



# Sarracenia

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c/o Botanical Garden, Memorial University, St John's, NF, A1C 5S7

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## Field Trips 2002

### Monthly Sunday Walks.

June 2, July 7, August 4, September ? (TBA)

Waterford Valley Trail. Meet at 2.00 p.m. at a place yet to be determined, 2 hours.

### Joint "Hike" with East Coast trail Association.

Saturday June 22 at 10.30 a.m. 3 hours. Meeting place:- End of Gallows Cove Rd., Torbay (north of the supermarket). Howard and Leila will be leading an interpretative Hike for ECTA, they'd appreciate as much help from WFS members as possible. Bring a picnic lunch. This is the trail the WFS visited a few years ago.

### Summer trip: Burgeo and Bay of Islands Areas.

July 14 - 20. See p6 for more details.

### Regatta Day:

Wednesday, August 7 ? Suggestions welcome, where should we go this year?

### September trip to Harbour Grace – Carbonear Area.

Including a visit to the Bristol's Hope lagoon where *Baldellia ranunculoides* was discovered last year. Special interest – aquatic plants. Leader John Maunder (we hope).

Details will be filled in on the web site [www.ucl.ca/~hclase/wf/](http://www.ucl.ca/~hclase/wf/) as they are known, or phone Howard or Leila at 753-6415.

## **Hieracium flagellare and Epilobium montanum: two common, but overlooked, Avalon plants.**

By Howard Clase

### **Introduction.**

While both of the title plants, the Whiplash Hawkweed (*H. flagellare*) and the Broad-leaved Willowherb (*E. montanum*), are quite common in the St John's area, neither appears in any publication as even occurring here, except for the recent annotation of an old specimen of *E. ciliatum* as *E. montanum* reported in the new checklist (Meades et al. 2000). Both had been puzzling me ever since we started practising our botany on the weeds in our area, but it was only in 2000 that I finally worked them out.

How is it that two quite common species have not been noticed before? Probably because they both grow alongside other very similar species, belong to "difficult" genera, and are alien weeds that no self respecting professional botanist would bother about!

### **Hieracium flagellare.**

In July and August roadside verges and unpoisoned lawns around St John's and many other areas of the province are decorated with yellow and orange dandelion-like flowers; as most readers will know these are properly known as hawkweeds and differ from dandelions by having thinnish solid stems rather than wide hollow ones. There are about 10 species of hawkweeds listed in the

Newfoundland checklist and all but two are introduced from Europe. They are easily divided into two groups: the true hawkweeds, which have broad toothed leaves in a basal rosette and at least a few stem leaves, and the mouse-ears or pilosellas with basal rosettes consisting of long, narrow, untoothed, lance-shaped leaves, and leafless flower stems. The pilosellas also often have runners and build up into quite large, grass-excluding patches. In North America they are all placed in the genus *Hieracium*, but the current fashion in Europe is to place the second group into their own genus, *Pilosella*, and it is into this second group that our mystery plant falls.

If you stop and look carefully at those yellow and orange roadside verges, for example, around the Confederation Building and Fluvarium in St John's, you will see that there are actually two shades of yellow: there are lemon yellow flowers and butter yellow flowers as well as the orange one.. If you look even more carefully you will find that the pale yellow flower-heads always occur singly, while the brighter ones often have two and sometimes three flower-heads per stem, not bunched together at the top of the stem, but on side stems that branch off some way down, often near the middle. The pale yellow one is the Mouse-eared Hawkweed, *Hieracium pilosella*, which is on the checklist, and the second keys out in both Fernald (1950) and Stace (1997) to *H. flagellare*, the Whiplash Hawkweed, which is not. Oddly, very few floras mention this difference in flower colour; I think that this is because formal descriptions are based on dried herbarium specimens and the difference is lost on drying. Although, once you are aware of it, it is clear enough to be seen from a speeding car when there are fairly large patches of flowers. A further distinction that does persist in dried specimens is that the typical *H. pilosella* has whitish undersides to the leaves, due to a covering of fine hairs which give even the upper surfaces a greyish look; the leaves of *H.*

*flagellare*, while still hairy, are noticeably greener, but this is most useful when you have the two side by side or are very familiar with them. Both species have flowering stems about 15 - 20 cm high and long, leafy runners that enable them to build up colonies. The flowering seasons of the two species are also slightly different; the peak flowering of *H. flagellare* (usually in early July around St John's) is a couple of weeks earlier than *H. pilosella*, although they do overlap and it's always possible to find odd flowers right through the summer, especially where they have been mowed.

Although I have only collected specimens in the St John's area, *H. flagellare* seems to be widely distributed on the Island; we noticed this species as far up the Northern Peninsula as Roddickton on our 2000 field trip, farther up than we saw *H. pilosella*.

The full taxonomic names for the two species with the synonyms in use in Europe are: *Hieracium pilosella* L. (syn. *Pilosella officinarum* F.W. Schultz & Sch. Bip.) and *H. flagellare* Willd. (syn. *P. flagellaris* (Willd.) P.D. Sell & C. West). But when I tried to find an English name for *H. flagellare* I found there was a problem: although it is a widespread alien in North America there is no commonly accepted name here. Stace calls it the Shetland Hawkweed because that is the only place where it is found in Britain, but that is hardly appropriate here. My immediate solution was to translate the Latin, "flagellare" is from a word meaning whiplash. When later I checked on the internet I found that a couple of other people had done the same, while others called both species "Mouse-ear" without distinguishing them. So I'm sticking to Whiplash Hawkweed for now.

The orange flowered species that often occurs with these is, of course, *H. aurantiacum* L. (syn. *P. aurantiaca* (L.) F.W. Schultz & Sch. Bip.), the Orange Hawkweed, also known as Fox and Cubs and Devil's Paintbrush. At about 25-30 cm it is a little taller than the other two and has about ten flower-heads crowded together at the top of each stem. There are several similar species which have yellow rather than orange flowers, and one of these, *H. caespitosum*, is thought to have hybridised with *H. pilosella* to form *H. flagellare* as a fertile hybrid. Since both parent species occur in Newfoundland the hybridisation could have occurred here independently, or the plant could have been introduced from the North American mainland. Interestingly it is one of the few alien members of its genus found here that is not common in Britain.

### **Epilobium montanum.**

Ever since we began practising our botany on the weeds in our garden I had felt sure that there were two species of willowherbs growing there: one growing in open sunny spots and the other, slightly larger plant with larger flowers in more shady locations. However, whenever I tried to key them out in Gray's botany (Fernald 1950) both always came out to *Epilobium ciliatum*, the Northern Willowherb. It wasn't until the summer of 2000 after a fall spent in the English Midlands town of Leamington Spa that the mystery was solved. While I was there I was using the excellent field flora written by Francis Rose (Rose 1981 – which I strongly recommend to anyone visiting that part of the world – and isn't without its uses here in Newfoundland either.) Many of the British willowherbs are different from ours, and when keying them out the first thing you have to look at is the flower, in particular the stigma, since in some species it is

cylindrical like all of the North American natives, but there is another group over there in which it is in the form of a cross. Since stigma shape isn't a useful character for the species covered in his book, the keys in Fernald largely ignore the flowers and concentrate on vegetative characteristics. When the flowers re-appeared in the summer of 2000 I was primed to look at the stigmas and I immediately noticed that the larger of the two species in the garden had four parted stigmas and must be an introduced European species: it keyed out to *Epilobium montanum* L., the Broad-leaved Willowherb. The other keyed out as before to *E. ciliatum* Raf. (which now includes *E. glandulosum* and *E. adenocaulon*) in floras from both sides of the Atlantic. Since it is a widespread introduced weed in Europe, both species are included in Stace. This illustrates one limitation of botanical keys – they only work for species that are known to occur in the area for which they were written.

Once the distinction was clear I had botanists amateur and professional peering at the stigmas of willowherbs in their gardens all over the city and we soon found that if anything *E. montanum* is the more common of the two species. During a trip to the Trinity Pageant we noted that the immigrant has reached there. I would be interested to have reports from any other parts of the province. An old *epilobium* specimen collected by Ernest Rouleau in 1958 has recently been recognised as this species, so it has obviously been around in the area for some time.

These two similar species are both perennial herbs which flower from mid summer on, they have broad, short petiolled, lanceolate leaves and mauve-pink, four-petalled flowers. The best distinction between the species is the stigmas since these are

white, in the centre of the flowers, and quite easy to see, but the flowers of the Broad-leaved are larger (8-10 mm) than those of the Northern Willowherb (3-6mm). Depending on conditions they both can be from 25 – 75 cm high. The leaves of the Broad-leaved Willowherb are not noticeably broader than those of the Northern Willowherb and are much the same shape overall, but the stems are rounder and almost hairless compared to the four ridged, hairy stems of the native species. The situation is complicated by the presence of hybrids. Stace (1997) says that the hybrid between these two species is the most common *epilobium* hybrid in the U.K. and it is not likely to be any different here. He says that in general the hybrids are larger and more branched plants than those of the the parent species with longer flowering periods. The flowers may be unusually large or small and tend to have darker coloured petal tips. While I have noticed some plants that fit this description I haven't made a serious study of it – I'll leave that for someone to write a thesis on.

### References

- Fernald, M.L., 1950**, Gray's Manual of Botany, American Book Co.
- Meades, S.M., Hay, S.G. & Brouillet, L., 2000**, Annotated Checklist of the Vascular Plants of Newfoundland and Labrador, Newfoundland Museum. [www.nfmuseum.com/meades.htm](http://www.nfmuseum.com/meades.htm)
- Rose, F. 1981**, The Wildflower Key (British Isles – N.W. Europe), Warne,
- Stace, C., 1997**, New Flora of the British Isles, 2<sup>nd</sup> Ed., Cambridge University Press.

## Inspirational Ferns

by Frances Theodora Parsons, 1899  
(excerpt contributed by Glenda Quinn)

If you wish to know the ferns you must follow them to Nature's most sacred retreats. In remote, tangled swamps, overhanging the swift, noiseless brook in the heart of the forest, close to the rush of the foaming waterfall, in the depths of some dark ravine, or perhaps high up on mountain-ledges, where the air is purer and the world wider and life more beautiful than we had fancied, these wild, graceful things are most at home.

You will never learn to know the ferns if you expect to make their acquaintance from a carriage, along the highway, or in the interval between two meals. For their sakes you must renounce indolent habits. You must be willing to tramp tirelessly through woods and across the fields, to climb mountains and to scramble down gorges. You must be content with what luncheon you can carry in your pocket. And let me tell you this. When at last you fling yourself upon some bed of springing moss, and add to your sandwich cresses fresh and dripping from the neighboring brook, you will eat your simple meal with a relish that never attends the most elaborate luncheon within four walls. And when later you surrender yourself to the delicious sense of fatigue and drowsy relaxation which steals over you, mind and body, listening half-unconsciously to the plaintive, long-drawn notes of the wood-birds and the sharp "tsing" of the locusts, breathing the mingled fragrance of the mint at your feet and the pines and hemlocks overhead, you will wonder vaguely why on summer days you ever drive along the dusty high-road or eat indoors or do any of the flavorless

conventional things that consume so large a portion of our lives.

## The Rum Affair

by Karl Sabbagh.

(A true story of botanical fraud)

Reviewed by Carmel Conway

While recently spending a hockey weekend in Clarendville with my younger son, I was able to idle some time away and read Karl Sabbagh's "The Rum Affair". What was most enjoyable about this little piece was that I did not need to be a botanist to be quickly drawn into the intrigue of the story.

Set in the 1940's, the tale involves a very eminent botanist, Heslop Harrison of Newcastle University. He had a passion for plants in the Hebrides, in particular the island 'Rhum'. Rhum is one of the islands on the west coast of Scotland; mountainous, and wildly brooding. Harrison proposed a theory that a number of plants and grasses on Rhum were survivors from the last Ice Age, and to collaborate such a theory, he had actually discovered plants on Rhum that had never been recorded there before. As one would expect, the botanical community became highly skeptical. The leading doubter was a Cambridge man, John Raven, a tenacious, quite likeable fellow and amateur botanist. In delving into Raven's records, Kabbagh learns that Raven has actually recorded quite a convincing argument of Harrison's fraud. Raven, being an English gentleman, never pursued the issue publicly nor was mean-spirited enough to embarrass Harrison.

Kabbagh delights the reader with the character of the two rivals, their childhood backgrounds, academic pursuits, their friends and enemies, and sets the stage for a very ripe plot. However, what I most enjoyed about this story was Raven's official investigation on the island in search of these infamous plants and the

challenges he faced there with the two botanical camps at odds.

one. It has the lure of Hebrides wild! A quick read and one that during the winter months, makes one eager to roam our barrens again!

The setting is a wild and adventuresome

## **Wildflower Society Field Trip 2002**

### **July 14 – 20**

### **Tentative Itinerary**

**July 14** Arrive in Burgeo (Gillett's Motel 2 nights, **phone 709-886-1284 to confirm your reservation** if you have not already done so.) - General reconnaissance of Burgeo (any unusual south coast "weeds"?) - evening welcoming gathering.

**July 15** Hikes - flora of the Sandbanks, evening summary gathering of day's observations

**July 16** Travel to Corner Brook, botanizing stops along the way. \*  
Sir Wilfred Grenfell College residence accommodations July 16 – 19. Single study bedrooms in pairs sharing a bathroom, \$25 per night. Booking details will be provided by Howard **to all who have indicated to him** that they are coming.

**July 17** Early morning walk - Corner Brook Stream (birds, flowers, fresh air, and sunshine (hopefully!), but don't forget your umbrellas!), breakfast stop along route. Followed by plants of the Corner Brook area - several unique sites. \*

**July 18** Early morning walk - Chimaphila site, breakfast along walk route. Followed by Blow-Me-Down Brook Trail all day hike (good hiking footwear a must; wet feet a distinct possibility!), if time permits Bottle Cove short side trip. \*

**July 19** Early morning walk – Participark, breakfast - to be determined. Followed by Hughes Brook Trail Hike and botanizing North Shore of Bay of Islands to Cox's Cove. \*  
Evening "sit-down" supper/farewell "banquet" (to be arranged)

**July 20** Individual investigations, dispersal. Overnight at SWGC probably can be arranged.

\* A laboratory with microscopes and equipment will be available at SWGC each evening for individuals who wish to examine some of the day's "finds" in more detail, or who wish to press collections, or chat/complain about the day's events, etc.

Meal Notes: Breakfast stops each day at a different establishment along our early morning walk route while in Corner Brook. Boxed lunches can probably be arranged, or get your own picnic. Evening meals – there is a reasonable selection of restaurants in Corner Brook.