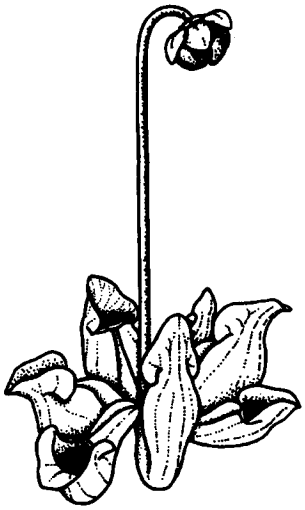

Sarracenia

Volume 15, Number 1 | Winter 2007

Newsletter of the Wildflower Society of Newfoundland and Labrador
C/O Botanical Garden, Memorial University of Newfoundland, St. John's, NL,

2006-07 Executive

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	(abcr hynd@nl.rogers.com)	
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	Karen Herzberg	753-6568
	Ross Traverse	437-5539

Contents:

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

Todd Boland
81 Stamp's Lane
St. John's, NF
A1B 3H7

Upcoming Meetings:

February 7: "The Orchids of NL, Sorting Out the Confusion"
Speaker: Ken Knowles

March 7th: "Boreal Felt Lichen/*Erioderma*" of NL"
Speaker: Eugene Conway

April 4: "Native Plant Research at MUN Botanical Garden"
Speakers: Tim Walsh, Madonna Bishop and Costa Kosimos

May 2: "Summer Wildflowers of Colorado; from the Prairies to the Desert to the Rockies"
Speaker: Todd Boland

All meetings are held at the MUN Botanical Garden, starting at 8 p.m.

President's Message

Happy New Year Wildflower Members! We are a little late getting this issue of Sarracenia off the press and we do apologize. In an attempt to save monies (printing and postage) and cut down on paper waste, we hope to be able to send future Sarracenias via e-mail. If you are presently receiving your messages via e-mail and would prefer an electronic version of Sarracenia, please contact Heather Saunders (secretary) at c.saunders@nl.rogers.com /368-6935 or myself at abcrhynd@nl.rogers.com/722-0121. For any member who has not yet gone electronic and presently receives their notices and Sarracenia by regular mail, this practice will continue.

Because of the great fun and success of last summer's field trip, members are eagerly awaiting our Summer 2007 expedition- botanizing on the west coast of NL. John Maunder has agreed to lead this expedition. Over the next few weeks the executive will be getting together to finish off plans for the trip, and members will be notified regarding place and telephone numbers for accommodation. Mrs. Fenwick (Cape St. George B&B) called to notify us that her Inn is now completely booked by the Wildflower Society. The start time for our trip is one of our earliest (July 6th). It seems either due to climate change or global warming plants are blooming earlier. The west coast should offer us such an immense variety of plants to observe, and we anticipate seeing some dazzling native orchids. So, it is only fitting that we start our Winter Program 2007 with Ken Knowles's presentation on "Orchids of NL sorting out the confusion."

I would like to specially thank Pauline and Tim Howlett of PT Design for creating, often times on short notice, those lovely thank-you gifts we have presented to our speakers. Any member interested in their work can contact Pauline or Tim at 726-3701 or psdesign@hotmail.com.

Finally a thank-you to all the speakers for this season; Ken Knowles, Eugene Conway, Todd Boland and the Research Staff at MUN Botanical Garden.

Carmel Conway.

Cypripedium parviflorum, one of the orchids we should find on this summers field trip.

"Wildflowers of Newfoundland and Labrador" *
Text by Peter Scott. Paintings by Dorothy Black.
Reviewed by Howard Clase

When I heard that Dr. Peter Scott was preparing a book on wildflowers I wondered if, at last, there was going to be a definitive field guide or flora for the plants of this Province, but this book is not intended to fill that gap; it is a large coffee table book, priced to be handled with care and not taken out in the field. It began 25 years ago when Dorothy Black began to put together a collection of paintings of the flowers she saw around her in Central Newfoundland, checking their identities with Dr. Scott. The idea of using her lovely pictures as illustrations for a book failed to interest any publishers at the time and they languished unseen for many years until Dr Scott was able to revive the project with the help of Boulder Publications.

There are 140 well printed, beautiful, artistic paintings annotated with interesting and informative text by Dr. Scott. The paintings are real works of art and not just botanical drawings and, although the emphasis is on plants at the flowering stage, the fruit is often shown as well. Boulder are to be congratulated on the quality of this production. Mrs Black has captured the "jizz" of the plants very well, and, as Dr. Scott says in his preface, there is no doubt as to the species being portrayed. I was particularly taken with the strange little flowers of the Naked Miterwort, *Mitella nuda*, which look more like snowflakes than flowers. I've never seen this woodland plant around St John's and when we've found it on our excursions off the Avalon it has always been too late for the flowers (we saw the leaves on this year's summer field trip near Grand Falls.)

Dr. Scott begins with an introduction to the uniqueness of the Province's flora discussed in terms of its climate and geological history. Then, for each plant illustrated, he discusses its name, gives a fairly detailed description, describes the distribution in this Province and worldwide, and in a final paragraph mentions its uses and edibility. He does use some fairly technical botanical terms that would not be familiar to the general reader like "corolla" and "capitulum", but all is explained in the glossary at the end of the book. The plants are grouped by habitat rather than systematically, which means that closely related plants are often several pages apart – for example the three Lady's Slipper Orchids. A hundred and forty plants may sound a lot, but it is only about 18% of the total of around 800 petallous flowers that are to be found in the Province (the 500 ferns, conifers, sedges, grasses and rushes are not covered at all in this book) and there are no botanical keys, so it is by no means a comprehensive guide to identifying our wild-flowers.

The selection of plants seems somewhat random, no doubt due to the unfinished nature of the original project; most of the plants are quite common, but some, like the Wild Calla, *Calla*

palustris, are rare. Most, but not all, of the common plant groupings are represented, even if not always with the most common species. Many plants with more northerly distributions are omitted from the best known field guides (Peterson's and Newcomb's), which tend to cut off at the US's northern border, so it is pleasing to see a coloured illustration of the flowers of the Northern Comandra, *Geocaulon lividum;* the only one I am aware of in print – another plant we saw several times this summer, but only in fruit. Our two common species of wild Dogberry are notoriously difficult to distinguish, especially since hybrids may also occur, so it is unfortunate that, due to an editing mix up, the illustration clearly shows the tapered leaflets and the red central rachis characteristic of the American Mountain Ash, *Sorbus americana,* while most, but not all, of the text refers to the Showy Mountain Ash, *S. decora*.

It is frequently mentioned that other similar species may be found in Newfoundland, but it would have been a good idea to also indicate where more information could be obtained on these, e.g. in the form of a book-list and possibly a website list. References to John Maunder's digital flora (http://www.digitalnaturalhistory.com/flora.htm) and Sue Meades et al's comprehensive checklist (http://www.digitalnaturalhistory.com/meades.htm) would be particularly useful.

My main quibble with Dr. Scott is in his decision not to use the most up-to-date scientific names. The name revisions he mentions in his preface are being incorporated in the "Flora of North America" project which will eventually reach 30 printed volumes and can be viewed freely on the web (http://hua.hh.harvard.edu/FNA/). It is becoming the botanist's new bible and the revised names will become standard before too long; it is a pity he has chosen for his book to be amongst the last of the old generation of flower books rather that amongst the first of the new in this respect. These are also the names used in Sue Meades' checklist. However, this is unlikely to bother most of his general readers who will probably be happier with the English names, imprecise though they often are.

In summary then, this beautiful coffee table book may seem rather expensive but in view of the quality of the reproductions it is good value, and does a great service by making Mrs. Black's botanical art available to all, but we still need a definitive field guide or flora to the plants of the Province. Sadly, I am afraid that the market may be too small for this without a subsidy, but we can always hope! This book is available now at most local bookstores including the Botanical Garden's Gift Shop.

**Boulder Publications, Portugal Cove – St Phillips, 2006, list price $64.95.*

FALL TREE WALK WITH ROSS TRAVERSE : October 2006

by Carmel Conway
(photos by Todd Boland)

Lead by: Ross Traverse
Participants: Daphne Gillingham, Joyce Cho, Murray Calbo, Tina Rose, Suzanne Sexty, Frank Smith, Marguerite Smith, Heather Saunders, Ed Hayden, and Carmel Conway.

Over the last number of years we have been finishing off our outdoor season with a 'tree walk with Ross', and for many members it has become a favorite. Ross is always determined to put our brains to work in sorting out some unfamiliar tree or shrub. This year Ross suggested we explore one of the oldest of our city's parks, Victoria Park. Victoria Park was officially opened in l896 to commemorate Queen Victoria, and was built on the site of the old St. John's Hospital.

Bill and I purchased our first home on Pleasant Street, and we would often stroll with our young boys over to the park. I always felt that Victoria Park had an old world charm about it. Alex and Robbie especially loved the park in wintertime, as it has great slopes for tobogganing. Daphne recalled memories of the swimming the pool in the north end, which was created by a river which ran through the park. She spoke of how in the l950's a young boy drowned in the pool, and the river was subsequently diverted to an underground culvert. In later years, the Lions Club opened a pool in the south end, and most members had memories of this well-used pool, which was only recently closed down by the city. As evidenced on the day of our tree walk, Victoria Park continues to be a poplar recreational spot, and on this particular Sunday, was abuzz with tree lovers.

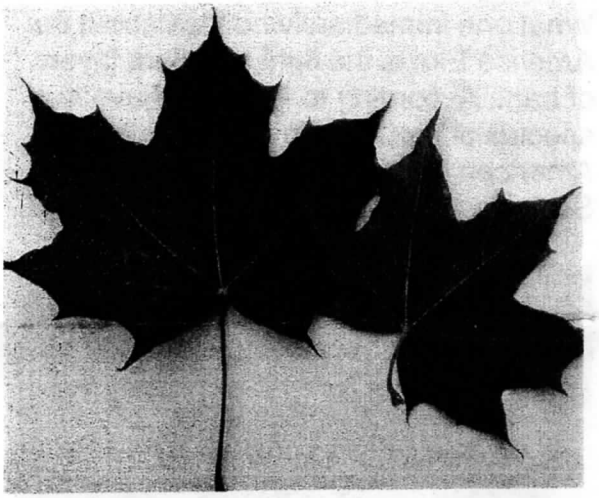
From the left side entrance, by the softball pitch, Ross, with his troupe in tow meandered down the embankment. It wasn't long before we noticed that most of the tree plantings were elm, linden, and maple. Our first stop was at the base of a massive American elm, (*Ulmus americana*). What one immediately notices about the America Elm is the light and dark layers of bark. According to Ross we have two species of elm here in Newfoundland, American elm (*U. americana*) and the Scotch elm (*U. glabra*).

Flowers from the American elm, *Ulmus americana*

Ross and Murray spent at great deal of time haggling over the differences between a Scotch Elm and the Slippery Elm (*U. rubra*). So with their pocket-knives and plenty of twig splitting, and all of us testing the degree of stickiness, our two scientists concluded that the tree at our feet was the Scotch Elm.

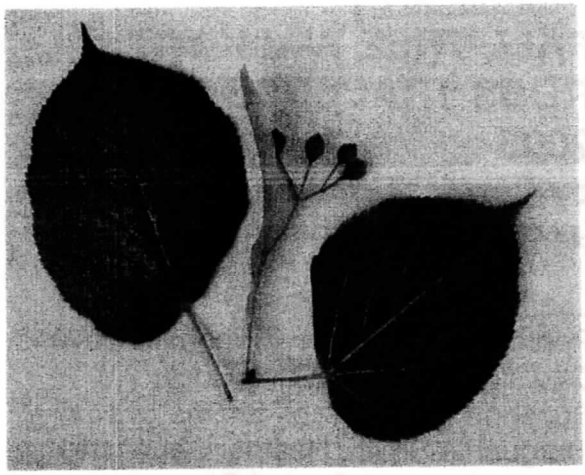
Ross showed us a neat little clue for identifying an elm-there is a slight indentation at the base of the leaf, and for the remainder of the walk this clue seemed to work.

All the maples in the park were just beginning to turn color and according to Ross there are only two species present: the Norway maple (*Acer platanoides*) and sycamore maple (*A. pseudoplatanus*). There were several horse chestnuts trees (*Aesculus hippocastanum*) here as well.



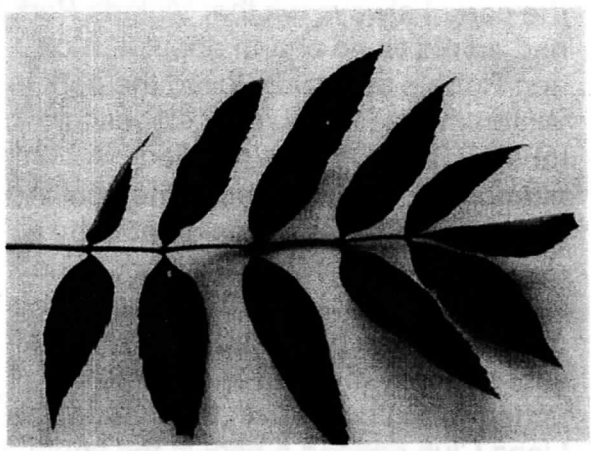
Leaves from Norway maple, *Acer platanoides*

Our next stop was at a linden tree (lime) and the park apparently boasts two species of linden; American linden (*Tilia americana*) and little leaf linden (*T. cordata*). Frank pointed out that the little leaf linden has a heart-shaped leaf which makes it fairly easy to recognize. For me, the lime is truly a majestic tree and has a definite presence in any park. Interestingly, it is considered an excellent source of nectar for beekeepers.



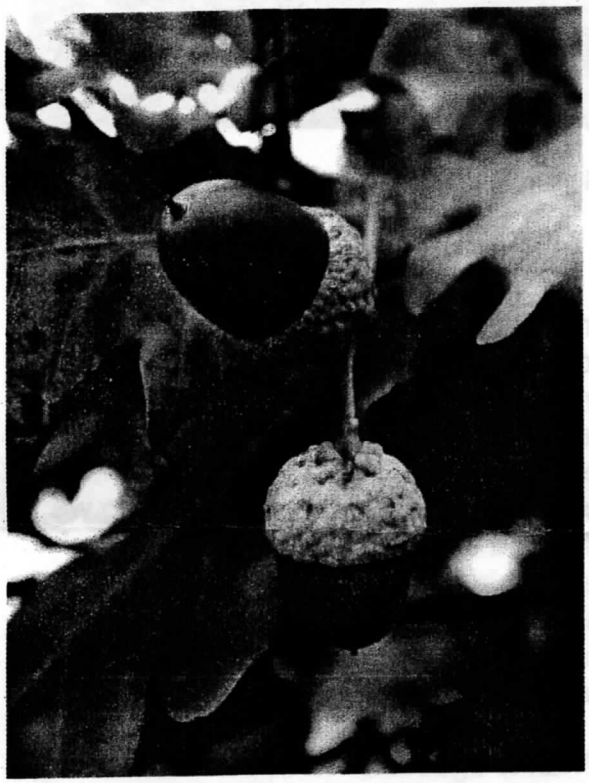
Leaves of little-leaf linden, *Tilia cordata*

Ross then introduced us to a very handsome European ash (*Fraxinus excelsior*). According to Ross, quick recognition is in the leaflets of 7-11, which are finely or sharply toothed and stalkless. The leaf is reminiscent of a dogberry tree (*Sorbus* spp.). We next came up a very sad looking Scotch Pine (*P. sylvestris)*, which we all felt was not doing too well. Surprisingly, Ross informed us that, in fact, this was a very healthy tree and while it had many faded needles which were beginning to fall, there were also plenty of healthy green needles on the outer tips of each branch.



Leaf from European ash, *Fraxinus excelsior*

As we rounded the bottom of the park a young girl ran towards us, wanting us to follow her to her favorite tree in the park. So with a band of young children in the lead, wildflower members trundled up the nearby embankment to inspect a beautiful row of old English oak trees (*Quercus robur*).



Acorns from English oak, *Quercus robur*

As we watched the children collecting acorns on the ground, Heather spotted an impressive old American elm in front of the old change-house. Its massive root system growing out from the concrete foundation was rather unusual. Ross pointed to a large grafted hole midway up its trunk, making a tree window, and while no member was tall enough, or adventuresome enough to climb, enabling them to poke their head through, it surely brought plenty of laughter. The tree had the appearance of an ancient fig tree with its tangled roots, and so, most members felt that this tree truly deserved a picture. Close by we eyed a hardy Norway spruce (*Picea abies*) and felt its soft rubbery needles. This tree, Ross informed us, was being used as an ornamental or windbreak.

Cone from Norway spruce, *Picea abies*

It was at this point that Ross reckoned that we had seen most of the park's species of trees, and suggested that if time permitted, we make a quick stop at the General Protestant Cemetery off Waterford Bridge Road. According to Ross, old cemeteries are renown spots for tree plantings, as when a loved one passes on, the family will often times

plant something special at the gravesite. As we entered the Topsail Road entrance we were struck by the profusion of fruit-bearing snowberry, hawthorn, and rose hips from some well established bushes.

Fruit from one-seed hawthorn, *Crataegus monogyna*

The rose hips were so spectacular, everyone collected some seed. We stopped to admire a beautiful old dogberry tree with crimson-red berries, dangling above an impressive headstone. Daphne and Heather delighted to show us the gravesite of their deceased parents, James and Maude Campbell, which was adorned with a spirea plant with magnificent autumn foliage. Slowly making our way along the narrow pathway we came upon the old crypt, which was surrounded by a beautiful collection of Scotch pine, white cedar and yew. This cemetery is indeed quite beautiful, and has a lovely collection of old maples, elms and ashes and pines.

Hips from the dog rose, *Rosa canina*

With the afternoon closing in, and members slowing making our way back to our cars, Murray spotted an old apple tree laden with fruit. We stopped to admire, feast and then chat. We concluded that Ross was quite right, a cemetery can be lots of fun, and so we decided to return in the spring to see everything again in bloom! What species of apple tree? We were all too hungry and tired to notice! – most likely *Malus sylvestris*.

Thanks again Ross!

NEW BOOK RELEASE

Orchids on the Rock- the Wild Orchids of Newfoundland (2006)
By: Andrus & Maria Voitk

150 color photopraphs
$I2.95, plus tax
Ordered from: Gros Morne Co-Operating Assocation
P.O. Box I30,
Rocky Harbour, NL
AOK 4N0

Two Newfoundland Screwstems (*Bartonia* spp.)

by Henry Mann, Ed Andrews and Claudia Hanel

The Ramea Islands lie approximately 6 km off the south coast of insular Newfoundland directly opposite White Bear Bay, an 80 minute ferry ride from Burgeo. Like the adjacent south coast, the islands are granitic rock with summits scraped by glaciation. Only Ramea Island proper is inhabited with a town of about 800 residents. Scrub woods of mountain alder, spruce, fir, dogberry and various minor shrubs grow in sheltered locations, however, much of the island consists of open coastal peatlands and drier heaths. As would be expected of small offshore islands, the vegetation is similar to that of the adjacent larger land mass, but differences exist as well. Birch is distinctly rare, aspen and native willows apparently absent, and many weeds associated with villages and agriculture are not present. Few species, and only the hardiest and most wind resistant trees and shrubs, are grown horticulturally in the village.

During a visit in the second week of August 2006, two closely related and rarely encountered Newfoundland wildflowers belonging to the Gentian Family were discovered. Often called "screwstems" because of their spirally twisted stems (figure 1c), both Branched Bartonia, *Bartonia paniculata* (Michx.) Muhl., and Yellow Bartonia, *Bartonia virginica* (L.) B.S.P., grew in peaty soil on the margins of intermittent streams intermingled with grasses, sedges and other low herbaceous vegetation. Two common associates among others were white beakrush (*Rhynchospora* alba) and Canada St. John's Wort (*Hypericum* canadense). The two Bartonias were in full bloom, but flowers were tiny, inconspicuous and easily overlooked.

Branched Bartonia has a scattered distribution, mostly coastal, and becomes uncommon in the northern portions of insular Newfoundland. Yellow Bartonia is rare in Newfoundland, first collected by Claudia Hanel near Burgeo in 2000 and subsequently collected again in the Codroy Valley near Doyles. This Ramea collection is only the third known record for the province, although the two species are also recorded from the French islands of St. Pierre and Miquelon. Both screwstems are coastal plain species of eastern North America reaching their northern limits on the Island of Newfoundland. They are found growing together over much of their range and sometimes intermediates occur suggesting that occasional hybridization may take place. They are annuals and often considered saprophytes, obtaining much of their nutrients from decaying organic material in association with soil fungi. It has also been suggested that they may be hemiparasites on the roots of other species. From the available literature it is not clear to us which of the above conditions actually occur, although it appears from the tiny reduced leaves and the low levels of green chlorophyll, that the plants cannot totally nourish themselves through photosynthesis.

The rare Yellow Bartonia (*B. virginia)* grew up to 15 centimeters high in Ramea although further south in its range it may reach to 40 or 45 cm. Stems are upright, yellowish, only about 1 mm in diameter, ridged and spirally twisted. Stems of Branded Bartonia are more purplish. Branching occurs in the upper part of the stem. The lower stem is unbranched and bears tiny scale-like leaves which are more

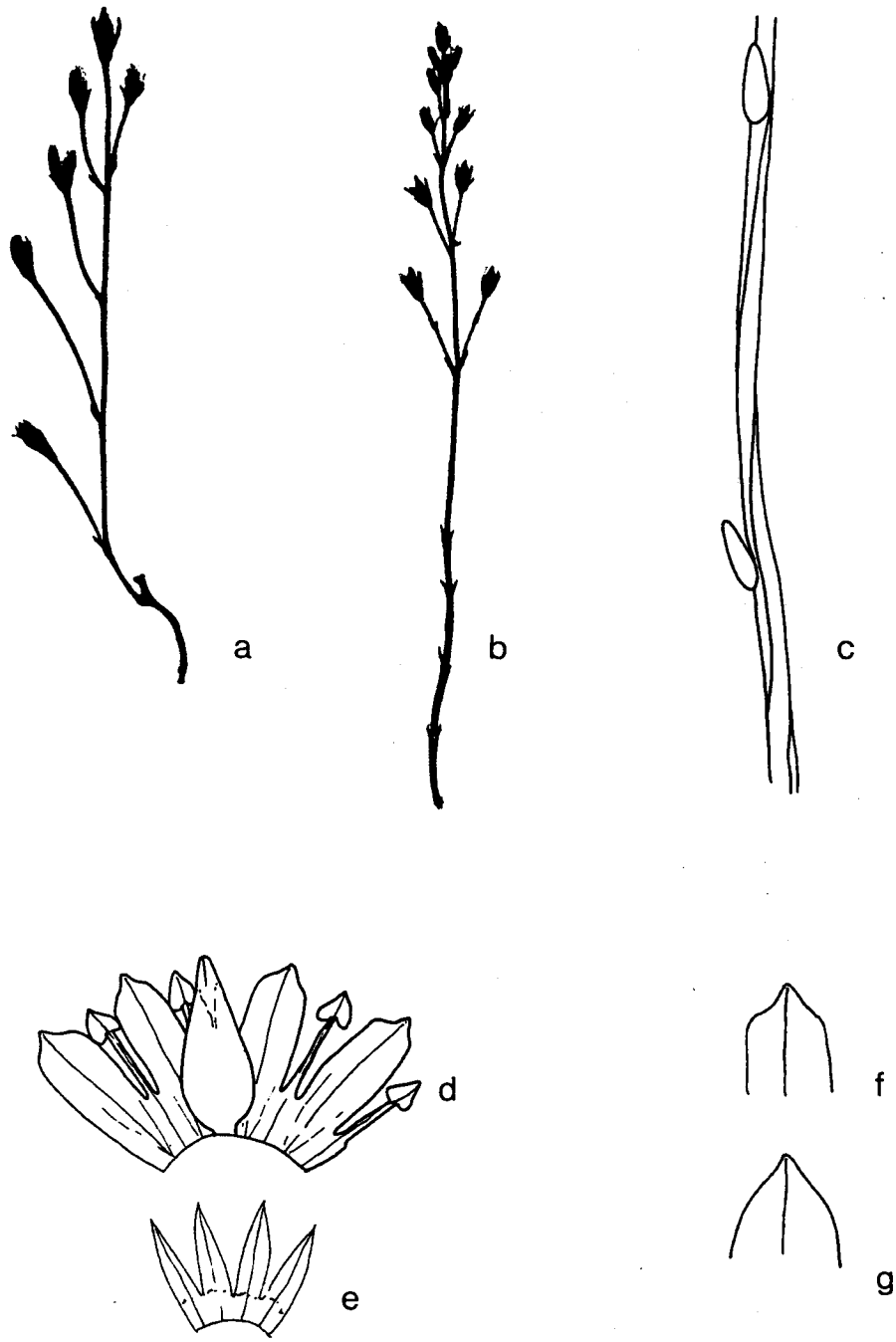


Figure 1. a. *Bartonia paniculata.* b. *Bartonia virginica. (a and b actual size, scanned and photocopied from pressed specimen).* c. enlargd stem of *B. paniculata* to show twisted (screwstem) structure with scale-like leaves. d. flower of *B. virginica* with corolla slit open and unrolled to show 4 petals united at the base alternating with 4 stamens and with a large central pistil. e. calyx tube slit open and unrolled. (d and e are redrawn from Gillett 1963). f. typical petal tip of *B. virginica.* g. typical petal tip of *B. paniculata.*

or less oppositely arranged as compared to those of Branched Bartonia which are alternate. Likewise the upper branching of Yellow Bartonia is mostly opposite and that of Branched Bartonia alternate, the latter species often also branching from the lower portions of the stem (Figure 1, a, b). Ramea *B. paniculata* only grew to 11 centimeters in height.

Flowers of Yellow Bartonia were only about 3 - 4 mm long while those of Branched Bartonia measured 4 - 6 mm in length. The four petals are united below into a tube and they alternate with the four stamens (Figure 1, d, e). The corolla appears not to expand much and forms a close covering over the large central pistil. Petals of Yellow Bartonia are greenish-yellow while those of Branched Bartonia are more whitish or purplish. Petal tips of the two species also differ somewhat as indicated in the illustration of Figure 1, f, g. To clearly examine the structure of *Bartonia* flowers a handlens or stereoscope is required.

The island of Newfoundland harbors a number of species whose distributions range far to the south in continental eastern North America and whose insular ranges are more or less restricted to the southern parts of the Island. These are often termed "coastal plain" species and include the two Bartonias, and other species such as the curly grass fern (*Schizaea pusilla),* northern yellow-eyed grass *(Xyris montana*), white fringed orchid (*Platanthera blephariglottis*), dwarf huckleberry (*Gaylussacia dumosa*) and many others. It has been suggested that their distributions are largely due to their sensitivity to low winter temperatures, which are somewhat moderated in the southern parts of the Island. Interestingly, the Island is also the southern limit of a good number of arctic species. Although insular Newfoundland has fewer species than the adjacent mainland, due to location, climate and geology, its mix of species is unique, offering novel experiences of discovery for the botanical naturalist. Where else can one find the south and the north so closely intertwined botanically along with the more common species of the boreal forest region?

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or bring to our next meeting.....