

W I N T E R 2 0 1 9

FIELD BOTANISTS OF ONTARIO *NEWSLETTER*

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President's Message

Your FBO board members are working hard this winter planning another suite of diverse field trips in interesting areas throughout Ontario. We are fortunate to have so many trip leaders volunteer their time and expertise. New leaders are always welcome so please send us suggestions if you think someone will be a good trip leader.

The FBO is a volunteer run organization, from the board members to the trip leaders. However, an additional, and very important, part of the volunteers that make the FBO function are the trip report writers (i.e., you). The backbone of our newsletter is trip reports. In fact, the frequency of the newsletter is based on the number of trip reports we receive. In 2019, a high number of trip reports were written so we were able to produce four newsletters (you are reading the fourth). In the coming year, I encourage you to try your hand at writing a report (we will help with editing and identifications).

The first FBO winter social, Botanists et Ale, will be on February 22, 2020, in Guelph from 5-9 pm. Location TBA. Please RSVP with Will Van Hemessen wdvanhem@gmail.com. We hope to see you there.

Don't forget to renew your membership for 2020. Our new on-line registration makes it easier than ever to renew: <https://www.fieldbotanistsofontario.com/>

Yours in the Outdoors,

Troy

On the cover: Top: Northern Holly Fern (*Polystichum lonchitis*). Photo: Anne Barbour. Middle: Pale-leaved Sunflower (*Helianthus strumosus*). Photo: Mike McMurtry. Bottom: Tony Reznicek in a pothole in Rockwood Conservation Area describing habitat requirements of Green Spleenwort and Maidenhair Spleenwort. Photo: Andrew Dean.

Sidebar artwork: American Sweetflag (*Acorus americanus*)

The suggested standard source for scientific and common names is the Database of Vascular Plants of Canada (VASCAN): (<http://data.canadensys.net/vscan/search>).

Field Botanists of Ontario website: www.trentu.ca/fbo

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Annual memberships are \$20.00 for individuals and \$25.00 for families. Membership forms can be found on the FBO website above.

Field Botanists of Ontario

(FBO) is a non-profit organization founded in 1984 for those interested in botany and conservation in Ontario.

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Editor's Note

Don't go into hibernation just yet, fellow botanists! At least not until you re-live the experiences of our field trips: the pleasantness of good company, (generally) good weather and the uplifting feeling of discovering interesting plants in all sorts of places province wide.

We have several indefatigable trip leaders on whose experience and botanical knowledge we can always count. Take Walter Muma, for example... He led a fantastic trip to his favourite Bruce Peninsula back in May this year, attended by a travelling band of happy botanists; in her report, Anne Barbour superbly reflects the excitements of that day.

Tony Reznicek, another great, travelled to his home province to give his students of the day a first-class field botany education at Rockwood CA, sprinkled with stories and anecdotes to the enjoyment of everyone, stormy weather notwithstanding.

Over to the east, there was another interesting trip this year, to explore the variety of habitats for which the Goodrich-Loomis CA is known for.

The third great, our own Bill McIlveen, continues his diverse botanical suite of articles, this time on yet another potentially harmful plant invader - Wild Chervil.

So, that's it, then. Enjoy the issue. Read it under your Christmas tree.

All the best and see you next year!

Chris Zoladeski

The Bruce awakes in the spring

25 May, 2019

By Anne Barbour

It was evident from the moment we met him that Walter Muma loves the Grey/Bruce area with all of its unique habitats and flora. Walter has lived in the area for 40 years, but only started botanizing about half that time ago when digital cameras made it easy to identify something you didn't recognize at your leisure at home. His proficiency is attested to by his superb photos on his meticulous website <http://www.ontariowildflowers.com/>. He made it clear to us at the beginning that protecting these unusual habitats with their special plants was very important and something we should all be aware of. How could we do our part? By not posting on social media photos of what he was going to show us accompanied by comments about how rare they were. Protection of species-at-risk

takes work, and Walter is doing his part for Grey/Bruce.

The weather report predicted thunderstorms, and of course the skies were overcast and threatening when fourteen people arrived at the first of five stops: Hope Bay Forest. Some rain did fall in the morning, but we were all pleased that the thunderstorms skirted the Bruce Peninsula. Most of the day was "dreak", the one-word description of the majority of the Scottish weather that my husband and I experienced when we travelled there one fall. This did not deter everyone's enthusiasm for spring delights that awaited us on the Bruce, under Walter's engaging leadership.

Hope Bay Forest is a Provincial Nature Reserve with no facilities. Although the trailhead is accessed from the road, the cliff-side of this forest is part of the Bruce Trail system, so hikers in this area will circuit the edge of this beautiful deciduous forest along the edge of the cliff, with a view of Hope Bay. With people coming from many places to enjoy this area, Ontario Parks wisely erected a boot-brushing station to help stop the spread of invasive species such as Garlic Mustard (*Alliaria petiolata*), Common Buckthorn





Walter Muma is pleased with his trip participants. Photo: A. Barbour.

(*Rhamnus cathartica*) and Spotted Knapweed (*Centaurea stoebe ssp. micrantha*). To the credit of this station, those three invasives were not seen on the forest trail.

Since Ontario's weather had been unusually wet and cool, some spring ephemerals like White and Red Trillium (*Trillium grandiflorum* and *T. erectum*), and Canada Violet (*Viola canadensis*) that we expected to be waning were actually at their peak. The leaves of Sharp-lobed Hepatica (*Hepatica acutiloba*) were fully extended, and some flowers were still blooming: a very unexpected sight to see the two together at the same time. Carolina Spring-beauties (*Claytonia caroliniana*) with their wide leaves were also still blooming. Other wildflowers like Canada Mayflower (*Maianthemum canadense*) and Fringed Polygala (*Polygaloides paucifolia*) were "crazy late" to use Walter's unscientific but accurate terminology. Even two Toothworts, Cut-leaved (*Cardamine concatenata*) and Two-leaved (*C. diphylla*) were flowering, lasting this long, no doubt because of the cold weather. I looked but did not see any of the somewhat rare in Ontario, West Virginia White butterflies, that lay their eggs on Toothwort.

Walter flipped over the white face with yellow centre of a Canada Violet to show its diagnostic purple underside. He then explained that violets can be either 'stemmed' or 'stemless'. When the flowers are on a stem with leaves they are considered 'stemmed'; but if the flower has no leaves on its stem, it is considered 'stemless'. This applies not only to violets, but other plants as well, such as the Moccasin-flower, also known as the Stemless Lady's-slipper (*Cypripedium acaule*) and Naked Mitrewort (*Mitella nuda*). (We did not see these two plants;

they are merely illustrations of a weirdly-named plant feature.) Back to the violets; we saw two stemless: the Marsh Blue Violet (*V. cucullata*) and the introduced English Violet (*V. odorata*). Like the Canada Violet, the others we saw were all stemmed: Labrador Violet (*V. labradorica*), Downy Yellow Violet (*V. pubescens*) and Long-spurred Violet (*V. rostrata*).

On the bark of the American Beech (*Fagus grandifolia*), gray circles were prominent. Rivka explained that these were the scale insect that damage the tree by feeding on the bark, which allows a fungus to enter, causing the Beech Bark Disease. Sadly, all of the large beech trees that we saw were infected.

When we saw Blue Cohosh (*Caulophyllum thalictroides*), we discussed how many older field guides only identify *C. thalictroides*, while *C. giganteum* is really more abundant in Ontario. Walter shared an identification tip he

had learned over the years: *C. giganteum* flowers while the leaves are still folded like a gnarled hand, and all of its parts are purple at that time; whereas *C. thalictroides*' flowers are green and are open at the same time that the green leaves are spread out. That was exactly what Dale Leadbeater and I experienced with our cohosh quest in the City of Kawartha Lakes.

After lunch, our group convoyed to several alvar locations, the most recognized being The Bruce Alvar property owned by Ontario Nature. Though dandelion was not unexpected in one of the parking lots, the species Marsh Dandelion (*Taraxacum palustre*) was. Because Common Dandelion (*T. officinale*) was not present, we mentally compared the two dandelions: Marsh Dandelion has tight, dark-coloured phyllaries and almost straight-edged leaves while Common Dandelion has looser, lighter-coloured phyllaries and sharply-toothed leaves. Marsh Dandelion is not included in Henry Gleason's (1968) New Britton and Brown Illustrated Flora of Northeastern United States and Adjacent Canada, with good reason. It had not yet been verified then in eastern North America. When botanist Daniel Brunton and Karen McIntosh discovered and collected this plant in their lawn in Ottawa in 1984, they knew they were looking at something strikingly different. Daniel enlisted European *Taraxacum* expert A.J. Richards, who confirmed Daniel and Karen's identification and "further advised... that this constitutes the first record for Section *Palustria* ...outside of Europe (except Turkey)".² Daniel then researched the species in herbaria across Ontario, Quebec and New York and located the oldest Ontario collection at TRT, from York Region. His report became the first

verified occurrence of a species of Section *Palustria* in North America. Well done, Daniel and Karen. In 1992, Michael Oldham et al. reported “new county records from eight additional counties in Ontario, primarily in the southwest. [*Taraxacum palustre*] is now known in Ontario north to Manitoulin Island and Algoma District.”³

We saw that many alvar plants like Rock Sandwort (*Sabulina michauxii*), Mountain Death Camus (*Anticlea elegans*), Bicknell’s Geranium (*Geranium* cf. *bicknellii*) were not even blooming, or barely in bud like Bastard Toadflax (*Comandra umbellata*), Dwarf Lake Iris (*Iris lacustris*) and Lakeside Daisy (*Tetraneuris herbacea*). (The latter two are not found on the Carden alvar, so they were lifers for me.) Here on the alvar, as in the deciduous forest, blooming times had been pushed back by the cold wet weather. One plant that was in flower was the tiny but very fragrant Low Calamint (*Clinopodium arkansanum*). In all of Canada, this plant occurs only in Ontario⁴. The little alvar sedge, Richardson’s Sedge (*Carex richardsonii*) with its red candy-striped stem section just below the flower, was also in bloom.

Throughout the day, we noticed that even some of the ferns like Bracken Fern (*Pteridium aquilinum*), Sensitive Fern (*Onoclea sensibilis*), Limestone Oak Fern (*Gymnocarpium robertianum*), Purple-stemmed Cliffbrake (*Pellaea atropurpurea*), and MacKay’s Brittle Fern (*Cystopteris tenuis*) were just barely unfurling. Walter pointed out Northern Holly Fern (*Polystichum lonchitis*) and told us to beware that we did not confuse it with its cousin, Christmas Fern (*Polystichum acrostichoides*) that we did not find. The contrast of the lime-green freshness of the fronds that stood erect above last year’s dark green fronds took my breath away and had me standing a long time, admiring this fern I had never seen before. Hart’s Tongue Fern (*Asplenium scolopendrium*) was another special find, and were it not for last year’s fronds, would have been easily overlooked.

In one location, Walter led us to a moss-covered rock wall that supported hundreds of Limestone Maidenhair Spleenwort (*Asplenium trichomanes* ssp. *quadrivalens*). On this fern, the leaves are opposite, whereas in the Green Spleenwort (*Asplenium viride*) that we had been shown earlier, the leaves are alternate. The final fern that we were shown was Wallrue Spleenwort (*Asplenium rutamuraria*), well-named for growing in crevices of rock walls in the ‘old country’.

Walter’s humour, always delivered with a smile and a twinkle, brightened our overcast day:

1. False Solomon’s Seal (*Maianthemum racemosum*): how would you like to be known, not by your own name, but as who you are not? For example, everyone here but one could be ‘False Walter’.



Hart’s Tongue Fern (*Asplenium scolopendrium*). Photo: S. Radovic.

1. Red Trilliums do have a fragrance, if you want to call it that. Another common name for them is “Stinking Benjamin”.
2. Be careful what you say around Sensitive Fern (*Onoclea sensibilis*); you may hurt its feelings.
3. When asked about whether a plant was edible, Walter’s response was “You can eat anything...once!”
4. When will it be politically-incorrect to say “Lady Fern (*Athyria filix-femina*) doesn’t shave her legs?”
5. Who was the botanist who coined the term: ‘stemless’ for violets, meaning they do not have a stem if a leaf is not attached? Go figure.
6. Going for a wild leak? Nice ash!
7. And this is a ‘cedar tree’ just in case you didn’t know.

Spending the day with Walter north of Wiarton was relaxing and very pleasant. Our thanks, Walter, for sharing your time, expertise and wit with us. ✱

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Reznicek rocks in Rockwood

25 August, 2018

By Andrew Dean

The Rockwood Conservation Area northeast of Guelph is administered by the Grand River Conservation Authority. It is famously known for its unique landforms of cliffs and stunning potholes carved out during the last glaciation. The Eramosa River flows through the property and is controlled to form a reservoir which was formerly used in the 1800s for a woollen mill.

Botanically, the habitats are dominated by species of a more northern affinity, and is somewhat disjunct in its southern Ontario locale nearby the Carolinian zone. Conifers such as White Cedar (*Thuja occidentalis*), Balsam Fir (*Abies balsamifera*), White Spruce (*Picea glauca*), and White Pine (*Pinus strobus*) dominate the forests, and the habitats in general resemble those of the Bruce Peninsula. Sugar Maple-Beech hardwood forests are found in the uplands, and the conifer stands dominate the sinkhole rims. In general, the vegetation is distinct to the landform and there are predictable changes in the vegetation communities. Our field trip leader for the day, Tony Reznicek, has a long history of botanizing in the area and has an intimate knowledge of the habitats and plants found therein.

Tony explained that the ‘karstic’ habitats we would be exploring are defined by the sinkhole and karst landform/topography. The characteristic potholes are carvings or cavities in the limestone bedrock, sometimes circular, formed by rapidly rushing waters during the last glaciation where coarse fragments moving in a circular motion scoured out the limestone over hundreds of years.

We set off for the day into a mature conifer forest. Tony explained that the shallow limestone bedrock retains water despite the upland look and feel, supporting rich species such as Wild Ginger (*Asarum canadense*), Ebony Sedge (*Carex eburnea*), Herb-robert (*Geranium robertianum*), Blue Cohosh (*Caulophyllum* sp.), False Solomon’s Seal (*Maianthemum racemosum*), Wild Basil (*Clinopodium vulgare*), Bulblet Fern (*Cystopteris bulbifera*), Nipplewort (*Lapsana communis*), Large-leaved Aster

(*Eurybia macrophylla*), and Common Speedwell (*Veronica officinalis*) were commonly encountered. Interestingly, the sterile hybrid of White Avenas (*Geum canadense*) and Wood Avenas (*Geum urbanum*) was identified: *Geum x catlingii* that, according to Michigan Flora Online, is probably overlooked. Gigantic Fescue (*Lolium giganteum*, formerly *Festuca gigantea* or *Schedonorus giganteus*) was seen along the trailside with its characteristic shiny leaves; there are



Rockwood Conservation Area as seen from a cliff peak. Rockwood Reservoir (Eramosa River) is the waterbody. Photo: A. Dean.

few records of this non-native species and its invasive potential is currently unknown. Maidenhair Spleenwort (*Asplenium trichomanes*) was abundant on limestone outcrops in some areas



Green Spleenwort (top), Maidenhair Spleenwort (bottom). Photo: A. Dean.

and its two subspecies were discussed; ssp. *quadrivalens* is tetraploid and the more common and prefers calcareous habitats, whereas ssp. *trichomanes* is relatively rare, diploid, and prefers granitic habitats. Green Spleenwort (*Asplenium viride*) in contrast to *A. trichomanes* grows in cool shady microclimates and has a green stem as opposed to a black stem.

Smooth Cliff-brake (*Pellaea glabella*) was observed on the limestone cliffs and overhangs; this species is not dependent on rainwater and can persist in harsh habitats by drawing on moisture from the limestone substrates. Purple-stem Cliff-brake (*Pellaea atropurpurea*) may be present in the park but was not seen. Purple-stem Cliff-brake is separated from Smooth Cliff-brake by a finely hairy stem.

The regionally rare Climbing Fumitory (*Adlumia fungosa*) is known from the park but was also not seen; in order to see this species one must be equipped with climbing gear as it grows high up on the cliff faces. Another regional rarity, Sharp-leaved Goldenrod (*Solidago arguta* var. *arguta*) was admired in full flower. This species is near

the western extent of its range in Wellington County according to the University of Waterloo's Astereae Lab (J.C. Semple 2013) (<https://uwaterloo.ca/astereae-lab/research/goldenrods/classification-and-illustrations>). It looks like Rough-leaved Goldenrod (*Solidago patula*), but grows in very different habitat and its leaves are not roughened (or very minimally).

By mid-afternoon a storm was upon us, but we could not pack it in for the day without seeing Walking Fern (*Asplenium rhizophyllum*), aptly named as the frond tips will root into the substrate and



Sharp-leaved Goldenrod in full flower growing in shallow bedrock cedar forest. Photo: A. Dean.

reproduce vegetatively, thereby forming colonies. Considerable effort was spent trying to locate this species as deer will readily browse any fronds within reach. As the trip attendees scurried back to the parking lot in heavy downpour, a couple of diligent and utterly committed botanists refused to accept defeat. They found remnants of Back's Sedge (*Carex backii*) from back in June and 'top-snatched' the scraps to show the few that remained soaking wet in the parking lot. Back's Sedge is distinct for its upper bract covering most or all of the inflorescence, with an expanded culm at the top before the inflorescence.

Many thanks to our leader for the day, Tony Reznicek, for his knowledge impartment and botanical anecdotes. ✱

Exploring the Goodrich-Loomis Conservation Area

24 August 2019

By Michael McMurtry

This was a joint outing co-hosted by Lower Trent Conservation (LTC) and the Field Botanists of Ontario (FBO) and led by Ewa Bednarczuk, Ecology and Stewardship Specialist with the Authority. She explained that the mandate of LTC is to protect wetlands, provide stewardship advice to landowners in the lower Trent River watershed, and restore habitats back to a more natural state. She described how Murray Marsh is the heart of the watershed, but that the Goodrich-Loomis Conservation Area has the highest diversity of plants and animals in the region.



Goodrich-Loomis is situated on Cold Creek, which is fed by runoff from lobes of the Oak Ridges Moraine, which in turn, joins the Trent River near the beginning of Percy Reach. Ewa pointed to features in the watershed using a very helpful three-dimensional map showing elevation. Cold Creek is a fine cold-water stream with Brook Trout and Brown Trout sought after by anglers. In an inventory of plants and animals in the Lower Trent watershed, Sean Blaney and Vivian Brownell showed that the Cold Creek Complex, which includes Goodrich-Loomis, has a high number of rare plants, in relation to other sites they studied. It is situated on kame, esker and Lake Iroquois shoreline landforms and the plant communities

represented include dry oak-pine woodland, mature hemlock-white cedar swamp, mesic prairie on kame and esker, mature sugar maple-oak forest and kettle bog (Brownell and Blaney, 1995).

Our group was comprised of people from the general public responding to promotional material distributed by LTC and by members of FBO. The scope of topics and questions reflected the diverse backgrounds of the participants. After Ewa's introduction, we set out towards one of the patches of prairie that had been identified by Brownell and Blaney. On our way, we passed through a Red Pine (*Pinus resinosa*) plantation forest. Along the path we saw a mix of interesting native plants as well as some invasive and other non-native species: Black Oak (*Quercus velutina*) seedling, Pale-leaved Sunflower (*Helianthus strumosus*), European Swallowwort, known by most as Dog-strangling Vine (*Vincetoxicum rossicum*), Wild Cucumber (*Echinocystis lobata*), Greater Celandine (*Chelidonium majus*), White Sweet-clover (*Melilotus albus*) and Black Locust (*Robinia pseudoacacia*). Ewa pointed out that Dog-strangling Vine, like other members of the Milkweed Family, attracts Monarch butterflies to lay their eggs on it. When the larvae hatch, they don't like to feed on it, so this can have a negative affect on survival of this threatened species.

We reached a large opening dominated by grasses and forbs and Ewa explained efforts to maintain and enhance the prairie plants there. Some of the woody vegetation had been removed mechanically and there was a controlled burn in 2010. We saw numerous patches of Big Bluestem (*Andropogon gerardii*), Little Bluestem (*Schizachyrium scoparium*) and a few of Yellow Indian Grass (*Sorghastrum nutans*). Butterfly Milkweed (*Asclepias tuberosa*) was in flower in several places, delighting us with its burnished orange colour. One of us described the flower petals as being on two sides of the flower, one side being almost a mirror image of the other. Other species in this prairie opening were Grey-stemmed Goldenrod (*Solidago nemoralis*), Heath Aster (*Symphyotrichum ericoides*), Clammy Ground-cherry (*Physalis heterophylla*) and Showy Tick-trefoil (*Desmodium canadense*), Tall Anemone (a.k.a. Thimbleweed, *Anemone virginiana*), Smooth Brome (*Bromus inermis*), Grey Dogwood (*Cornus racemosa*) and Black Oak. Sundial Lupine (*Lupinus perennis*) had been planted by Conservation Authority staff and volunteers in several places. Catling et al. (1992) reported that Catherine Parr Traill and John Macoun had both observed it in the 1800s on the Rice Lake Plains, but it was not among the plants observed by Brownell and Blaney at Cold Creek in 1994, so it is not clear whether it ever existed in the Cold Creek area prior to planting. Other generalist species of open habitats, such as Kentucky Bluegrass (*Poa pratensis*), Trembling Aspen (*Populus*



Ewa Bednarczuk and trip participants. Photo: M. McMurtry.

tremuloides), Common Panicgrass (*Panicum capillare*) and Western Poison Ivy (*Toxicodendron radicans* var. *rydbergii*) were also present. We saw numerous Monarchs and a couple of Monarch larvae on milkweed, as well as a Giant Swallowtail. Basal leaves of a sedge (*Carex*) were common, but it was not identifiable at this time of year.

Our tour then took us back to a plantation trail. The forest was dominated by planted Red Pine, with occasional Red Oak (*Quercus rubra*), Bitternut Hickory (*Carya cordiformis*), White Oak (*Quercus alba*) Sugar Maple (*Acer saccharum*), American Elm (*Ulmus americana*) and American Basswood (*Tilia americana*). The shrub layer had Round-leaved Dogwood (*Cornus rugosa*) and Eastern Red Cedar (*Juniperus virginiana*). Some large oaks looked to be a hybrid between Red Oak and Black Oak based on the leaf shape. Plants in the herbaceous layer included Large Tick-trefoil (*Hylodesmum glutinosum*) Bracken Fern (*Pteridium aquilinum*), Hairy Solomon's Seal (*Polygonatum pubescens*), Common Ragweed (*Ambrosia artemisiifolia*), Marginal Wood Fern (*Dryopteris marginalis*), Wild Sarsaparilla (*Aralia nudicaulis*), Pussy Toes (tentatively *Antennaria neglecta*), and Blue Cohosh (*Caulophyllum* sp., no longer in flower so its two species could not be separated), Tall Goldenrod (*Solidago altissima*) and Garden Bird's-foot Trefoil (*Lotus corniculatus*). Skirting the prairie again we saw Long-headed Anemone (*Anemone cylindrica*), Yellow Indian Grass, Switchgrass (*Panicum virgatum*), Scarlet Beebalm, a.k.a.



Monarch caterpillar on Butterfly Milkweed. Photo: D. Campbell.

Bergamot (*Monarda didyma*) and Common Milkweed (*Asclepias syriaca*). Next to the prairie here was the legacy of previous plantings: Norway Spruce (*Picea abies*), White Spruce (*Picea*

glauca) and Canada, or Carolina, Poplar (*Populus x canadensis*). Along the trail, Bouncing-bet (*Saponaria officinalis*) was observed, appearing to have at least double the number of petals as normal specimen. We surmised that it may have had an unusual chromosome number.

We stopped for lunch at a picnic shelter near the parking lot (this Conservation Area has all the amenities) and shared our backgrounds and activities of the FBO. We had participants from Toronto, Peterborough, Campbellford, Battersea (north of Kingston) and other locations. After lunch we headed off to the Esker Trail to check out one of the few eskers in southern Ontario that retains most of its natural vegetation (many of our eskers in southern Ontario have been claimed for aggregate extraction).

The climb up the Esker Trail was quite steep and the drop-off at the sides of the esker was surprisingly steep. You pass through a mixed forest including White Pine (*Pinus strobus*), White Oak, and Paper Birch (*Betula papyrifera*), with an understory of Ironwood (*Ostrya virginiana*). The ground layer is quite varied with a variety of ferns, such as Bulblet Bladder Fern (*Cystopteris bulbifera*), Christmas Fern (*Polystichum acrostichoides*), Sensitive Fern (*Onoclea sensibilis*), Ostrich Fern (*Matteuccia struthiopteris*) and Northern Maidenhair Fern (*Adiantum pedatum*) in moister areas; and Rock Polypody (*Polypodium virginianum*) on the slope of the esker and Bracken Fern in drier open areas. We also saw Blue-stemmed Goldenrod (*Solidago caesia*), Maryland Sanicle (*Sanicula marilandica*), Bergamot, Spreading Dogbane (*Apocynum androsaemifolium*), Grey Dogwood (very showy with blue-grey fruit and reddish pedicels), Round-leaved Dogwood, Large-leaved Aster (*Eurybia macrophylla*), Bottlebrush Grass (*Elymus hystrix*), Round-lobed Hepatica (*Hepatica americana*), Large-flowered Bellwort (*Uvularia grandiflora*) and Pennsylvania Sedge (*Carex pensylvanica*). In one spot we saw a jewel-like chrysalis of Monarch, hanging by a thread from the vegetation. In small openings we saw both Canada Tick-trefoil and Large Tick-trefoil, as well as Pale-leaved Sunflower. Part of the trail followed Cold Creek closely with its associated rich riparian flora. The afternoon was getting on, so we didn't explore it as thoroughly as we might have otherwise. One of the plants near the river that caught our eye was Great Blue Lobelia (*Lobelia siphilitica*). There was also Spotted Joe Pye Weed (*Eutrochium maculatum*), Canada Honewort (*Cryptotaenia canadensis*), Spotted Jewelweed (*Impatiens capensis*), Bur-marigold (likely *Bidens cernua*), Narrow-leaved Cattail (*Typha angustifolia*), Spotted Water-hemlock (*Cicuta maculata*) and more.

We made our way back to our starting point near the parking lot and thanked Ewa for sharing her knowledge of a fascinating place. I, for one, will be returning soon to

explore other parts of the Goodrich-Loomis Conservation Area. ✱

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Recent Spread of Wild Chervil in Halton

By W.D. McIlveen and Dilys Bowman

Wild Chervil (*Anthriscus sylvestris*) is an introduced European member of the parsley family (Apiaceae). It is similar in appearance to Wild Carrot and to several other species in that family. It is included on the Ontario Invasive Species Awareness Program list owing to its tall, leafy growth that shades out competing plants thus reducing their access to water and nutrients, its prolific seed production, unpalatability to livestock, and a deep root system, along with inherent resistance to several common herbicides. Though it occurs at many other locations in Ontario, this article aims to trace its spread through part of Halton in recent years.



Figure 1. Stand of Wild Chervil at Crewson's Corners, west of Acton. June 3, 2018. Photo: W. D. McIlveen.



Figure 2. Distribution of Wild Chervil based on herbarium specimens in North America (after Darbyshire *et al.*, 1999.)

The earliest record of Wild Chervil (Fig. 1) in Ontario appears to be a specimen collected in 1930 [Darbyshire *et al.*, 1999], but the species had arrived in Canada from Europe much earlier: records from 1878 and 1879 are based on unconfirmed or lost specimens but a sample collected in New Brunswick in 1904 proves that Wild Chervil has been in Canada for over 100 years. The distribution of all the then-known specimens from Canada was mapped by Darbyshire *et al.* (1999; Fig. 2).

The species is widely dispersed in Ontario though the numbers of collections available to Darbyshire may not truly reflect its abundance at any given location. Despite this, there appear to be clusters of specimens from three places. One is in Eastern Ontario and may be part of a larger group near Montreal. There are clusters of samples from the area of Norfolk County and at the base of the Bruce Peninsula. Anyone passing through the Owen Sound area in late May can readily see the Wild Chervil infestation of roadsides and fencerows in that location.

In the Central Region of Southern Ontario, Wild Chervil was known from Halton,

Simcoe and York Counties as well as a sight record from Peel [Riley, 1989]. The Halton records are likely based on specimens in the Erindale herbarium collection (W. Crins database). The three plants collected by different individuals in 1974 and 1982 are apparently from the same general location of Sixteen Mile Creek and Highway 5. Dispersal from this location to nearby locations or downstream in the river valley has not been observed.

It is uncertain when the subject of the present investigation first occurred at Silver Creek north of Georgetown. The centre of the area of the greatest infestation there is located near the intersection of Sideroad 27 and 9th Line, Halton Hills. We likely first noticed the Wild Chervil there in the very early 1990s but the species was not properly identified at that time. Over time, the Wild Chervil thrived and became very abundant along roadsides, fencerows and uncut fields in that vicinity though it should be noted that much of the area is covered in woodland. The species was not reported at Scotsdale Farm located just to the west of the Silver Creek when Webber conducted a flora inventory of that property in 1983. We can be relatively certain that the infestation of concern developed after this date.

By 2011, Wild Chervil was appearing at sites somewhat removed from Silver Creek. A brief survey was conducted that year to define



Figure 3. Distribution of Wild Chervil sightings in Halton, 2011.



Figure 4. Distribution of Wild Chervil sightings in Halton, 2018.



Figure 5. Distribution of Wild Chervil by abundance in Halton, 2018.

the extent of the spread (Fig. 3). Several years later, the species was obviously spreading even further so a more-detailed survey was undertaken. This included driving all of the roads in the area to find the most-distant locations where the species was present. Geographic coordinates for flowering stands were determined. The size or abundance of Chervil stands was scored on an arbitrary scale of 'Few' (less than 10 plants), 'Several' (10-25 plants), 'Many' (25-100 plants) and 'Abundant' (over 100 plants). The survey was done in early June when the Chervil was in flower. Chervil flowers before Wild Carrot which looks quite similar so

the two were not confused during the survey. The records of presence of Wild Chervil are indicated in Figure 4. A comparison of Figures 3 and 4 clearly show that the species had spread even further from Silver Creek between 2011 and 2018. Some colonies are now located not too far from Milton. It is doubtful that the small colonies observed in the far west of Halton are linked to the Silver Creek infestation. The relative abundance scores of the Chervil populations recorded in 2018 are presented in Figure 5. It is quite apparent that the largest stands of Chervil are located nearest to Silver Creek. The smaller, and therefore presumed fresh, young colonies are located farther from and south of Silver Creek. Logic would suggest that the small colonies will increase in size and new ones will form even further from the original site.

Except for the fact that the largest stands of flowering Chervil are conspicuous, the presence of the species may go unnoticed: the casual observer would presume that a small group of plants are only Wild Carrot. It does not help that the species was not included in popular wildflower guides and is not included in the Ontario Weeds guide [Montgomery and Switzer, 1967]. More recently, the species has been treated as a significant invasive though perhaps at a slightly lower level of concern than the very worst ones. It likely has gotten the attention it deserves with its inclusion in the Schedule of Noxious Weeds list that was released on January 1, 2015 [Weed Control Act]. ✱

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