

Sarracenia

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

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Any articles from members would be most welcomed and may be sent via email to todd.boland@warp.nfld.net or via regular mail

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Summer 2005 Field Trip:

Time to think about next year's summer field trip. This year we have planned to revisit the Great Northern Peninsula, but at an earlier date to see some of the early summer-flowering wildflowers. The dates will be **June 26-July 2**, **2005** with highlights being Burnt Island Ecological Reserve, Point Riche Peninsula, Tablelands and Lomond River.

Upcoming Meetings:

November 3/05 - Arctic-alpines of Western Greenland by Todd Boland

December 1/05 - Christmas Social

We are currently working on speakers for the winter months.

Beware the Guelder Rose

by Ken Knowles (kknowles@mun.ca)

Highbush Cranberry (Viburnum trilobum) is an ideal shrub for a Newfoundland garden. In spring it gets showy, flat-topped flowers that actually consist of two kinds of blossoms: inconspicuous, vellow, fertile flowers that are surrounded in an attractive circle by the more conspicuous white, infertile ones. In fall the leaves turn a gorgeous reddish colour and the berries are not only a bright, translucent red, but they make a delicious jelly, "especially tasty with meat" says authority James Soper. Being a native plant, it's well adapted to our peculiar conditions (i.e. horrible climate and acidic soil). The best part for me, as a birder, is that birds love the berries. Cedar and bohemian waxwings, pine grosbeaks, purple finches, robins, and even the lowly starlings are all attracted to the generous drupes of juicy fruits in the fall and early winter.

So I thought it would be a great idea to plant four bushes, purchased at a respected local Garden Centre. I wanted them by my front fence, facing the road so that I could watch the birds from my front window. They would also be visually attractive and provide some privacy from the passers-by on the street. The bushes thrived in the sunny but protected position. More blossoms formed each spring, more berries every fall, and the fall colours of the leaves were even better than we had imagined. One thing was wrong: nothing ate the berries. Every now and then a flock of waxwings would land near the bushes, a bird would try a berry and then the whole flock would fly off, looking, we imagined, like a wine taster who had just been offered a glass of Mogen David. Even in January when the berries were gone from every Dogberry (Sorbus) tree in the

neighbourhood, desperate robins, trying to survive a Newfoundland winter wouldn't touch the berries. Starlings, who will eat almost anything, disdained them.

My wife Kathy, is an excellent cook, and sometimes incorporates natural foods into her recipes. (Have you tried a few sweetgale (Myrica gale) leaves in a turkey stuffing?) Since the birds weren't going to eat the berries, we would take James Soper at his word and turn them (the berries not the birds) into a jelly. To make it more interesting, she decided that we would have a taste comparison. We picked partridgeberries (Vaccinium vitis-idaea), marshberries (V. oxycoccos), and the highbush cranberries. She made a jelly out of each of them to try with our next turkey dinner.

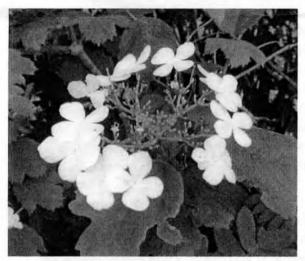
"Have a taste of this," she said when I got home that evening. It looked delicious. I took a big spoon-full, gagged and immediately spat it into the sink. It was horrible. Godawful. Unbelievable. Egregious! (Look that one up.) It was so bitter and acidic that no amount of sugar in the world would have made it palatable. No wonder robins would rather starve than eat the berries. The other two jellies, of course, were wonderful.

I went back to James Soper's excellent book on the *Shrubs of Ontario*. It was then that I saw the "Note" at the bottom of the page. "V. opulus is the European guelder rose, a species often planted as an ornamental..." More to the point it went on to say: "The fruits of V. opulus often remain on the plant all winter, and although they look as if they should be attractive to birds, they are apparently scorned..." Scorned, was putting it mildly.

I then checked the I.D. Sure enough, the plant is almost identical to highbush cranberry but the stipules are bristle-tipped and the glands Vol. 12, No. 1

at the junction of the petiole and blade are concave.

So there you have it. Buyer beware and check your stipules. The bushes are still beautiful, but you have to wonder why they would sell a non-native shrub when the native one is virtually identical and has edible berries. There is apparently some debate amongst botanists as to whether the differences between the two viburnums are great enough to merit simply varietal status or full species status. I know which way the birds would vote on this one, and I'm for the birds!



Viburnum trilobum. Photo by Todd Boland

Ross Traverse's Gardening with Native Plants

by Karen Herzberg

One of the most enjoyable and unexpected evening events of our summer Wildflower Trip was Ross Traverse's talk to the Baie Verte Garden Club on the topic of Gardening with Native Plants. In the Baie Verte Library, President Marie Knox introduced Ross to her members, and she had kindly invited Wildflower Society members to attend as well. Ross had two tables full of specimens of native plants, which he had collected that day, complete with identifying labels. He used these to illustrate as he explained the benefits and means of using native flora. After Ross's presentation, delicious refreshments were served and there was time to socialize.

There are several reasons why native plants are a smart choice for gardening: they are free if you obtain them yourself in the great outdoors (and this from a nursery owner!); they have proven themselves to be hardy here; they need less pesticides; birds and other wildlife like them; they are colorful and beautiful. Small plants actually do better in the long run than bigger ones. A tip would be to identify and mark appropriate plants when they are flowering, but wait until early spring to dig them up, being sure to protect the roots, and transplanting them in your chosen spots.

Shrubs: Consider a hedge of alders (Alnus spp.), viburnum (Viburnum spp.) or chuckley pear (Amelanchier spp.), which have lovely flowers and berries. Other shrubs/ small trees include northern honeysuckle (Lonicera villosa), mountain holly (Nemopanthus mucronata) which has lovely berries in the fall, mountain maple (Acer spicatum) or "sycamore". Mountain ash or dogberry (Sorbus decora, Sorbus americana) is a favorite and can be

pruned to leave as a shrub or left alone to grow as a tree. Shorter varieties include; the squashberry (Viburnum edule), which will grow 2 to 3 feet tall; rhodoras (Rhododendron canadense), which like it damp and have purple flowers in the spring, and sweet gale (Myrica gale), which requires both male and female plants to produce seed. Meadowsweet (Spiraea latifolia) can also be an effective shrub or hedge. Be wary of lambkill (Kalmia angustifolia), which prevents other plants from growing. Consider potentilla (Potentilla fruticosa), yew (Taxus canadensis), Joe Pye weed (Eupatorium maculatum) and lupins (Lupinus polyphyllus), though they spread a good deal.

Trees: Consider white spruce (Picea glauca) or black spruce (P. mariana). White spruce is stronger against the wind. Prune spruce in August and you'll encourage lots of branches. Leave the underbrush in place, don't clean up, but let them be as natural as possible. A fertilizer like 15-5-15 is advised when new growth starts in spring. Don't plant maples trees (Acer spp.) near a driveway. Don't plant a willow (Salix spp.) near a septic system. Willows are easy to grow. Even a branch planted in the ground in the spring will grow. Willows can be pruned back drastically each year. Other trees to try are birch (Betula spp.) and fir (Abies balsamea). Larch (Larix laricina) is a good tree for a windy area. Trembling aspen (Populus tremuloides) has a lovely sound in the wind, although its roots will "sucker". Don't plant pin cherry (*Prunus pensylvanica*) as it is prone to diseases such as black knot and blight. Surprisingly, native pines (Pinus strobus and P. resinosa) actually don't do as well as Austrian pines (P. nigra). When you are planting a new tree of any kind away from its natural environment, take some of the soil and material from under the tree

(such as leaf mold) when you obtain it, and then mix this in the hole during planting. You are trying to make the tree "feel at home." This advice can be generalized to most all of the native plants you cultivate.

If you want a lawn substitute, try partridgeberry (Vaccinium vitis-idaea) and/or blueberry (V. angustifolium) plants, or crowberry (Empetrum spp.). Blueberry should be pruned back every other year. If you have a lot of shade, then you might try bunchberry (Cornus canadensis) plants, and twinflowers (Linnaea borealis) will grow in part shade.

Perennials- If you are looking for garden perennials, you might want to try the following: blue flag irises (*Iris versicolor*) can be transplanted in the spring and do well in wet conditions; beach head iris (*I setosa*) are shorter and tolerate a dryer soil; ferns are suitable for shaded areas but you should get them early in the spring and be sure to have organic matter for their beds. The sensitive fern (*Onoclea sensibilis*) grows best in damp areas. Meadow rue (*Thalictrum polygamum*) also likes it damp; yarrow (*Achillea millefolium*) is not to be feared in gardens or in your lawn; pearly everlasting (*Anaphalis margaritacea*) is a good stabilizer for poor soil.

In conclusion, Ross explained that there are many excellent reasons for gardening with native plants. Even a bog garden could be possible if you create a wet environment by digging out an area and filling it with peat. You should in all cases plan carefully ahead, sometimes months in advance! It is important to put the right plant in the right place. Choose small, young plants because they prosper better than the big ones. Most commercial nurseries carry many kinds of native plants and trees if you prefer not to "dig your own." You need to know the natural conditions in which the plants grow

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best. Why not give some native plants a try next spring? After hearing Ross's well-informed session, most gardeners were eager to take up this new challenge. Thank you to the Baie Verte Garden Club for their hospitality. Thanks to Ross for his suggestions for this report and providing the botanical plant names, and especially for sharing his native plant gardening experience with all of us.

Arctic-alpines of Western Greenland

by Todd Boland

The year was 982. A Norseman, Erik the Red, had just been exiled from Iceland for killing his neighbour's son. A few days after sailing northwest from Iceland, he discovers a new land. This land had tall, imposing, ice-capped mountains and deep sheltered fjords. To taunt his fellow Norsemen back in Iceland, he calls this new land Greenland. Over a thousand years later, Greenland appears essentially unchanged with the impact of civilization being minuscule at best. Today, there are about 55,000 people living in Greenland, a mix of Danish and Inuit.

This past August 10-20, 2004, I was invited on-board an expedition cruise ship which sailed from Western Greenland to my home city of St. John's, Newfoundland. My duties; ship botanist and historian (I'm a jack of all trades!). With my keen interest in the native arctic-alpines of Newfoundland, I was quite familiar with the flora of Greenland, simply due to the many overlaps between the species found there and the Great Northern Peninsula. Historian duties required a little more homework; a general history of Labrador was simple enough but the most interesting historical topic I decided to

present was "The Moravian Missions in Labrador".

On August 10, our charter plane arrived in Kangerlussuaq, the main airport in Greenland. This community is located at the head of a 100 mile long fjord, the Sønder Strømfjord, one of the longest fjords in the world. A large river flows through the town and the surrounding soil was nearly pure sand, resulting in rather dusty, grey surroundings. However, surrounding the town was steep hillsides covered in 2-3 feet tall shrubs, primarily dwarf birch (Betula nana) and northern willow (Salix glauca). Before we boarded the ship, we took a bus ride to the summit of the surrounding hills. Here we were greeted with a lovely arctic valley that overlooked a large lake and the distant ice-cap of Greenland. Feeding along the shores of the lake were a herd of muskox. Here was my first chance to get out and explore the flora. The valley was quite green but diversity was scant. Being late in the season, only a few herbaceous arctic-alpines were still blooming, among them the ubiquitous common harebell (Campanula rotundifolia). A few lingering blossoms of alpine chickweed (Cerastium alpinum) and threetoothed saxifrage (Saxifraga tricuspidata), were the only other flowers I saw. Among the willow and dwarf birch were ripening berries of black crowberry (Empetrum nigrum) and alpine bilberry (Vaccinium uliginosum).



Sønder Strømfjord. Photo by Todd Boland

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That evening we set sail, amazed when at 11:00 pm, there was still plenty of light to take pictures of the looming cliffs of the fjord. The next late afternoon we arrived in Illulisat, a small coastal community (population 4000 people and 6000 dogs!) located about 700 km north of Kangerlussuaq. Here we watched one of the most spectacular glaciers in the world spawning off huge icebergs that would eventually float past St. John's some 3000 km south! Despite the fog and drizzle that evening, the brightly coloured house of the town glowed like a kaleidoscope in the otherwise grey gloom. The blue, green, red and yellow houses, all with clean white trim, had a definite Scandinavian feel.

The next morning, we went ashore to do a hike across a tundra headland. Coastal areas, being relatively milder, resulted in a far greater diversity of plant species. The shrubs seen in Kangerlussuag were still quite common, but were now joined by drifts of narrow-leaved Labrador-tea (Rhododendron palustre), alpine azalea (Loiseleuria procumbens), arctic bell-heather (Cassiope tetragona), purple mountain heather (Phyllodoce caerulea) and tufts of moss campion (Silene acaulis) and white mountain avens (Dryas intergrifolia). Had I been here a month earlier, the hillsides would have been awash in colour. As it was, there were still quite a few lingering arctic plants still flowering, among them tufted saxifrage (Saxifraga caespitosa), three-toothed saxifrage, alpine saxifrage (S. nivalis), threetoothed cinquefoil (Potentilla tridentata), alpine bistort (Polygonum viviparum), arctic catchfly (Silene involucrata), alpine chickweed and long-stalked stitchwort (Stellaria longipes). Overall, I was delighted.

The following morning, August 13, dawned with clear blue skies. Overnight we had sailed back south to the town of Sisimiut, located at the mouth of the Sønder Strømfjord. This was the most picturesque community in our entire trip. The vibrantly coloured homes were perched atop the cliffs and hills that surrounded this very mountainous terrain. We had several hours to wander among the town and the surrounding valleys. This was by far the most lush area I saw in the country. Most of the previous species were seen here along with a multitude of new species. In Sisimiut itself, the roadsides were covered in lacerate dandelion (Taraxacum lacerum). Dandelion are considered a weed to us, but were actually encouraged in gardens throughout Sisimiut. A small stream flowing through the town was surrounded by a 'river' of riverbeauty, (Epilobium latifolium), the National Flower of Greenland. Strangely, the bell heather, mountain heath, alpine azalea and mountain avens were absent from the tundra areas here, replaced instead with arctic willow (Salix arctica), herb-like willow (S. herbacea) and lingonberry (Vaccinium vitis-idaea var. minus).



Eriophorum scheuchzeri. Photo by Todd Boland

Many of the same herbaceous plants existed but there were also a few additional species such as alpine campion (*Lychnis alpina*), arctic poppy (*Papaver radicatum*), large-flowered wintergreen (Pyrola grandiflora) and wooly lousewort (*Pedicularis lanata*). Damp depressions throughout the town and countryside were a sea of wavy silvery-plumes created by drifts of cotton-grass (*Eriophorum scheuchzeri*).

Here and there were small rock faces with natural seepage springs. These areas were home to bulbous saxifrage (Saxifraga cernua), alpine brook saxifrage (S. rivularis), roseroot (Rhodiola rosea) and alpine rockcress (Arabis alpina). It is interesting to note that the bulbous saxifrage, despite producing a relatively large terminal flower per stem, never sets seed. Rather, the plants reproduce by bright red bulbils that form in the upper leaf axils. These cliffs were also home to the only ferns I saw in Greenland; fragile fern (Cystopteris fragilis) and alpine woodsia (Woodsia alpina).

Our last stop in Greenland was Nuuk, the capital, with a population of about 15,000. Again, the town was surrounded by towering mountains, most which were still snow-covered. The mixed population of Inuit and Danes are quite clearly segregated in Nuuk with the Danes living in classical brightly-coloured houses while the Inuit lived mostly in large grey apartment buildings that looked decidedly Russian-influenced. The most memorable part of Nuuk was when we were serenaded by a dozen Inuit who were singing Frere Jaques in Inuktitut (the Inuit native language) behind a 250 year old Catholic Church! Botanizing was minimal in Nuuk, but I managed to wander the coastal headland behind the church, adding to my

plant list alpine lady's-mantle (Alchemilla alpina), fireweed (Epilobium angustifolium) and the tallest herbaceous plant I saw in all of Greenland, angelica (Angelica archangelica), towering to 1.2 m! Iceland poppies (Papaver nudicaule) were blooming in profusion all over the town and hillsides, but these are actually garden escapes (oh yes, I also saw my first 'real' gardens in Nuuk).

On the evening of August 14, we set sail across the Davis Straits, en route to the Labrador coast and finally Newfoundland. Botanizing was left behind and now I switched gears to watching for whales and seabirds. I always had a desire to see Greenland, but never thought I'd ever get the chance to do so. For me, this trip was a chance of a lifetime, giving me a greater appreciation of the challenges faced by plants that survive in arctic-alpine areas. I was greeted by many familiar plants, but saw many new ones. Greenland, at least the coastal areas, is indeed 'green' and a haven for a wonderful assemblage of arctic-alpine plants.



Sisimiut Valley. Photo by Todd Boland

Wildflower Society of Newfoundland & Labrador Membership Form

Name		
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Province/State	Postal Code/Zip	
Email		
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MUN Dept. Address		

\$10.00 (Due in September) \$15 (New member joining between January and April)

Complete form and mail to The Treasurer, Wildflower Society , c/o Botanical Garden, Memorial University, St. John's, NL, A1C 5C7

Goatsbeard (<u>Tragopogon pratensis</u> L.) as an Example of Plant Distribution Documentation

by Henry Mann

Readers of "The Osprey" may wish to revisit an article entitled "Meadow Goat's -beard in Western Newfoundland" (The Osprey 20(2): 73-77, 1989), where I documented the then known occurrences of meadow goatsbeard in Newfoundland and described and illustrated the species. The article was prompted by the discovery of a specimen in the Ivan J. Green Herbarium. now housed at the Sir Wilfred Grenfell College in Corner Brook. The pressed specimen's label data stated, "Along railway embankment near limestone quarry, Steady Brook, Humber Valley District, June 30, 1973". Observations in subsequent years confirmed that this species was not uncommon along the old railbed and in places along the Trans-Canada Highway where the two were in reasonable proximity from Port aux Basques to at least the town of Deer Lake. A personal message from Paul Demalsy of the University of Quebec, Rimouski in 1996 also located it in the Bonne Bay area, "....by the bridge at Shoal Brook". Subsequently it has also been listed for St. John's by Howard and Leila Clase (2000).

In 1999 an article appeared in the Canadian journal of Plant Science as part of "The Biology of Canadian Weeds" series describing the biology and distribution of the three Canadian <u>Tragopogon</u> species (Clements et al. 1999). Although this was a definitive paper on Canadian <u>Tragopogon</u> by weed specialists, not a single record was known to them from Newfoundland. They state, "Both <u>T. dubius</u> and <u>T. pratensis</u> occur in all provinces of Canada, except

Newfoundland", even though its occurrence had been known locally since at least 1973.

It is interesting to note that meadow goatsbeard is not mentioned in "The Atlas" (Rouleau and Lamoureux, 1992), however it is included in the most recent list (Meades, S.J. et al. 2000) where one St. John's report of the similar T. dubius Scop. is also mentioned from Bill and June Titford's book.

On the Wildflower Society field trip this year (July 2004) meadow goatsbeard was seen on Water Street in Baie Verte north of the Coop Store where it inhabited the road embankment down to the seashore. Most of the plants exhibited the huge fluffy"dandelion-like" heads, but a few yellow flowering heads still persisted. This grassy embankment hosted a riot of wildflower colors of the species listed in Table 1. Scattered young shrubs of pincherry (Prunus pensylvanica), mountain alder (Alnus viridis), speckled alder (A. incana), and mountain ash (Sorbus decora) also grew here. In addition, several small apple trees (Malus sp.) were present, no doubt from tossed cores of munching roadside youngsters. Timothy grass (Phleum pratense), couch grass (Elymus repens), and a number of other grasses were common, as well as a rush (Juncus sp.).

Also common was butter-and-eggs (<u>Linaria repens</u>) in the pre-bloom state, while dandelion (<u>Taraxacum officinale</u>), raspberry (<u>Rubus idaeus</u>) and a large dock (<u>Rumex sp.</u>) were post-bloom. Along the marine beach at the base of the roadside embankment grew lambs-quarters (<u>Chenopodium album</u>), hedge bindweed (<u>Calystegia sepium</u>), strand wheat (<u>Leymus mollis</u>) an <u>Atriplex sp.</u>, sea rocket (<u>Cakile edentula</u>), and seabeach sandwort

(<u>Honckenya peploides</u>); only the latter two of these were yet in bloom.

Meadow goatsbeard is a weedy species associated with agriculture and human disturbance so its occurrence along the railbed to the Deer Lake area is not unexpected. Its seeds are windborne and so readily dispersed both by human and natural means. The plant is and will be moving along the railbed and highway network to inhabit many of our human communities. Bonne Bay, Baie Verte and St. John's populations may be the result of separate individual introductions since at present there do not seem to be connecting populations along roads from the Humber Valley corridor. Recently introduced weedy species are often overlooked by those studying our flora, yet these newcomers can provide some interesting insights into the changing nature of our plant communities.

It is always interesting to observe a range extension of a species, but what is more interesting in this case is the practice of plant discovery and documentation. The events surrounding <u>Tragopogon's</u> appearance and spread in Newfoundland provide a good example of the processes and problems associated with developing plant records.

Traditionally when official manuals or lists of species are prepared, these are done by botanical "experts" for the regions to be covered. Sources of information are largely twofold; herbaria and printed records. Initially an attempt is made to survey all herbaria that may have specimens from the region. Doubtful specimens are verified by a specialist for the group. Herbarium specimens are the basis for any such official work as they are tangible proofs of identity, location, habitat, date and

collector. If a verifiable specimen from an area does not exist, then the species does not officially exist in that area even though local amateurs may know it grows there. In a recent work on botanical methods (Vogel, E.F., de, 1987) the author categorically states, "Reports without voucher specimens are nothing more than rumors"! We then can see that one of the problems with the preparation of any major work is that small local herbaria and the local personal collections of amateurs can be easily overlooked in any such endeavors.

This is perhaps the place to bring up a few questions of a controversial nature for some members of the Wildflower Society, namely "to collect or not to collect?". Should we in our yearly major trip or on our smaller local trips collect and press herbarium specimens of those species that are potential range extensions, but cannot be "without-a-doubt" identified in the field. these later to be deposited in a recognized herbarium? Even plants that are very common in an area often cannot be precisely identified to species in the field and require careful examination using authoritative manuals. Which of us can precisely identify by sight every hawkweed, grass, sedge, fern, bladderwort, violet or goldenrod? An "offthe-top" guess is still a guess nor matter how vigorously and convincingly it is pontificated. We do a disservice if we publish guesses that have not been verified because chances are good that often an incorrect species will be designated.

It is acknowledged that the collecting of wildlife, both plant and animal, has sometimes been greatly overdone in the past and sometimes for reasons that are highly questionable. There are also those who believe for personal, moral and ethical reasons that no wildlife should be harmed

intentionally. I too have some sympathy with this view and take no pleasure in collecting just for the sake of collecting. I realize, however, that it is not really the "plants" that I am collecting, but knowledge about those plants. That is what an herbarium is; a collection of knowledge about the plants of an area, some of which will eventually be converted into books, papers and articles, and some of which will be of value for centuries to come both for morphological and molecular reference. Without plant collectors, voucher specimens and herbaria, the botanical shelves of our libraries would be empty! All major works are based on collections of herbarium specimens. Even rare species (especially rare species!) require voucher specimens if a range extension is to be verified.

Even though voucher herbarium specimens are the chief source of information about the flora of an area. written field records, photographs, and the recorded observations of botanists and amateurs are often considered. If necessary such reports can be verified by further field work if precise locations are provided by the observer. There are many species of plants which cannot be mistaken for any other species and those would usually not be questioned as range extensions. For example if one looks at "The Atlas" for the Baie Verte Peninsula, it is apparent that few botanical collections exist even for the most common plants. Species such as cow parsnip (Heracleum maximum), common eyebright (Euphrasia nemorosa), fireweed (Chamerion angustifolium), roundleaf sundew (Drosera rotundifolia), intermediate bladderwort (Utricularia intermedia), and many others are not recorded from the peninsula, yet we all know from our observations that they occur. If, however, our lists from the field trip included a rare or

unusual species, it would have to be verified by a specialist and that would usually mean the collection of a voucher specimen. If that plant was very rare and/or very sparse, a series of photographs may suffice as a voucher record.

Unfortunately, local lists, records of individuals, or newsletters of restricted circulation are often unknown to individuals producing major botanical works about a region. This is one reason why amateurs and local botanical organizations should make themselves known to the professional botanical community. Amateurs often have a lot to offer in terms of local botanical knowledge. Are we getting our newsletter, Sarracenia, into all the major libraries in the province and to key botanical organizations outside? Perhaps to make ourselves more visible as a Society we should be distributing Sarracenia to key individuals and organizations even if they are not members? Or perhaps it is appropriate at this point in time to produce a "special bound issue" of Sarracenia incorporating items from the past as well as new articles. These could be widely distributed to schools, public organizations, and specialists to raise our profile.

Photography is an excellent way for a Society like ours to supplement field records. With the advent of digital technology it has become economical to take large numbers of photos, retaining only the better ones. In order to photographically document a species, usually several shots are necessary; the plant in its surrounding habitat, a closer view of the entire plant, close-up macro exposures of the flower, and sometimes also the leaves. However, documentation by field photography has its limits. Photographs are excellent substitutions and supplements for voucher

specimens, but they cannot fully replace the actual plant. In many cases flowers need to be dissected, the nature of microscopic hairs needs to be determined, or other microscopic or chemical techniques need to be employed to obtain critical information about the species.

John Maunder's "Digital Flora of Newfoundland and Labrador" is, of course, an excellent example of what can be achieved photographically (http://nfmuseum.com/flora.htm). The Society may also wish to more generally archive the flora of an area visited each year on CDs. This could become a valuable botanical resource ten, fifty, one hundred, etc. years from now as our landscapes change and/or become modified by humans. Individuals can also thoroughly document the flora of a favorite local spot or plants in the vicinity of their homes in this manner.

Considering the above ramblings, is there a desire or need in our Society to document our field observations more thoroughly than we are doing at present? Should there be a formal "Society Initiative" at documentation through voucher specimen collection, photography, verified lists, etc.? Or should we just leave this up to individuals who may wish to (or not) become involved in some of these activities? The Society and its trips should be fun and enjoyable, not a chore, but as we all know, what is work for one person is play for another. Perhaps some informal discussions among members about some of these details may be interesting.

A voucher specimen of meadow goatsbeard from Baie Verte has been deposited in the Sir Wilfred Grenfell College Herbarium, although (blush!) in this case it probably was not necessary. As well,

some photographs from the site were also taken. The Baie Verte population appears to be the northern most record of the species on the Island of Newfoundland. To my knowledge, no records are known from Labrador. Figure 1 provides illustrations of meadow goatsbeard drawn by graphic artist Warwick Hewitt.

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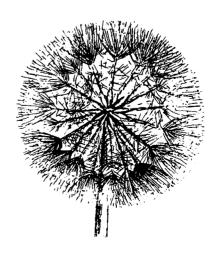


Table 1. Wildflower associates of meadow goatsbeard that were blooming on July 23, 2004 along Water Street, Baie Verte, NL.

Achillea millefolium - yarrow

Anaphalis margaritacea - pearly everlasting

Chamerion angustifolium - fireweed

Cirsium arvense - Canada thistle

Galeopsis tetrahit - hempnettle

Heracleum maximum - cow parsnip

Hieracium aurantiacum - orange hawkweed

Hieracium pilosella - mouse ear hawkweed

Hieracium (floribundum/caespitosum/piloselloides??) - tall king devil

Leontodon autumnalis - fall dandelion

Leucanthemum vulgare - oxeye daisy

Lupinus polyphyllus - lupine

Matricaria discoidea - pineapple weed

Plantago lanceolata - English plantain

Ranunculus acris - common buttercup

Rhinanthus minor - yellow rattle

Rumex acetosella - sheep sorrel

Senecio sp. - ragwort

Stellaria graminea - grassleaf sandwort

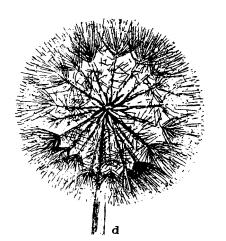
Trifolium hybridum - alsike clover

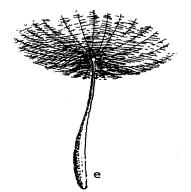
<u>Trifolium pratense</u> - red clover

Trifolium repens - white clover

<u>Urtica dioica</u> - stinging nettle

Vicia cracca - cow vetch





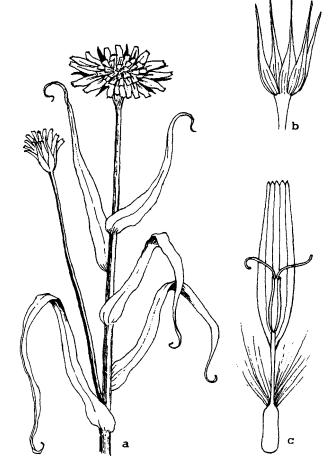


Figure 1: Meadow goatsbeard (<u>Tragopogon pratensis</u> L.)

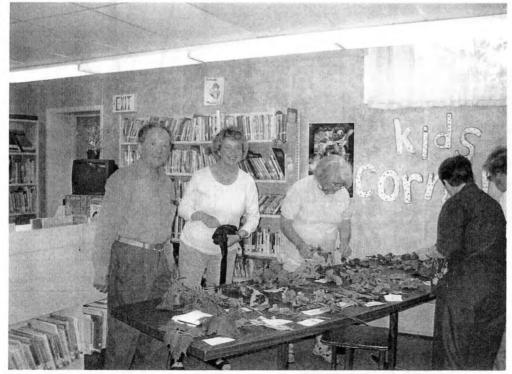
- a. Upper portion of stem, b. involucral bracts, c. individual floret,
- d. "seed" head, e. achene.

Wildflower Society of Newfoundland & Labrador Membership Form

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\$10.00 (Due in September) \$15 (New member joining between January and April)

Complete form and mail to *The Treasurer*, Wildflower Society , c/o Botanical Garden, Memorial University, St. John's, NL, A1C 5C7



Baie Verte July 2004