small Northern White Violet (*Viola macloskeyi* subsp. *pallens*) has been in bloom for several weeks now in my backyard, and wild Lily of the Valley (*Maianthemum canadense*) seems ready to open up. I suspect that there might be a little rearranging of our planned outdoor walks to accommodate the "climate change".

I would like to thank our indoor winter speakers for their fantastic presentations. **Todd Boland** delighted us with his "Spring Flowers of the Pyrenees" followed by "Flora and Fauna of Trinidad and Tobago". We encourage Todd in his travels, as we delight in seeing his spectacular images upon his return! **Wilf Nicholls** spent an evening explaining the taxonomic reassignment of plants formerly in the Figwort Family (Scrophulariaceae-snapdragons). From Wilf's most interesting lecture we learnt of the amazing advances in DNA testing and how it has redefined botanical classifications.

Attached is the schedule of our summer walks, which takes us to some exciting new spots on the Avalon. I wish to thank **Howard Clase** for planning this year's schedule. We encourage members to avail of the large number of daytime walks being held over the summer, even if they are unable to overnight.

John Maunder has drafted the rules of our Third Annual Wildflower Society Photo Contest. Special thank-you to judges **Lydia Snellen**, **Helen Jones** and **Ken Knowles**, for their expertise and encouragement.

Finally, special thanks for our new Treasurer-Membership Secretary, **Karen Herzberg**, who spent several weeks this spring sorting out and reorganizing our books.

If you discover anything interesting in your botanical excursions, please share with us via e-mail!

Carmel Conway

Treasurer's Report: MAY 2009

In February irregularities had caused concern with the society's accounts, but with my election as Treasurer in March, and with the cooperation of the Executive, the problems have been resolved. The Society's balance is presently just over \$1800.00. If you have any questions

concerning our financial situation, please contact me by telephone, 709-753-6568 or by email, karenherzberg@warp.nfld.net.

Karen Herzberg, Treasurer and Membership Secretary

IN MEMORIAM

Dr. Kenneth Proudfoot & Dr. Clare Neville-Smith

Our society continues to mourn the recent passing of two long-standing members. On April 3rd, 2009, Ken Proudfoot passed away, followed by Clare Neville-Smith on May 3rd, 2009. Both were also very active volunteers at the Botanical Garden and will be deeply missed by all.

A message from your Editor.

Another issue with the major contributions from the West Coast, aren't there any botanists with word processors on this side of the Island?

New rules for the photo competition too. A selection of pictures from last year's competition will be found on the cover and on p. 26. As Editor of this august journal I should like to draw your attention to John's plea for pictures not to be downsized too much. Inserting pictures is one of the most complicated jobs I have to do, and I thoroughly agree. Printing requires much higher resolution than a screen does, and what seems fine on your computer or as an email to Gran does not come out so well on paper. A picture that fills a standard 1024 pixel wide screen would only give a 9 cm. (3.5 inch) wide print at 300 dots per inch. So take your pictures with the highest possible resolution and keep those big files in your archive; you can always downsize, but quality upsizing hasn't yet been discovered.

The 2009-10 Executive

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|--|--|----------|
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Uncommon Wildflowers of Newfoundland 3: Dwarf Snapdragon (*Chaenorrhinum minus* (L.) Lange).

By Henry Mann.



Figure 1: Ready for the herbarium.

This small snapdragon is a “come-from-away”, probably introduced to the Island in relatively recent times. The first occurrence on the Island was reported from a disturbed area around a commercial building in Stephenville in 1997 (Meades et al. 2000). More recently a second population was located at Norris Point in the gravel parking areas around the main wharfs. Specimens from both locations are deposited in the SWGC Herbarium (Fig 1). Because it is a diminutive plant with small flowers inhabiting disturbed places and poor rocky soils, it may have been overlooked by individuals who often pay scant attention such locals and to “insignificant weeds”. I suspect it is more common than we are aware. Originally introduced from the Mediterranean region of Europe, it is found throughout Canada and the U.S.A. Being a small annual it is not usually considered a serious weed of gardens and agricultural fields where it can easily be controlled by

cultivation methods. In fertile soils it can, apparently, be easily crowded out by the taller vegetation.

The plant can vary, depending on growing conditions from 5 cm to 40 cm in height. The Newfoundland plants I have seen have been less than 15 cm tall. Plants are

unbranched or only sparingly branched from leaf axils. Leaves are up to 2.5 cm long, narrow, stalkless, smooth-margined and pubescent. Lower leaves are opposite while the upper ones become alternate. Stems are covered with short glandular sticky hairs.



Figure 2: The open mouth.

Most of us are familiar with garden snapdragons (*Antirrhinum* spp.) or the flowers of our toadflaxes (*Linaria* spp.) whose throats are closed by tightly appressed upper and lower lips. Who has not opened the mouth of such a flower by pulling down on the lower lip and then watched as it “snapped” closed when released? Flowers of this type are somewhat selective for the type of insect that can gain entry to the corolla tube to obtain nectar and to transfer pollen from flower to flower. Insects must be of the appropriate size and weight relative to the flower size to gain entry and to be successful pollinators. The lower lip of the flower affords a landing platform for pollinating insects. When pollinators leave, the flower snaps shut excluding would-be nectar robbers of little pollination value.

But not all snapdragons snap. Dwarf Snapdragon has a flower somewhat similar to toadflax and at one time it was included in the *Linaria* genus as *L. minor* L. The corolla

tube at its summit has a two-lobed upper lip and a three-lobed lower lip and a spur like that of toadflax, but unlike toadflax the two lips do not completely seal entry; there is a small opening to the interior. The corolla is usually some shade of lavender, light purple, white, or some combination of these colours. The *Chaenorrhinum* flower is only about a centimetre in length, but quite as lovely and showy when viewed through a 10 x hand lens.

Flowers are usually borne singly on a short stalk in the axils of upper leaves, occasionally two flowers in an axil. Seeds are produced in hairy capsules and released through two pores at the capsule tip. Stephenville plants were in early bloom on July 21, 1997, whereas Norris Point plants were mostly with mature seed capsules August 24, 2008, but with still a few flowers in uppermost youngest leaf axils.

Dwarf Snapdragon was at one time included in the Scrophulariaceae Family, but recently has been

transferred to the Plantaginaceae along with other related genera such as the toadflaxes (*Linaria* spp.), the speedwells (*Veronica* spp.), the foxgloves (*Digitalis* spp.), and others. The name “*Chaenorrhinum*” means “gaping snout” (i.e. “open-mouthed”), probably referring to the small opening between the upper and lower lips (Fig 2). “*Minus*” means “smaller”, referring to the plant’s stature compared to other “snapdragons”.

Look for this little snapdragon in your travels. It will be found in sparse weedy vegetation on poor rocky gravelly soils. The spurred lavender flower is quite distinctive when viewed with a hand lens and the whole plant is glandular hairy with small narrow leaves. The seed capsules are also distinctive, releasing seeds through two pores after the little lids (opercula) have fallen off, a common feature in the snapdragon family (Plantaginaceae).

Happy Botanizing!

Cited Literature: Meades, S.J., S.G. Hay, and L. Brouillet. 2000. Annotated Checklist of the vascular Plants of Newfoundland and Labrador. <http://www.digitalnaturalhistory.com/meades.htm>

Why is *Goodyera oblongifolia* Rafinesque a rare wildflower in Newfoundland and Labrador?

By Andrus Voitk and Maria Voitk.

In 2005 we discovered a patch of *Goodyera oblongifolia*, Mackenzie's rattlesnake plantain, on a hillside near our house (Figure 1) (Voitk, 2009). Before this, *G. oblongifolia* had been collected over 35 km from the present site, near Serpentine Lake, in 1955 by Rouleau, last confirmed to be thriving there in 1995 (P.M. Brown, pers. comm.). A concerted search of the Serpentine Lake location in 2003 failed to turn up any plants, making the present find the only known site for the taxon in

Newfoundland and Labrador. That certainly qualifies *G. oblongifolia* for uncommon status, making it a fit subject to explore this topic. Inspired by Mann's essay on uncommonness, from which the title is adapted (Mann, 2009), this communication reports our observations of the Humber Valley colony and examines the contribution of Mann's four factors of uncommonness—perception, habitat, climate and introductions—to our observations and to the uncommonness of the species.

Observations

We have observed the Humber Valley colony throughout the season since 2005. In 2005 we counted about 40 rosettes. This year, just after snowmelt, we counted over 53 rosettes. Small inflorescence spike tips become visible in the centre of the evergreen rosettes by early June and reach 2-3 cm height by the end of June. The spikes reach their full height in July, buds begin to open in the second week in August and are in full bloom a week later. 10-15

flowers open from below upwards, the last one withering in early September, about four weeks after the first bud opened. The entire spike is dead by the last half of October. The number of flower spikes for this population of 40-50 plants has varied from 0 to 3 each year.



Figure 1: Flower spike at beginning of flowering, 05.08.13

Not all inflorescences lasted: of the 8 spikes seen to grow over 4 years, 4



Figure 2: *Deroceras laeve* on leaves of *G. oblongifolia*.

remained intact to the end of flowering, the others presumably felled by slugs. 3 of the 4 intact spikes had some evidence of damage, presumably by slugs. Probable slug damage to the spikes becomes evident soon after they develop and continues to the end of the season. There seems to be disproportionately less probable slug damage to the leaves: obvious signs of damage become evident in July and at the end of the season consist of 1-2 relatively small holes in 1 leaf out of 3. We have not observed a slug eating a plant, but have seen *Deroceras laeve* on the plants on two occasions (Figure 2).

Up until now, no flower on any of the spikes produced seed. In 2008 there were 3 spikes, 2 of which



Figure 3: Overwintered flower spike from 2008, photographed 09.05.17. Note two of the thin ovaries have split (arrows), as if they had released seeds.

survived to the end of flowering. The ovaries of these looked slim and

collapsed, as in past years. However, when examined after snow-melt, May 2009, 2 of the thin seed capsules of one spike had splits, suggesting they may have released some seeds (Figure 3). Henry Mann examined these capsules and recovered clumps of immature seeds and a few mature seeds from them (Figure 4).



Figure 4: Seeds recovered from 2008 seedpods. Two mature seeds (upper R one with tip broken off) and clumped immature seeds (Photo, Henry Mann).

Discussion

In the fifth year of observation we reach three conclusions.

1. Our habitat and climate support this orchid's requirements to thrive for several years and to propagate by rhizome formation.
2. The plant is usually barren, thus unable to contribute to remote colonies.
3. Pollination must have taken place on at least one occasion, but seed capsules did not reach the full, plump shape seen elsewhere, suggesting a fruiting problem.

The rhizomes of *G. oblongifolia* grow in the superficial duff layer. The plant is destroyed by fire, requiring 35 to over 200 years to reappear, and its reappearance after clear-

cutting parallels that of fire loss (Reeves, 2006). The seeming dedication of our dying forestry not to quit the Island before the last standing tree is down, seems to be designed to keep *G. oblongifolia* a historic species in our province. As suggested by Bruce Roberts (pers. comm.), defoliation by spruce budworm (*Choristoneura fumifera*), similar in effect to clearcutting, may be the reason for the disappearance of the Serpentine Lake population. Association with balsam fir seems to be important to its welfare; the decrease to our balsam fir population brought on by our increasing introduced moose population may also help keep *G. oblongifolia* uncommon.

Only a small number of rosettes flower in any year. The flowering rosette dies after propagating others from its rhizome. Each flower releases its pollen before the stigma becomes receptive, so it is unlikely to self-fertilize and depends on pollination to form seed. The plant is self compatible, so in the absence of nearby other individuals, there may be no outcrossing and fertilization may be autogamous (Ackerman, 1975).

Flowers last about two weeks and seed capsules require another 6-8 weeks to mature (Ackerman, 1975). Seeds are very small and light (0.1 x 0.6 mm), with a proportionately large "wing" surface, made for dispersal by wind over long distances (Case, 1964). Each capsule contains about 500 seeds; about 80% of seeds fertilized in the wild are viable (Ackerman, 1975). Because orchid seeds are so small, they have no nutrition to support germination. For germination to occur, a seed needs to meet a mycorrhizal fungus that will supply the germinating plant with nutrition. The fungus is specific for

each germinating orchid, requiring a seed to meet the "right" symbiont in order to develop. *G. oblongifolia* seems to be tolerant of a variety of non-wetland soils, so the determinant for growth sites may be the requisite fungus, rather than soil attributes. In laboratory conditions, time from germination to a plant with roots takes about two years (Ardritti, 1982).

Rhizome propagation can build a strong local colony, but without remote spread by seed an uncommon wildflower only becomes more uncommon, until a final accident makes it extinct. Relative barrenness, therefore, seems to be a major cause of this wildflower's uncommonness. Because so many odds are stacked against seeds' developing into plants, many seeds are produced. We have not observed plump seed capsules in this colony—even when they were shown to contain seeds, they looked so thin that they were suspected of being barren. From the foregoing it follows that *G. oblongifolia* is mostly barren in Newfoundland either due to lack of effective pollination or inability to form adequate seed after pollination: failure of one of these processes holds the key to this plant's uncommonness. Let us examine its uncommonness according to the criteria proposed by Mann, looking specifically how those criteria influence either potential key process.

Perception

No doubt perception contributes somewhat to the uncommonness of *G. oblongifolia*. A Natural Resources Canada model suggests that a large area of Newfoundland and Labrador satisfies this plant's climatic requirements (2007), most of which is unexplored. Even the more accessible areas may have

considerably more colonies than the single one known to date. However, there is a correlation between perception and commonness and if a plant is not seen, the overwhelming reason is likely that it truly is uncommon. If the smaller and more nondescript *G. tessellata* and *G. repens* are well-known common wildflowers in our province, it is quite unlikely that the largest relative has been overlooked. After all, while it may blend in with the understory in June or July, it has several features that make it stand out at other times: the leaves remain live and green when others have wilted and decomposed, they have a distinctive veined pattern and wavy edge, they form an unusual rosette, and they carry a flowering spike in a season when other flowers have finished blooming. Visiting this colony several times a year for the fifth year, we should have a reasonable search image, yet have not found additional colonies.

If the main contributor to its uncommonness is barrenness, then perception only plays a minor role in its uncommonness.

Habitat

Elsewhere in its range it seems to thrive in duff under conifers, seemingly preferring old growth forest to new and *Abies* to *Picea*, requiring shade and moisture with good drainage. Except for the old growth forest we have its habitat requirements, so it should not be surprising that as long as conditions are stable, it thrives in any suitable location where it has set root. The number of rosettes is increasing in the observed colony and before they died out near Serpentine Lake, that colony was spreading over a wider area, according to the orchidologist P.M. Brown (pers. comm.).

Habitat here, however, may not be able to supply the requirements for successful pollination. *G. oblongifolia* emits a fragrance and produces nectar to attract pollinators, but because of the narrow petal mouth, access is limited to those with a long tongue. The main known pollinator of *G. oblongifolia* is the bumblebee. At least four species have been identified as pollinators for *G. oblongifolia* (Kallunki, 1981); at least two of these are native to the Island, one, *Bombus vagans*, being our most common species. If tongue length is the criterion, several others of our approximately 10 *Bombus* species could also be pollinators, as could several moths. However, even if our habitat has the pollinator, it may lack the required pollen: uncommonness is self-perpetuating if the closest other plant or colony is farther than a pollinator is likely to travel. Bumblebees visit flowers on spikes from below upwards. With a host of spikes of flowers at different stages, pollination can occur if a bumblebee leaves the younger, pollen-containing top flowers of one spike and then visits the older female flowers at the bottom of another spike. However, if there is only one spike, or two at the same stage, this may not be possible.

The habitat in Newfoundland and Labrador also contains potential enemies to fruiting, such as slugs. The injury to spikes is compatible with slug damage, an opinion shared by the limnologist John Maunder (pers. comm.). Parenthetically, it is interesting to note the relative resistance to slug damage of the evergreen leaves, suggesting they may contain a repellent or antifeedant not found in the more ephemeral spike tissue. Moose, fire pathogens, fire and foresters are among the indirect enemies to this

orchid found in its Newfoundland habitat.

Thus, habitat is a major potential contributor to the relative barrenness of this wildflower and through that, to its uncommonness.

Climate

Barrenness is a recognized characteristic of plants at the edge of their climatic range. Our daylight, temperature and rainfall seem to be well within the extremes noted in the distribution of *G. oblongifolia* (Natural Resources Canada, 2007), but month-to-month comparison does not take into account change in blooming times. As we move east across the continent, the flowering time of *G. oblongifolia* shifts further toward the end of the season (Reeves, 2006). Average daylight and temperature are higher in July in Alaska, than in August on the west coast of Newfoundland; in addition, rainfall here in August is more than double that in Alaska in July, meaning more cloudy skies and even less available sunlight here.

When *G. oblongifolia* blooms here, other understory wildflowers have finished blooming. Therefore, it is possible that potential pollinators may not be as nimble when temperatures drop, their range may be shortened to nearby fields, where flowers still bloom, their activities may be more geared toward the coming winter, with little incentive to explore the deep woods only for the sake of 1-2 very infrequent flower spikes. Even if pollination occurs, blooming later in the east may allow insufficient daylight for the later-forming stigma to mature; if it does mature and is fertilized, the plant may not get sufficient solar energy for seeds to mature before growth stops. Even when seeds were recovered, the capsules have never been plump:

less seeds markedly reduce the chances of any progressing to productive adulthood.

Thus, our climate, although adequate for the requirements of *G. oblongifolia* on the average, may impinge on pollination, fruiting and germination because of the wildflower's later blooming time here. Therefore, climate is potentially a significant factor in keeping this orchid barren most of the time, and through that contributes to its uncommonness.

Introductions

G. oblongifolia is a western plant with much smaller disjunct eastern populations in previously glaciated areas (Kallunki, 2002)—entirely compatible with a native Newfoundland and Labrador population. Both its known growth sites have been logged in the past, making it theoretically possible that the plant has been introduced, possibly by seed contamination of logging equipment. However, logging operations in these areas ended so long ago that the distinction between native and introduced species may seem moot.

It may seem that the question of introduction has no bearing on the uncommonness of this plant. Data of its reappearance after fire or clear cutting, however, suggest that *G. oblongifolia* is a repeatedly introduced species. Maximal dormancy for most orchids is three years (Tamm, 1991). Reappearance of a plant after 35 to over 200 years following fire, clearcutting or other similar damage, suggests that the entire local population was eradicated and new plants originate from propagules introduced from remote sites. On an island where a species seldom, if ever, fruits, it is highly likely that most, if not all, new

occurrences of that species are the result of repeated introductions. This is certainly possible for this species with its dust-like seeds, made for long distance dispersal by air currents. *G. oblongifolia* may be native only in the sense that randomly introduced seeds germinate and grow here from time to time. The degree to which such a plant is common or uncommon is a product of the frequency that introduced propagules meet suitable habitat.

Whether the plant is introduced, naturalized or native has no direct bearing on its degree of barrenness. However, if it only grows here as an introduced species, introductions (or their lack) play a major role in its uncommonness.

Summary and conclusions

Our observations suggest that relative barrenness may be the

primary reason *G. oblongifolia* is uncommon in Newfoundland and Labrador. Two of the factors of uncommonness proposed by Mann, habitat and climate, are significant potential contributors to the barrenness of this orchid, and, thus, to its uncommonness. The other two factors do not influence its barrenness, but do contribute to its uncommonness—perception to a minor degree, but introductions potentially playing a major role.

This Humber Valley colony might permit an opportunity for small experiments to answer some of the questions raised by our observations and deductions. Clearly, we need factual knowledge to guide recovery efforts, akin to that seen with the peregrine falcon and that undertaken with the brayas. With *Goodyera oblongifolia*, evidence may suggest “recovery” efforts are not justified. While it is a matter of regret for this

province to lose a single species, perhaps one can accept the loss of a primarily introduced species in Newfoundland and Labrador, knowing that it is such common ground-cover elsewhere that in a British Columbia camp-ground it was impossible to avoid covering it when setting up tents (Judy May, pers. comm.)! If resources are scarce, perhaps they are better directed toward the preservation of species unique to our province or those universally threatened. It may be more important to learn why *G. oblongifolia* is uncommon in our province, than it is to preserve it here.

Acknowledgment

We thank Henry Mann for reviewing the text, adding insights that significantly altered its form, content and length for the better and for examining the overwintered spike from 2008.

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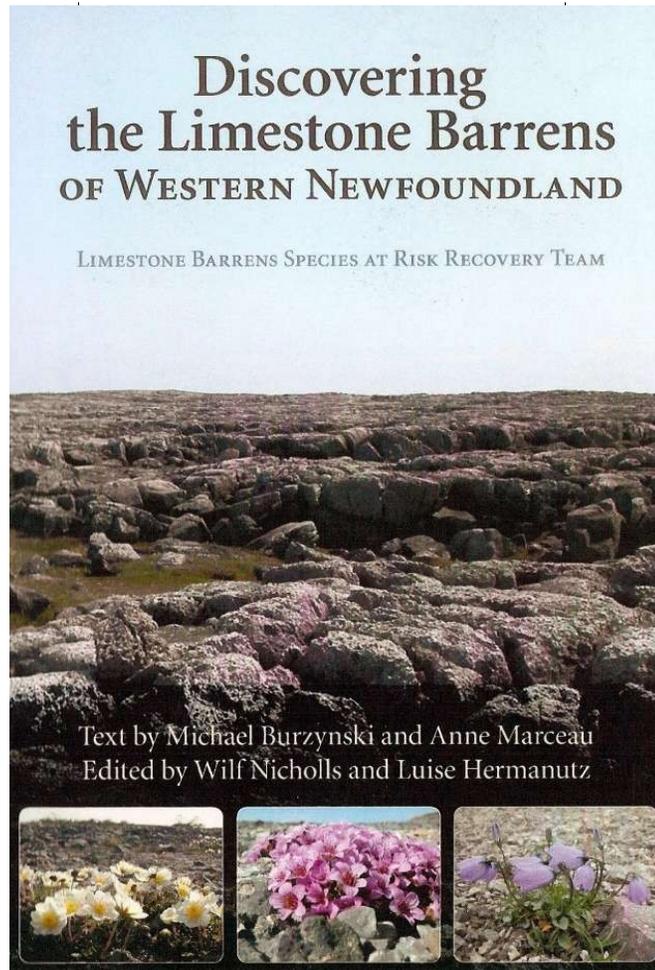
BOOK REVIEWS

Discovering the Limestone Barrens of Western Newfoundland.**Limestone Barrens Species at Risk Recovery Team****Text by: Michael Burzynski and Anne Marceau****Edited by: Wilf Nicholls and Luise Hermanutz**

Reviewed by: Carmel Conway

I love this little guide! Now there are many reasons to be impressed, but heading my list is its size. Most times when I head out to do some serious botanizing, my knapsack is weighed down with several field guides. Lately, however, I have been attempting to lighten my load by keeping those weighty guides to a minimum. So, it was an absolute delight to find this very practical pocket-size, spiral bound, lightweight field guide.

The authors begin by explaining the remarkable formation of our limestone barrens from their birth some 500 million years ago in what was then the edge of a tropical ocean. We learn the barrens were filled with both plants and animals and today all that remains of this once bounteous life are the fossils. In very simple geological jargon we discover what happens to limestone under the duress of harsh climate. And while our Northern Peninsula terrain often appears incredibly inhospitable, it is actually full of life, where the rarest of plants thrive. The guide contains interesting pictures of frost boils, stone rings, stone stripes including the unique thrombolite formations in Flower's Cove. I couldn't help but think this guide would make an excellent addition to our high-school curriculum.



Text by Michael Burzynski and Anne Marceau
 Edited by Wilf Nicholls and Luise Hermanutz

The key begins with identification of the three 'stars' of the rare plant species- Fernald's braya and barrens willow, now classified as endangered and Long's braya classified as threatened. Found nowhere else these three plants are now protected by law. Their importance was recognized by world renown botanist Merritt Lyndon Fernald as early as 1920. Fascinated by Newfoundland's vast collection of rare plants Fernald travelled to Newfoundland on five

occasions to record and collect species and Fernald's braya was named in his honour.

The remaining rare shrubs and plants are categorized by colour, and each plant is given a colour image with physical description, flowering time and additional botanical tidbit. For anyone who has travelled the Northern Peninsula in search of these plants it was almost impossible to confidently identify your finding. It would have required an assortment of sources. Now we have a concise compilation of the entire rare plant collection including a helpful glossary and plant checklist. For wildflower enthusiasts this book cannot but draw you back to the Great Northern one more

time in search of these rare beauties.

My only suggestion is that should this book be reprinted, consideration be given to making the images slightly bigger.

Discovering of the Limestone Barrens of Western Newfoundland is presently available at MUN Botanical Garden Gift Shop for only \$6.99. Members hoping to pick up a copy, keep in mind that there is a scheduled stop during our Avalon Field Trip July 19-July 24th.

Alaska to Newfoundland : Common Wild Edibles

A Review by Henry Mann.

Schofield, Janice J. 1993. Alaska's Wild Plants: A Guide to Alaska's Edible Harvest. Alaska Pocket Guide Series. Alaska Northwest Books, Seattle. \$12.95 U.S. (paperback).

It may seem odd to review a book that was first published 16 years ago, but once or twice a year I take time to just leisurely browse the botany stacks in the Sir Wilfred Grenfell College Library. It is enjoyable to locate new acquisitions and to once more view the range of older and classical sources. Again I just about missed the slim little dark green volume, as I must have in years past, but there it was nestled between Lee Peterson's "A Field Guide to Edible Wild Plants" and Peter Scott's "Edible Fruits and Herbs of Newfoundland". One always wonders whether we educators are sometimes somewhat silly, requiring our students to purchase those monstrous encyclopaedic textbooks which strain muscles and backs, but rarely the intellect, for a twelve week course. So when I see a tiny book like this it immediately peaks my interest. Surely there must be something important, worthwhile and interesting in a book of only 96 small pages, otherwise who would dare to write, compile and publish such a skimpy volume, and who would bother to buy it? Upon riffling through the pages, I knew immediately that this was a gem so it was quickly signed out for a complete read.

| Table 1: Habitats featured in the book and the number of species or species groups detailed in each habitat. | |
|---|---------------------------------|
| Habitats | Number of Species/Groups |
| Sea and Sandy Shores | 14 |
| Gardens, Lawns, Disturbed Soils | 11 |
| Forests and Open Woods | 12 |
| Moist Places | 7 |
| Tundra and Dry Places | 5 |
| Grassy Meadows, Forest Openings | 15 |
| Marshes, Ponds, Wetlands | 8 |

The book is only about 20 cm by 11 cm and 0.5 cm thick. It features 72 edible "plants" or plant groups arranged under seven habitats (Table 1). A full page is devoted to each species or to a group when all members of a plant group are edible (e.g. *Trifolium* clovers, blueberries, currants, strawberries, etc.). Each page

features a colour photograph, a brief description, common and scientific names, distribution range, harvesting directions, food use, medicinal use, other comments and any necessary cautions about mis-identifications, over-use, allergies, etc. Photographs tend to be quite good for their size and collection/food preparation instructions adequate. Two sections at the end of the book are especially important and useful. The first features a listing with brief descriptions and a photograph each of seven poisonous plants that collectors should be able to recognize in the field. The other is a selection of interesting recipes using the wild species from the book including salads, soups, snacks, appetizers, main meals, breads, butters and desserts. I definitely will try some of these! Now, you may wonder how relevant a book about Alaska's wild plants will be in Newfoundland and Labrador. It may be surprising to know that of the 72 species or species groups featured in this book, 62 (86%) also occur commonly in our province. This little book reminds us that we are part of that great "Boreal Forest Zone" which extends across the northern part of this continent and Europe/Asia as well, and which transitions into the arctic zone. Not only are flowering plants included, but also ferns and their relatives (e.g. Ostrich Fern, Field Horsetail), fungi (puffballs), and marine algae (*Fucus*, *Alaria*, *Ulva*, *Palmaria*, *Porphyra*), all of which are common here.

Interestingly, this little book is also a great example of how common names for the same plants may differ in different parts of North America. The accepted scientific name of a plant is, of course, the same everywhere globally, but common names used by local individuals may vary considerably. Sometimes half a dozen or more common names occur throughout the country for the same species. Table 2 compares the common names of selected species from the book with those used in Newfoundland. There is also an example of the problem of totally relying on common names. In Newfoundland and Labrador the name Highbush Cranberry usually refers to *Viburnum opulus*, whereas in Alaska it refers to a different species, *V. edule*, our Squashberry. Even in our province there are two commonly used names for

Vaccinium vitis-idaea, Partridgeberry on the Island and Redberry in Labrador. Elsewhere this species may be known as Lingonberry, Cowberry, Foxberry, Mountain Cranberry, Csejka Berry, Red Whortleberry, Mountain Bilberry and Lowbush Cranberry, probably others as well. Plants that have a large geographic distribution and a history of usage by humans generally have a greater variety of common names.

If you are interested in harvesting wild plants for food and enjoyment, I believe you will find this little volume a valuable addition to your bookshelf. It is still in print

{Can\$11.33 on Amazon.ca – Ed.} and available or can be requested and loaned through most libraries. Janice Schofield certainly has something to say and she says it well and succinctly. (She also has published a larger more comprehensive guide “Discovering Wild Plants: Alaska, Western Canada, the Northwest”, Alaska Northwest Books, 1989).

I can't wait to try some of the recipes like “Pre-Dinner Puffballs”, “Gagne’s Grog”, “Spanakopita”, “Lingonberry Eggrolls”, or even “Slothhopper’s Smoothies”!

Happy Botanizing!

| Table 2: Some Newfoundland and Alaska common names for the same plant species. | | |
|---|-----------------------|---------------------------|
| Scientific Name | NL Common Name | Alaska Common Name |
| Honkenya peploides | Seabeach Sandwort | Beach Greens |
| Plantago maritima | Seaside Plantain | Goosetongue |
| Porphyra spp. | Laver | Nori |
| Viburnum edule | Squashberry | Highbush Cranberry |
| Rubus arcticus | Plumboy | Nagoonberry |
| Rubus chamaemorus | Bakeapple | Cloudberry |
| Vaccinium vitis-idaea | Partridgeberry | Lingonberry |
| Amelanchier spp. | Chuckleyppear | Serviceberry |
| Vaccinium oxycoccus | Marshberry | Bog Cranberry |

NOTICE: The Third Annual Wildflower Society Photo Contest - 2009

This year, the Photo Competition will be run in conjunction with our Christmas Slide Show, as was done for our First Annual Photo Competition in 2007.

Entrants should be prepared to submit their photos by November 4, 2009.

The contest rules will be a little different, again, this year.

1. Five categories:

- a) plant portraits - flowers (including grass, sedge, rush, and conifer flowers),
- b) plant portraits – other features (seeds, berries, old cones, buds, leaves, bark, ferns, horsetails, quillworts, plant parasites and diseases; wide discretion),
- c) plant-animal interactions (NOT including people, this year!),

- d) plant close-ups (original subject area should have been no larger than a postage stamp),
 - e) artistic/abstract compositions (the subject matter should be recognizable; no strange manipulations please).
2. A maximum of 5 entries per person, with no more than two entries in any one category.
 3. In an effort to keep the subject focused on vascular plants, NO images of mushrooms, lichens, seaweeds, etc, will be accepted this year.
 4. All plants photographed must be “native” species, or naturally-growing introductions - NOT cultivated exotics, or horticultural varieties.
 5. No geographic restrictions, but photos taken in Newfoundland are encouraged.
 6. No date restrictions.

7. All entries must be digital (scans of transparencies will be accepted, although, because they are “copies” of originals, they tend to be less sharp and crisp).
8. Photos should not have been submitted to the previous annual photo contest, or to any previous Christmas Slide Shows.
9. Photos should be submitted in 1024 x 768 .jpg format, if at all possible [any larger images submitted will be reduced to 1024 x 768 (or close to it) by the contest compiler (for on-screen projection, this will not reduce the apparent resolution); smaller images will be accepted, but image resolution will necessarily suffer because of the nature of the medium (that said, some of last year’s winners WERE smaller images!)].
10. Entrants should clearly state which category each submitted photo is meant to be in.

The method of submitting photos is very important. Several points should be considered:

1. the preferable photo submission method is via CD

or DVD, using “snail mail” (ie. Canada Post), or direct hand delivery;

2. submissions via e-mail are still OK, but remember to keep the total file size of any e-mail, including attached photos, to below 5 megabytes (so as not to overload e-mail accounts); this may require the sending of more than one e-mail;
3. always request a “confirmation of receipt” from the contest compiler.

The contest compiler will do his best to help submitters out on technical matters, on an individual basis.

Remember that this contest is all about getting out, and seeing new things, and having a good time. Hopefully, we will have a great number of entrants, and many wonderful results.

GOOD LUCK AND GOOD SHOOTING!

Contest Compiler:

John Maunder, P. O. Box 250, Pouch Cove, NL
A0A 3L0 jem@nl.rogers.com

NOTICE: The Annual Christmas Slide Show – 2009

Plant-Animal Interactions - 2nd - Judith Blakely



Our regular Christmas Slide Show will go ahead, as usual, at our December meeting.

This slide show is our yearly opportunity to come together, have a chat, and share our recent botanical experiences, through the medium of photography.

The slide show is not a contest, and the rules for submission are pretty relaxed.

Nonetheless, the images submitted, and the stories told about them, are always pretty amazing!

So, while “visions of prize-winning images” dance in your heads this summer, don’t forget about the Christmas Slide Show. Keep the interesting images coming!

Entrants should be prepared to submit their Christmas Slide Show photos by November 4, 2009.

Slide Show Compiler:

John Maunder, P. O. Box 250, Pouch Cove, NL A0A
3L0 jem@nl.rogers.com

The winners of the 2008-2009 Photo Competition:

Plant Portraits - Flowers

- First Place: John Bridson, Judith Blakeley
- Second Place: John Bridson
- Third Place: Judith Blakeley, Heather Saunders, Gene Herzberg

Plant Portraits - Other Features

- First Place: Gene Herzberg, Mary Bridson
- Second Place: Heather Saunders, John Bridson,

Judith Blakeley

- Third Place: Heather Saunders, Pat Hill

Plant-Animal Interaction

- First Place: Judith Blakeley
- Second Place: Gene Herzberg, Judith Blakeley, John Maunder .
- Third Place: Gene Herzberg, Gene Herzberg, Heather Saunders, Mary Bridson, Karen Herzberg.

Plant Portraits other – 3rd – Pat Hill



Sarracenia purpurea and other bog plants

Plant-Animal Interactions - 3rd - Karen Herzberg



Red Admiral on *Euthalmia graminifolia*.

Shorter Summer field trips.

Out-of-town day trips.

Fuller details of these trips, meeting times & places, leaders etc. will be circulated closer to the events.

Regatta day (August 5th, or whenever it is.) Bell Island – followed by fish and chips at at “Dick’s Bar” on Bell Island or “By the Beach Restaurant”, St Phillips.

September 7 (pre-potluck walk.) Shea Heights Towers - barrens species especially Empetrum, some interesting clubmosses. Meet on Blackhead Rd at

bottom of the trail up to the top, at 9.30 a.m.

Followed later in the day by the pot luck barbecue at the President’s residence.

September 20 or 27. Bellevue Beach for late seaside plants. All day trip.

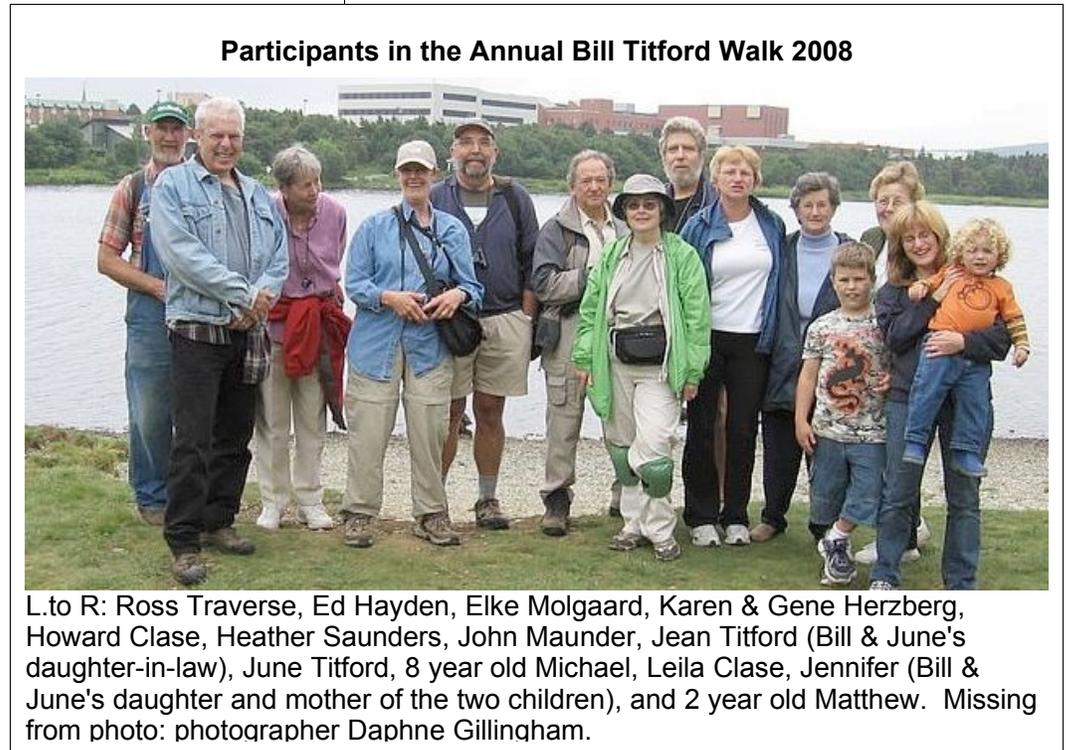
In-town evening walks.

We'll try something new this year: evening walks to make an inventory of plants along various sections of the Grand Concourse trails. This will serve a triple purpose

1. to provide lists of the plants to be found along the trails for the Grand Concourse people;
2. to give experience in identifying common plants at all stages of growth, and learn about plant collecting and pressing;
3. to map the spread of aliens.

I've tried to pick out sites that cover a good range of the trails. People may like to suggest other walks as substitutes, the later ones should be considered suggestions only at this stage. In some cases we could arrange to shuttle a few cars to the end of the walk to avoid having to retrace our steps and cover a longer stretch. Leaders various, but Leila and I expect to attend most of them. More details available nearer the time.

All meetings at 6.30 p.m. This should give us a couple of hours of daylight. **Wednesday** evenings to continue the pattern of our Winter indoor meetings, but at more frequent intervals. If the weather is unsuitable we'll try to re-arrange on a better evening. (When I am there I will take my cell phone so that any latecomers can find us. 727-6410, - N.B. only switched on for special occasions! Otherwise use our home number: see p 16.)



Participants in the Annual Bill Titford Walk 2008
L.to R: Ross Traverse, Ed Hayden, Elke Molgaard, Karen & Gene Herzberg, Howard Clase, Heather Saunders, John Maunder, Jean Titford (Bill & June's daughter-in-law), June Titford, 8 year old Michael, Leila Clase, Jennifer (Bill & June's daughter and mother of the two children), and 2 year old Matthew. Missing from photo: photographer Daphne Gillingham.

June 3rd. Meet at the **Geo Centre** on Signal Hill Road, for the nearby trails. Leader John Maunder.

June 17th. Annual Bill Titford Walk. Meet at the overflow car park at the Botanic Garden to walk down over the side of Nagles Hill to the Fluvarium.

July 1st. Meet at the parking lot at the E. end of Mundy Pond for a walk around the pond.

July 15th. Waterford River in Mt Pearl. Place TBA.

August 19th. Neil's Pond in Paradise.

September 2nd. Stavanger Drive trail. Meet in Kent's parking lot.

September 16th. Rennie's River Trail from Old Stadium to Parkway.

Howard Clase

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(Scientific names without authorities follow: "Annotated Check-list of the Vascular Plants of Newfoundland and Labrador" by Susan J. Meades, Stuart G. Hay, and Luc Brouillet, 2000.)

Wildflower Society of Newfoundland and Labrador
Membership Form

Name _____

Street/PO Box _____

Town/City _____ Province/State _____ Postal Code _____

Country (if not Canada) _____ Telephone (H) _____ (W) _____

Email address _____ Sarracenia by email? Yes ___ no ___

Renewal (\$10) or New Member (see below*)? Amount Enclosed \$ _____ DATE _____

Our subscription year runs from September to August, please renew soon. Annual subscription is \$10.00. Please save the Society postage/copying expenses by agreeing to receive the Sarracenia electronically if possible. Also, you will find the colour images are excellent. For those members who do not receive the Sarracenia electronically but would like a colour copy, the fee is approximately \$4.00-\$4.80 per issue (depending on the size of the Sarracenia).

**For anyone joining for the first time during January to April the fee is \$15.00, which also includes membership for the following September to August.*

Please mail completed form and cheque/money order to:

Membership Secretary
Wildflower Society of Newfoundland and Labrador
c/o Memorial University Botanical Garden
St. John's, NL, Canada, A1C 5S7

A receipt will be sent to you by email, unless you do not have access to email.

Or bring completed form and cheque to next indoor meeting. Karen Herzberg, our Membership Secretary will be available on most of wildflower walks and Summer 2009 Field Trip to accept new and renewing membership monies.