



## Native Plant to Know

# Coastal Plain Gentian

*Gentiana catesbaei*

by Stephen Johnson and Mary Stark

As its most frequently used common name suggests, coastal plain gentian (*Gentiana catesbaei*) is found along the coastal plain of the eastern United States, as far north as New Jersey, south to Florida and west to Alabama. As an acid- and moisture-loving species, coastal plain gentian can be found in a range of southern U.S. regional habitats. These range from traditional bog margins, damp sands, wet woods and pinelands, where it shares habitat with pitcher plants (*Sarracenia purpurea*), to pocosins and Carolina bays to blackwater stream heads and cypress-gum swamps. (Pocosins are upland bogs, the word “pocosin” apparently coming from the Algonquian word for “swamp on a hill”. Carolina bays are shallow acidic wetlands sometimes miles long with a characteristic ovate-deltoid shape.)

Coastal plain gentian came to the attention of the western world when plant explorer Mark Catesby presented his painting of this gentian in his *Natural History of Carolina, Florida and the Bahama Islands*, published in 1754. It was Catesby’s drawings and descriptions of such lovely native American flora that provoked great desire in European gardeners. In 1788, the English botanist Thomas Walter, who lived and worked in the South

Carolina colony, published *Flora Caroliniana*, the first American flora to use the Linnaean classification system. In it, he officially described coastal plain gentian and named it in honour of Catesby.

In 1831, South Carolina botanist Stephen Elliot further described *G. catesbaei* in *A Sketch of the Botany of South Carolina and Georgia*. In this publication, Elliot investigated the ways that local people utilized two gentians, both referred to as Sampson’s snakeroot (*Gentiana ochroleuca* and *G. catesbaei*). Both made excellent bitter tonics but *G. catesbaei* “seems to be more particularly entitled to notice.” This, Elliott said, was because the decoction from *G. ochroleuca* was more likely to cause nausea.

Coastal plain gentian’s closest *doppelgänger*, soapwort gentian (*Gentiana saponaria*), has a much greater range occurring as far north and west as Minnesota. It is the closest match in habitat preferences, flowering times and growth habits. The similarity is so striking that in the 1930’s, Virginia artist Bessie Niemeyer Marshall painted a gentian that present-day

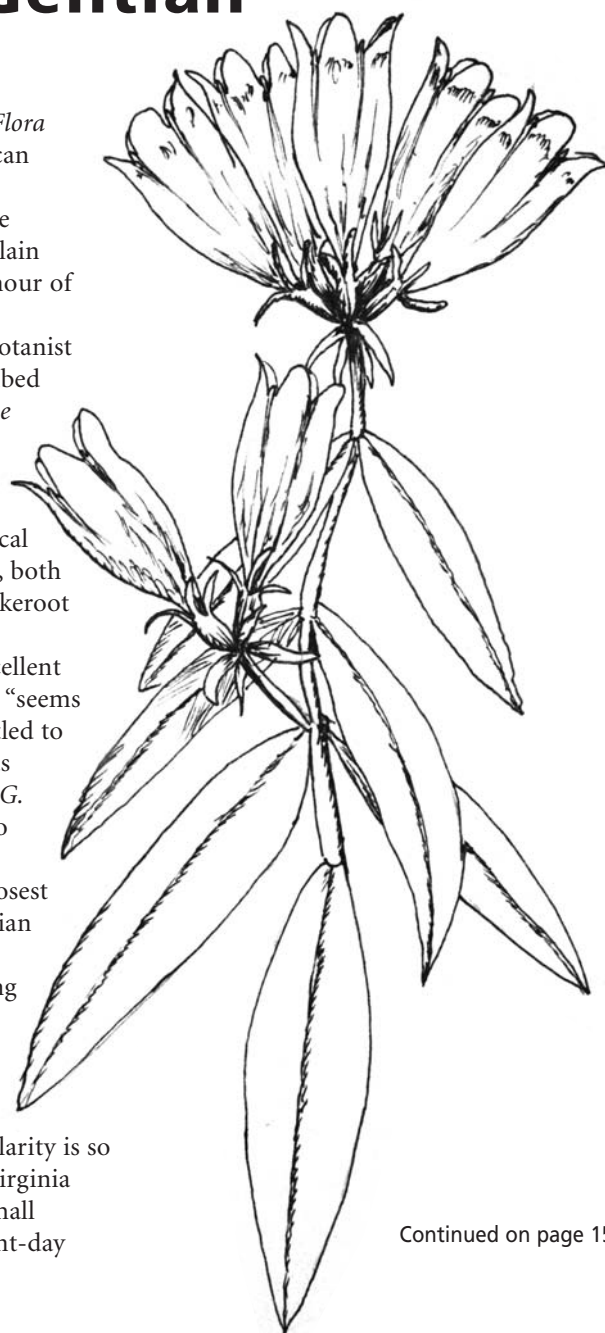


ILLUSTRATION BY STEPHEN JOHNSON

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## The *Blazing Star* is . . .

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## Editorial

“Did you have fun on the weekend?”

“YES! I went to the annual general meeting of the North American Native Plant Society.”

“That sounds boring, not fun!”

“It was really interesting. I came away inspired and uplifted. It was great to spend the day talking to native plant enthusiasts, snacking on organic pears and Canadian cheese, and seeing great slideshows.”

“Aren't AGMs for boring stuff like reports, bylaws and finances?”

“Yes, there was some of that, but it was good to know the Society is in great shape. NANPS has \$74,000 in liquid assets and owns land which was purchased for \$75,000. The by-law was updated a whole year before a government deadline. It was also nice to meet the board and other NANPS volunteers.”

“Who is on the board?”

“All sorts of interesting people. We were introduced to the new directors.

Bronwen Fitzsimons has a Masters in Environmental Studies from York University in Toronto. She works as an urban agriculture co-ordinator teaching sustainable gardening. Mukib Khan has a science degree from Dhaka University in Bangladesh and a Health Administration degree from Ryerson University in Toronto. A great photographer, he's creating a native plant garden at home. LeeAnne MacGregor has a degree in Environmental Studies from York University. She worked for the Bill & Melinda Gates Foundation in South Africa. Cass Stabler has a Masters of Science in Integrative Biology and has recently moved from the Rural Lambton Stewardship Network to the Toronto and Region Conservation Authority.”

“That's a great group!”

“The meeting was full of smart and dedicated people. Bill and Louise Ford bought a farm in Grey County. After a flood, they realized that some areas were not suitable for farming.

They re-created that area as a wetland, doing major construction and planting work to develop a fantastic habitat. They received a conservation award along with Carole Sevilla Brown, an American who runs a great website called Ecosystem Gardening. NANPS is creating an award in memory of Richard Woolger and his daughter gave a moving account of how he became a grower of native trees, ferns, and orchids. Irene Fedun, editor of *The Blazing Star*, was given the Volunteer of the Year Award. Peterborough's GreenUP received a Garden/Restoration Award for their Ecology Park. Moritz Sanio from the Grand River Conservation Authority gave a fascinating talk about collecting seeds. As he says: 'If you're working hard at growing native plants, you're probably not doing it right.'”

“Anything bad about the day?”

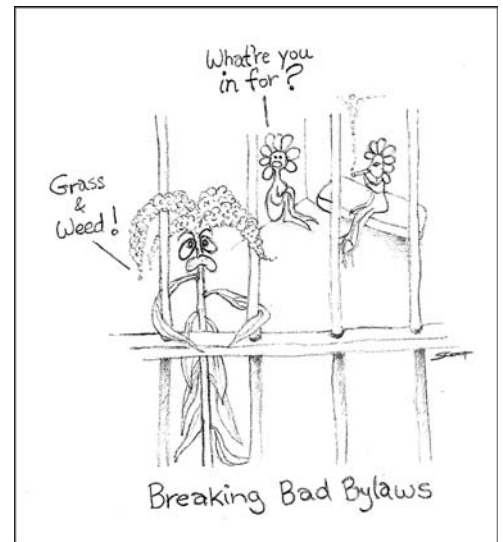
“Only about 35 people came. What a shame! It was free and a great day out.”

“We should go together next year. When will it be?”

“Probably mid-October but check [www.nanps.org](http://www.nanps.org) nearer the time.”

*John Oyston*

*John is a former NANPS Board member.*



CARTOON BY JANET HARRISON, THE LOCAL SCOOP

# NANPS NEWS

## BARBARA FALLIS SPEAKERS SERIES

JANUARY 22, 2014 Promoting Biodiversity  
in the Urban Landscape

7:30 p.m.

Landscape architect Scott Torrance will show how to create beautiful urban environments and promote biodiversity by using native plants.

Toronto Botanical Garden

777 Lawrence Avenue East, Toronto

Public \$25, Students \$15, TBG members free. Door sales only.

FEBRUARY 11, 2014 Native Plants for LEED  
7 p.m.

Daniels Faculty of Architecture, Landscape and Design  
University of Toronto

230 College Street, Room 103, Toronto

NANPS members \$12, General public \$20 and students free

MARCH 7, 2014 Garlic Mustard Control  
in Native Habitats

7 p.m.

Dr. Dawn Bazely

York University, Toronto

NANPS members \$12, general public \$20

MAY 10, 2014 North American Native Plant Society  
Annual Plant Sale

Watch our website at [www.nanps.org](http://www.nanps.org) for details.

MAY 12, 2014 Gardening: Planting the  
Right Seeds for Biodiversity

NANPS presentation at the Carden Community Centre,  
Lake Dalrymple, Ontario at 7 p.m. By donation.

*For more information about NANPS Speakers Series and other events please visit [www.nanps.org](http://www.nanps.org).*

## WANTED: More Seeds for NANPS Seed Exchange

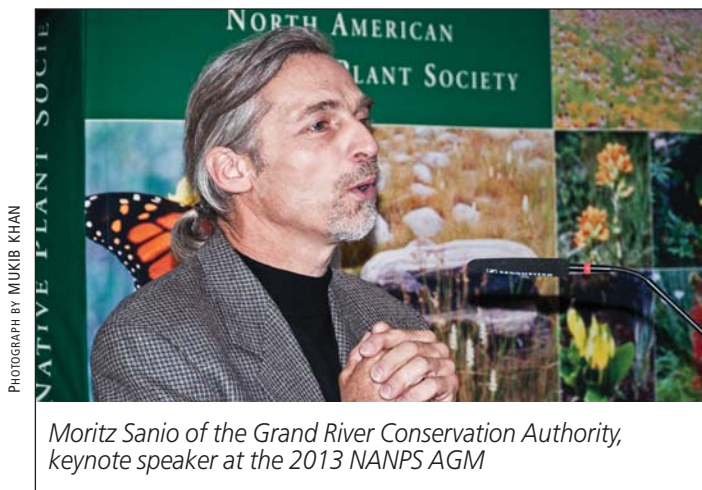
Please collect seeds from native plants where possible and remember to send in the seeds already collected for our annual seed exchange. Send them separated by species and identified with the source/parentage to NANPS, Box 84, Station D, Toronto, Ontario, M9A 4X1. If you have any questions contact [seeds@nanps.org](mailto:seeds@nanps.org).

## THE RICHARD WOOLGER NATIVE PLANT AWARD

As I was supervising the setup for the NANPS annual plant sale during my first year as plant sale chair, I remember very clearly watching Richard Woolger's truck back up to the building and the truck door slide open. Although the light was dim – because it was late on a Friday night – a glow radiated from the woodland plants lovingly assembled on specially built shelves in his truck. All I could think was “Wow!” and stand there in awe.

An enthusiastic gardener and native plant propagator who supplied woodland plants for our plant sale for many, many years, Richard passed away last spring. His gentle spirit, together with his special touch as a grower, were much missed this past year. After his death, the woodland section at our plant sale languished in comparison to previous years. Gone were the variety of ferns and the other, often rare, woodland species. The sparkle in that corner of the room was diminished. His shoes will be hard to fill.

To celebrate Richard's life and his contribution to the native plant conservation movement, the NANPS Board of Directors decided to create a special award. Most importantly, the award remembers and honours a long-time, active member of the society who proved to be dedicated and especially gifted at propagating woodland species. Secondly, the award is intended to encourage growers of native plants – including backyard amateurs – to help spread the genetics of local plant material within their communities. Finally, the award will recognize those who landscape with native plants and restore native plant habitats. NANPS wishes to nurture and support those with



MARCH 27, 2014 Gardening: Planting the Right  
Seeds for Biodiversity

The Beaverton Horticultural Society hosts a presentation by NANPS past president Paul LaPorte at St. Paul's Anglican Church in Beaverton, Ontario starting at 7:30 p.m. Explore the intricate connections between native plants and pollinators in the garden food chain. Learn how to establish a native plant garden with minimal effort and no chemicals. Discover how NANPS promotes native plants as an essential part of our ecology. By donation.



Richard Woolger in his shade house

a special gift for propagation and restoration so that Richard's legacy may live on.

Accompanied by a Powerpoint presentation of photos of Richard's life affectionately put together by NANPSTER Erika Thimm, his oldest daughter Linda van Andel told the story of his life to NANPS members assembled at the AGM. Our deepest condolences to Richard's wife, Edna, his daughters, Linda and Anne, and their families.

Miriam Henriques, NANPS Director

## ASK AN EXPERT

### Native Plants for Finches

I would appreciate it if you could let me know which plants and seeds finches feed on in the wild. My backyard finches won't eat seeds such as sunflower, niger or millet, but peck on some of my plants. Also, where I can find your recommendations?

S. Thomas, Ontario

Here are my suggestions:

*Silphium perfoliatum* (cup plant) is a beautiful and imposing plant. It provides water in the cup the leaves create and protection for the birds when the plant fills in. *Cirsium discolor* (native pasture thistle) is very important to finches for nesting material and seeds. The most visited plant in my garden by finches, it is quite rare. It is not picky or aggressive like its invasive non-native cousins *Cirsium vulgare* (bull thistle) and *Cirsium arvense* (Canada thistle). *Echinacea pallida* (pale purple coneflower) is the only native Ontario coneflower. *Helianthus* spp. (native sunflowers) need lots of room.

Complement the above flowers with *Schizachyrium scoparium* (little bluestem), a good winter seed source for many songbirds.

Many aster species are favoured by birds. I once walked in a field full of asters with loads of chickadees on the stems

eating seeds and swaying in the wind. Quite a sight! Many birds also like the cover provided by evergreen trees. They will often cache the seeds in areas of cover.

Most of these plants will be available at the NANPS plant sale in Markham (May 10th, 2014) or by advance order on our website ([www.nanps.org](http://www.nanps.org)) for members. Our approved native plant growers may also have them. Look for the one closest to you at [www.nanps.org](http://www.nanps.org) under the Sources tab, then Commercial Growers. Check the growers' on-line catalogues or contact them directly if you are looking for a particular plant.

Paul LaPorte

Paul is the past president of NANPS and part of our Native Plant Advisory Committee.

## In Memoriam: Dr. Jane Bowles

It is with deep regret that we announce the passing in July 2013 of Dr. Jane Bowles, biology professor at the University of Western Ontario and passionate advocate for Canada's Carolinian Zone. Jane took on innumerable conservation challenges, serving on Carolinian Canada's Science Advisory Committee, helping develop the Carolinian Woodlands Recovery Strategy, developing a methodology and doing much of the field work for the Maitland Valley Woodland Health Assessment, and serving as Director of the Sherwood Fox Arboretum, to name just a few of her activities. One of the authors of the original *Status Report for Wood Poppy*, published in 1991, Jane wrote *Wood Poppy: Rare for a Reason* for the summer 2003 issue of *The Blazing Star*. Her incisive analyses, generosity of spirit and dedication to plant ecology will be very much missed. Her family has asked that donations be made to the Thames Talbot Land Trust, [www.thamestalbotlandtrust.ca](http://www.thamestalbotlandtrust.ca), in Jane's memory.

## Correction

In the *Canada Goldenrod* article on page 1 of the summer 2013 issue of *The Blazing Star*, we stated: "The large heavy seeds are usually dispersed by bees and other pollinating insects." In fact, it's goldenrod's sticky, heavy pollen that is distributed by bees and other insects.



Eileen Atkinson, proofreader extraordinaire, on the left, with Irene Fedun, editor of *The Blazing Star*

# Welcome to Shaw Woods

by Grant Dobson

Old-growth forests are a rarity in eastern Canada, particularly near big cities, but there's one just an hour's drive west of Canada's capital, Ottawa, virtually untouched since European explorers first ventured up the Ottawa River. Known as Shaw Woods, this

Education Center Inc. is to foster an ethic of responsible environmental stewardship and sustainable forestry management through experiential education aimed at school children and the public at large.

As in any old-growth forest, there are many dead trees, some standing, others fallen over beside the trails.

mixed forests. John Shaw, a Scottish miller, and his wife Barbara Thompson arrived with their two-year-old son by canoe from Bytown (the former name of Ottawa) in 1847. Mammoth grist stones remain near the site of the original dam they built on the Snake River. The three-storey grist mill served early settlers who would often leave home at dawn, walk up to 20 kilometres (12 miles) with a 30-kilogram (66-pound) bag of grain on their back and return by nightfall with the ground flour.

For thousands of years before that, the river linked Algonquin people living along the shores of Lake Doré with the rest of the Ottawa River watershed. These wetlands represented a rich food source, both for animals that could be hunted and plants that could be gathered. The American elder (*Sambucus canadensis*) growing in abundance along the river banks served as both food and medicine. Further out into the marsh native peoples would gather broad-leaved arrowhead (*Sagittaria latifolia*) from muskrat lodges or wade barefoot into the mud for the plant's tasty potato-shaped tubers.

Seldom travelled today, the Snake, as the river is affectionately known, offers a great day trip. Go during high-water season or be prepared to pull out for beaver dams and fallen trees. If you launch from Lake Doré there is a free parking lot, a nice beach on shallow water and plenty of great spots for picnics. Doré's claim to fame: it's the world's largest inland freshwater lake without an island!

From the parking lot, paddle north to the outlet of Snake River and then on through Shaws Pond (the old maps skip the apostrophe) and downriver as far as you wish to explore. Several short portages are necessary. You can expect many opportunities to view waterfowl and aquatic mammals such as otters, minks and beavers.

Flowering plants are well represented along the shoreline and



PHOTOGRAPH BY GRANT DOBSON

Old-growth eastern hemlock (*Tsuga canadensis*)

magnificent forest is near Lake Doré. Walking into it is a journey back in time, a glimpse of wilderness in the 17th century Ottawa Valley.

A first-time visitor will be amazed simply by the height of the trees. The lowest branches of many of these sugar maples (*Acer saccharum*), American beeches (*Fagus grandifolia*) and eastern hemlocks (*Tsuga canadensis*) are as high as the canopy of many woodlots around Southern Ontario. Some of these trees are over two centuries old. Some have diameters up to one metre (three feet) across.

The woods first opened to the public in the 1970s. More recently, a not-for-profit, charitable organization of local volunteers has expanded the trail network, built boardwalks over sensitive areas and developed a self-guided interpretive program. The mandate of the Shaw Woods Outdoor

This in no way suggests that the forest is unhealthy. Very much the opposite is true. Down woody debris is the term used to describe all the woody material that accumulates on the forest floor. The resulting "messy" arrangement functions at a much higher level than the park-like forests we sometimes try to create. Many forest animals from snails to salamanders to shrews utilize the rich habitat to find food and shelter. Bark and fine twigs are also an important source of elements such as calcium. They are recycled through decomposition by countless invertebrates and then move back up the food chain.

These woods are named for the Shaw family that has lived here for many years and still allows public access to the 50 hectares (124 acres) of old-growth forest and an adjacent 160 hectares (395 acres) of wetlands and

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include large swathes of cardinal flower (*Lobelia cardinalis*), spotted Joe Pye weed (*Eupatorium maculatum*), blue vervain (*Verbena hastata*) and swamp milkweed (*Asclepias incarnata*).

The secretive Canada lynx is a rare northern mammal that makes its home in the surrounding woodlands. In spring, the chorus of wood warblers against a backdrop of wildflowers, ferns and fungi attracts many enthusiastic birdwatchers and naturalists from around the region.

Welcome additions to this beautiful wilderness are the new trailhead information kiosks. These were designed to blend into the natural landscape. The Shaw Woods have a great many rock outcroppings and glacial erratics topped with ferns and dwarf creeping shrubs which inspired the creation of green roofs both to shelter the kiosks and to accommodate similar plant communities.

The structures were built using a sturdy post and beam design of local white cedar (*Thuja occidentalis*). A waterproof membrane was then installed on the roof and 50-millimetre x 50-millimetre (two-inch by two-inch) cedar strips attached

every 460 millimetres (18 inches) down the slope to keep plants and soil in place. The bottom strip had 19-millimetre (3/4-inch) triangular notches cut out every 200 millimetres (eight inches) to allow for drainage. We next put down a 25-millimetre (one-inch) substrate layer (1/2 sandy loam, 1/4 peat, 1/4 compost) to contain the plants.

The plants we selected needed to be native to Shaw Woods and both drought- and cold- tolerant. As the centre is open year-round, winter interest was also a consideration. Our final plant list narrowed to four species: common polypody (*Polypodium virginianum*), bearberry (*Arctostaphylos uva-ursi*), partridgeberry (*Mitchella repens*) and pale corydalis (*Corydalis sempervirens*). Common polypody, also known as resurrection fern (so named for its ability to quickly restore its shriveled leathery fronds after



PHOTOGRAPH BY GRANT DOBSON

*Pale corydalis* - one of the standouts on the green roofs

extended drought), is a common species draped over glacial erratics and the rock outcroppings of the escarpment. Its creeping rhizome is well-suited to the very shallow, subacid soil of the rooftops. Bearberry's dark green, waxy leaves on long, trailing, reddish-brown branchlets are extremely drought-tolerant. The leaves, known as kinnikinnick, were historically used in a tobacco mixture. After many years of frustration with inconsistent success in rooting cuttings of this plant in our nursery, we now use ground layering for propagation. Partridgeberry is a small trailing vine forming part of the ground cover layer of this old-growth forest. Partridgeberry vines are easily smothered by accumulating layers of deciduous leaves; consequently, they do best on banks or, in our case, roofs, where most leaves tumble off them. The white to purple-fringed, fragrant flowers appear in late June; the scarlet fruit persists all winter – if not consumed by ruffed grouse or wild turkeys. Since it needs a little more soil moisture than the polypody or bearberry, we planted it towards the bottom slope of the roofs. Pale corydalis is a pretty flowering native that looks much better when grown on lean soil. Our plants stayed under 15 centimetres (six inches) and bloomed in May and again in late September.

Most green roofs have some transient heat coming from a building. In this case, they were fully exposed to -30C (-22F) weather. My fellow Shaw



PHOTOGRAPH BY GRANT DOBSON

Shaws Pond lookout

Woods board members were a little sceptical about the plantings but gave me, as the one primarily responsible for site interpretation and trail development, the benefit of the doubt. I was greatly relieved when the plants thrived.

You can best absorb the essence of Shaw Woods during a quiet walk along one of the six trails, a 7.5-kilometre (4.7-mile) network meandering through wetlands and forest, along the Snake River and Doré Scarp to a scenic lookout. The observation platform is a great place to stop for a lunch break and watch the comings and goings of a pair of bald eagles. Their enormous stick nest is visible high up in a white pine (*Pinus strobus*) across Shaws Pond. This man-made pond was created in the 18th century to provide water power for the grist mill and sawmill.

The origins of the escarpment you will be standing on go back considerably further than that. About 450 - 500 million years ago, during the Paleozoic era, at a time when life on earth was beginning to diversify rapidly, major catastrophic events



PHOTOGRAPH BY GRANT DOBSON

*Common polypody with partridgeberry on the west trailhead green roof*

shaped the backbone of the landscape around you. This happened when the earth's crust moved downwards about a kilometre (six-tenths of a mile) between the Mattawa and Petawawa faults. The dropped-down block of bedrock, several tens of kilometres wide, formed a rift valley known as the Ottawa Bonnechere Graben. There are three minor breaks in it; the one visible here is known as the Doré Scarp.

Jump ahead to 11,000 years ago and the Wisconsin Glacier's massive weight of two-kilometre-deep (1.2 miles) ice has sheared off, transporting and depositing the glacial erratics you will see across the pond along the Old-Growth Trail. For a period of time, the glacier blocked the current outlet of Lake Doré and carved out the Great Gulley just to your west over the ridge. During that time, the landscape here would have looked remarkably different, similar to the shrub tundra of today's Hudson Bay coastline. Over the following 1,000 years or so, an open forest of jack pine (*Pinus banksiana*), black spruce (*Picea mariana*), balsam fir (*Abies balsamea*) and poplar (*Populus* spp.) gradually developed.

Jump ahead once again to 5,000 years ago and most of the individual organisms present today had arrived from residual populations to the south of the glacier's reach. The northern temperate forest, as we know it here, is a relatively recent incarnation. This forest type is characterized (and this makes it unique among all the world's forests) by three distinct groups of organisms, all of which evolved together under its protective canopy: wood warblers, spring ephemerals and salamanders.

Two interpretive map-guides illuminate the numerous connections between the biological, geological and human histories of the land. Many of these are easily seen at numbered stops along the trail system.

Whether you stop in for an hour's walk or a whole day, admission and parking are both free. For trail maps, visitor guides and other information go to [www.shawwoods.ca](http://www.shawwoods.ca). Check the Shaw Woods Facebook page for numerous photos and descriptions of flora, fauna and other items of interest.

*Grant Dobson is a volunteer director of the Shaw Woods Outdoor Education Center Inc. In his spare time he is developing a botanic garden of Ottawa Valley indigenous plants. He also operates a nursery and market garden with his wife Dorothy ([www.connaughtnursery.com](http://www.connaughtnursery.com)).*



PHOTOGRAPH BY DOROTHY DOBSON

*Grant Dobson installing plants on one of the experimental green roofs at Shaw Woods*

# Discovering Native Plants

by Peter Moore

Let's start with full disclosure: don't they say confession is good for the soul? A few years ago, on the advice of a well-meaning landscaper, I planted periwinkle (*Vinca minor*). Do I hear a collective gasp of dismay? To make things worse, my yard backs onto Robinson Creek, part of the Rouge Valley watershed in Markham, Ontario – Toronto and Region Conservation Authority (TRCA) land. Ouch. Soon

opportunity to have a yard and garden. The backyard, looking onto forested conservation land, was then dominated by an aging monstrosity of a deck. It screamed to be transformed into something more multifunctional.

After the deck demolition, the backyard was reduced to a war zone of old boards, bent nails and exposed clay. A TRCA representative arrived for an inspection in support of the new deck permit. After taking care of business, we talked about possibilities for the garden and she later emailed me information about Ontario native plants.

Alas, I did not act on the information at the time. We hired our neighbour's son, a trained landscaper, to help me build the garden. We installed a beautiful but quite traditional garden that encompassed the mature eastern white cedars (*Thuja occidentalis*) and included garden centre hydrangeas, hostas, a sedge cultivar... and we couldn't resist a Japanese maple for a sunny corner.

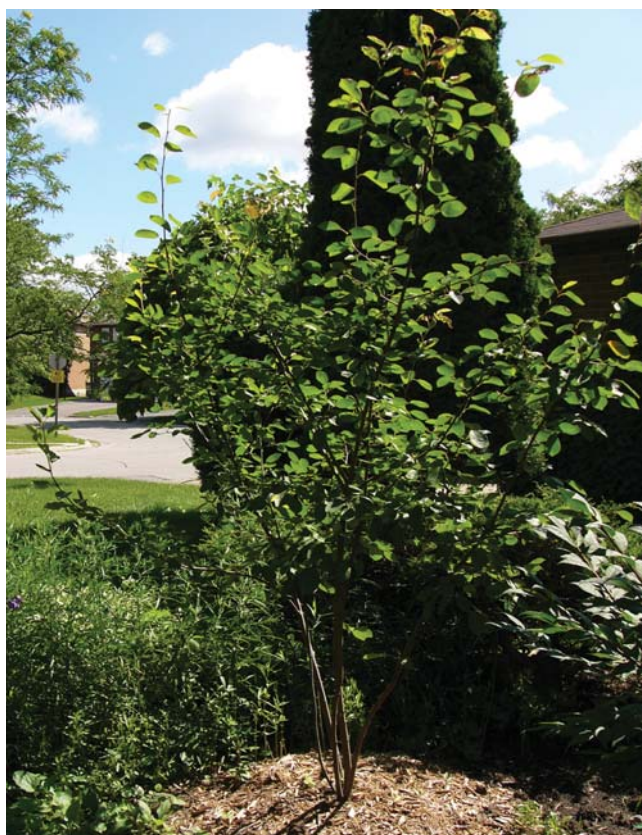
The next spring I learned that periwinkle was an invasive plant after volunteering in a

garlic mustard (*Alliaria petiolata*) pull in Cedar Valley Park; we received an invasive plant identification booklet for our efforts. Our periwinkle has now been replaced by woodland strawberry (*Fragaria vesca*), an ideal, low-growing plant for shade which is spreading nicely. I also replaced the cultivar sedge with black-fruited sedge (*Carex eburnia*) from Native Plants in Claremont. Black-fruited sedge grows

up to 30 centimetres (one foot), has thin, wiry leaves and sprouts tiny black seeds which attract songbirds and butterflies. Also, it is drought-tolerant, good for its position at the forefront of the garden, which gets afternoon sun.

I had my eye on renovating the smaller front yard garden and wanted to continue my experimentation with native plants. I've always liked ferns, partly because they are old plants, already ancient when the earliest dinosaurs lived 300 million years ago. Perhaps it's also the happy childhood association I have with the uninterrupted stretch of tall bracken (*Pteridium aquilinum*) that bordered my grandparents' home on Trout Lake near North Bay, where I spent summers as a kid. My brother and sister and I had to traverse the ferns to reach the neighbour's house, an elderly couple who always had treats for us. Wading through those giant ferns, a child could easily conjure up a miniature prehistoric rainforest, with mysterious creatures living in their shade. I tell Sarah, my six-year-old, that fairies live under the ferns. She laughs and says that's silly, but still, I think she wonders.

With these associations in mind, I buy bulblet ferns (*Cystopteris bulbifera*), wild columbine (*Aquilegia canadensis*), sky blue aster (*Symphyotrichum oolentangiense*), and black-eyed Susan (*Rudbeckia hirta*) from the NANPS plant sale to replace the existing ornamentals. The front yard garden is half in shade, so the ferns and columbines create the shade garden. The other half is in full afternoon sun; the asters and Rudbeckia go there. Also from the sunny side, I pull out an unwieldy, nondescript bush, stump and all, and replace it with fresh soil, mulch and a serviceberry (*Amelanchier canadensis*). The humble serviceberry is an amazing shrub. It produces a delicate explosion of white flowers in May or June, which dissipates quickly. In its second year, our serviceberry



PHOTOGRAPH BY PETER MOORE

Serviceberry

recognizing the error of my ways, I spent the next summer painstakingly pulling out the offending invasive ground cover. That's when I became a converted native plants enthusiast.

After we were married in 2001, Mary and I lived the condominium life in Scarborough, Ontario for a few years. When our kids came along, we moved into our first house in Markham. With that, came the



produced red-purple fruit; the robins vied with my kids to see who could grab and eat them first. Goldfinches are known to build their nests in the crooks of its branches. In the wild, several species of serviceberry provide high value browse for moose and deer; its young bark is food for beaver, rabbits and squirrels. One wonders why there aren't more urban serviceberry trees. Perhaps part of the answer lies in the diversity of trees and shrubs now available in garden centres, and what is popular; witness our first choice of a Japanese maple before becoming educated about native plants.

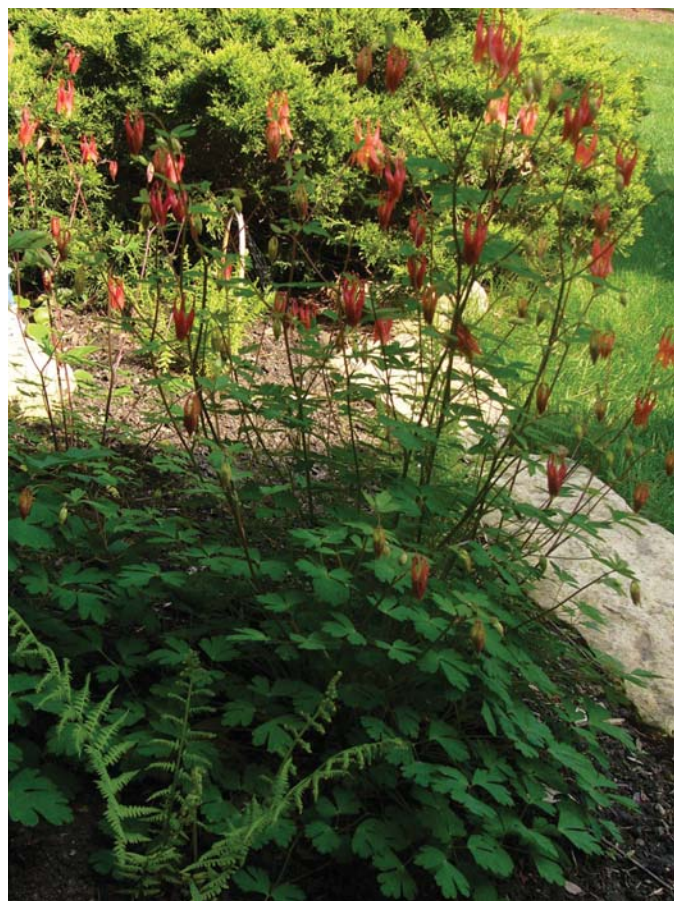
Along the way I've learned a few things about planting natives. Firstly, most ornamentals can be expected to obediently stay put. Native plants, well, you could say their reason for existence is to propagate. In their second year, the asters went crazy, sending their runners underground and popping up all over the garden. I had to work to control them. The second thing I've learned about is the blessing and curse of rabbits, deer and other furry woodland creatures attracted to what you've just planted. One of the first early summer mornings in our home, we had the pleasure of waking up to see a doe and two fawns, their coats still mottled with white spots, standing in the forest, the morning sun slanting in upon them. My benevolent attitude changed after the gardens went in and the deer came to regard my efforts as a free buffet. How convenient that I had provided the very plants that they are genetically programmed to eat! It has been frustrating to see entire plants defoliated or pulled out of the ground. My "wars" with the deer have become legendary in our household. I've tried many things with varying success: coyote urine (abandoned after ethical concerns regarding the collection), fresh dryer sheets (Bounce) tied to plants, deer repellent products applied with a spray bottle, and protecting certain plants, like my dogwood

(*Cornus* sp.) and young red maple (*Acer rubrum*), with stakes and twine.

On a sunny day last March, my seed exchange orders arrived. Snow was melting and spring was around the corner. I had Ziploc bags spread out on the kitchen table. My wife passed by looking suspiciously at me. I explained that Sarah was helping me bag the seeds for the fridge. Half went into sand and half into wet paper towels, an experiment to see which works better at helping the plants germinate. More scepticism. "I'm like that scientist," I offered. "That guy who cross-bred pea plants." Raising her eyebrows higher, she quipped, "You're comparing yourself to Mendel, the father of modern genetics?" Wisely, I did not respond.

However, I persevered with my cold/moist stratification of the seeds (necessary to break dormancy and help them germinate): large-leaved asters (*Eurybia macrophylla*) and yellow coneflower (*Ratibida pinnata*) for the backyard, and Joe Pye weed (*Eupatorium purpureum*) and swamp milkweed (*Asclepias incarnata*) for the deepest reaches of the yard to attract butterflies. (By the way, I found that the sand and wet paper towel methods work equally well.)

I have not become a native plant gardener to the exclusion of all else. I still like hostas, for their low maintenance and their pretty purple flowers that rocket up in late July. And the Japanese maple looks gorgeous.



*Eastern columbine and an emerging fern*

PHOTOGRAPH BY PETER MOORE

But native plants are becoming a large part of the garden now, as I learn what grows best where. Despite the extra work in weeding some of the more aggressive species and warding off the animals that do real damage, it is satisfying to create a natural environment in the city. If it's not exactly a return to the ecosystems that existed prior to farmland and suburbs, then at least it's a small move in that direction. I'm even learning to be smarter about the deer: I've done a test planting of flowering spurge (*Euphorbia corollata*) which is known to deter Bambi. And my daughter Sarah learns along with me, soaking up plant and bird names and useful information. Believe it or not, one of her favourite books – kept at her bedside – is the invasive species ID booklet. A budding native plant gardener!

*Peter Moore is a project manager in the electricity sector in Ontario. He has been a NANPS member since 2011.*

# A New Beginning for an Old Idea

by Peter Carson

St. Williams Nursery and Ecology Centre is a new business with very deep roots. The nursery is located on the historic site of the St. Williams Forestry Station in Southern Ontario which had its beginnings out of the University of Toronto in 1900. Both entities were established with similar goals: to keep vegetation on the land. The focus of the researchers from the University of Toronto was soil retention and forestry while the present operators are much more concerned about biodiversity and healthy ecosystems.

The St. Williams Forestry Station was the first in Canada and had a long and distinguished history of not just growing trees but also researching methods and processes needed to do so. The nursery produced a huge number of bare root plants, 6,000,000 units a year in the 1990s. They were shipped to farmers and land managers throughout Southern Ontario. In 1996, the Ontario Government privatized the nursery. It was retooled and expanded to produce plug stock for replanting of areas harvested by the Canadian lumber industry. The capacity of the new company,

AquaNorth, ramped up to 60,000,000 trees per year by using automation and the most up-to-date growing methods. Unfortunately, market challenges forced the bankruptcy of AquaNorth which was reborn as ForestCare. ForestCare continued with the forestry plug business but at the same time returned to bare root production to satisfy a more local market.

The most recent chapter in the nursery's history has been a partnership between ForestCare and Pterophylla (one of Ontario's first native plant nurseries) to form a new company, St. Williams Nursery & Ecology Centre. ForestCare, with its greenhouse, field and warehouse capacity and Pterophylla, with years of experience in the growing of native plants, have created one of the largest native plant nurseries in Ontario and even Canada. The product line has been expanded to hundreds of species, all grown from source-identified seed, most of which is collected by St. Williams Nursery staff. Keeping with the history of the site, many trees and shrubs are available in the spring as bare root. However, to allow planting to be done through a greater part of the year, the nursery is now producing

a large quantity of potted stock in various sizes: one, two, three, five or seven gallons (pots from 4.5 to 22.7 litres in size). In addition to extensive bare root and container production, the company grows a large variety of species as plugs and seed which are particularly suited to ecological restoration projects.

Although the production of plants has been the common theme on the nursery site since its inception, the methods have changed greatly. In the early days, seeding was done out in the fields in nursery beds. The seedlings would be lifted after a year of growth and then culled and graded before being replanted into growing beds; this afforded the young trees more room to grow. The young trees would be lifted, graded, culled and replanted several times until they reached saleable size, at which point they would not be replanted but packaged and held in coolers until shipped. Shipping needed to be completed before the plant came out of dormancy (breaking bud) to make sure the seedling had the best chance of success after planting. This method of seedling production gives a great product but limits the time that the plants are available for planting.

This practice required the seed beds to be protected from harsh environments. To provide some of the protection, white cedar (*Thuja occidentalis*) hedge rows were established throughout the growing areas. The hedge rows divided the fields into relatively small parcels which were ideal for the task at hand, but today these hedges are over 4 metres (13 feet) wide and are reducing the production area of the fields. Over the next few years these hedges will be trimmed back to a serviceable size to allow more space for growing.

Bare root product has a place in the market today. St. Williams still does large volumes of this type of stock but the move in the industry has been to container production and the nursery has been a leader in this. The



PHOTOGRAPH BY PETER CARSON

*Tree Seedlings in Greenhouse*

techniques developed to grow 60,000,000 plants, mainly conifers, have been adapted to produce a full range of plant materials from grasses to trees, deciduous as well as coniferous. Most seeding is done into reusable plastic seedling trays which have been designed to stimulate a dense fine root growth. The young plants are moved out of these trays before space limitation

compromises growth and they can be sold as plugs, moved into pots or planted to outside growing fields. Because the plugs are basically undisturbed during a move, this format allows planting to be done during most of the growing season. Any plants that are still in seedling trays in the fall are pulled and frozen



Wildflower seed rows

for winter storage.

This flow of plant material allows St. Williams to provide quality plant products throughout a greater part of the year which in turn gives their customers more planting options on their job sites. What may set St. Williams apart from other growers of native plant materials is that they adhere to the Ontario Ministry of Natural Resources Seed Zones for Ontario and pay particular attention to source-identified

seeds for most of their products. They go as far as collecting or growing a great deal of their own seed which allows them to grow from the best of the trees and plants in our landscape. Quality plants come from quality seed which comes from quality plants!

The owners and staff of St. Williams Nursery & Ecology Centre are dedicated to working with their customers to provide them with the high quality products they need to make their

businesses and projects a functioning success.... and to get the best out of the plants. Unfortunately, they are not in a position to offer a retail outlet but, in order to accommodate some walk-in trade, they host two public sales a year, one in the spring and one in the fall. Check [www.stwilliamsnursery.com](http://www.stwilliamsnursery.com) for dates.

St. Williams Nursery believes that using native species in our gardens and replacing exotic species throughout our landscape is a powerful step towards protecting and strengthening biodiversity.

*Peter J. Carson is a former SWNEC employee. Learn more about St. Williams Nursery & Ecology Centre at [www.stwilliamsnursery.com](http://www.stwilliamsnursery.com).*

PHOTOGRAPH BY PETER CARSON



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## New & Noted

### *In the Footsteps of the Group of Seven*

By Jim and Sue Waddington  
Goose Lane Editions and Art Gallery of  
Sudbury, www.artsudbury.org, 2013  
ISBN: 978-0-86492-908-2 (bound)  
Hard cover, 255 pages, \$55 CDN  
(\$34.48 online)  
www.orange frazer.com

After I finished this book, a mystery remained. No, not the ever-compelling question around Tom Thomson's death. I wondered why no one had ever produced a book like this before. At the very least, it is a fun "Can you spot the difference?" game.

At its best, it is a love note and a thank you letter to the Group of Seven and a travelogue for our spectacular Canadian wilderness.

Jim and Sue Waddington, born a generation after the Group of Seven artists, spent 36 years researching the locations where Canada's iconic landscape painters painted in the early years of the 20th century. The Waddingtons became detectives, gathering clues during their camping trips and art gallery visits, interviewing curators, family members and fellow art enthusiasts, and pouring over Google Earth.

It is worth knowing that World War I forms the backdrop for the story of the Group of Seven. In the foreword to this book, Tom Stuart, the author of numerous books on Canadian art, makes this point well: "The shadow that lies across many paintings by Thomson and his artistic brethren is cast by trench warfare in Belgium and France and its devastating impact on the generation of men and women who were the Group's cohorts. In the

tension from the paradox of beauty and terror, the Group and Thomson found fertile territory to create abiding images of a nation scarred by war yet moving forward, wounded, traumatized, (but) resolved to present itself to the world with a new paradigm of hope and prosperity". The work continues to influence today, drawing the viewer into a world

of natural beauty, a world where nature is the master designer, a world that is essentially Canadian and, remarkably, much unchanged.

Over 70 paintings and sketches are reproduced in the book and each has

a beautifully photographed picture of the location today. The Waddingtons have done a fantastic job of matching the paintings to the present reality. Not all locations were found, however; sometimes trees have grown too tall or the surrounding area has changed too much to make definitive matches. Each painting has an accompanying story that touches on the artist's life, his successes and struggles. One of my favourites is *Raising the Rock*. Franklin Carmichael sat and painted from a huge boulder that overlooks Grace Lake in the La Cloche Mountains. The Waddingtons located the rock and photographed their daughter perched on it in 1995. When they returned in 2001, they were dismayed to find the rock missing. In 2006, they and some friends undertook a ground search for the rock and found it 20 metres (65 feet) down the cliff. In 2007, along with six others, they climbed down the cliff and successfully raised the 100 kilogram (200 pound) boulder to its rightful place.

I would like to raise my glass to Jim and Sue Waddington for their dogged determination, their beautiful photographs and their passion for both the Group of Seven and Canada's native landscapes.

*Review by Joanne Fallowfield*  
Joanne is a NANPS volunteer and former board member.



### *How to Raise Monarch Butterflies: A Step-by-Step Guide for Kids*

By Carol Pasternak  
Firefly Books Ltd., Buffalo, New York  
and Richmond Hill, Ontario, 2012  
ISBN-13: 978-1-77085-001-9 (bound)  
ISBN-13: 978-1-77085002-6  
(paperback)  
Paperback is 48 pages, \$8.95 CDN

Whether you are planning to raise Monarch butterflies or just want to learn a bit more about their life cycle, this little book – based on the author's experiences and knowledge gained from many years of raising Monarchs – provides a wealth of information and tells a lovely story too. I can't think of a better way to spend quality time with children and help fill the nature poverty gap experienced by so many of our kids.

Stunning photographs of the lifecycle stages of the butterfly accompany clear, easy-to-follow instructions. Most of the photos were taken by the author or her partner, Audrey Kouyoumdjian. The equipment required to support the Monarch's development can be easily acquired; in most households a good rummage through the closets would provide everything needed except the butterflies and milkweeds (*Asclepias* spp.).

I "test-drove" this book with my three grandsons (ages 11, 9 and 5) who received it with great enthusiasm even though it was late in the season when we got started. But we have great plans for 2014; we've already started

gathering up containers! We have a good crop of milkweed species around our farm so we tried looking for eggs or caterpillars, but the Monarchs in the neighbourhood were already fattening up on goldenrod (*Solidago* spp.) and other nectar-rich native plants on their long trip south.

Although some of the writing may



be a bit advanced for smaller children, adults can help as needed. A great resource for adults and kids alike, it teaches about the life cycle, habitat and food needs of Monarchs as well as providing interesting facts about other butterfly species. A great holiday gift for all ages!

Review by Sue Stephenson  
Sue is a former NANPS board member.

## Calendar of Events

### January 17 & 18, 2014

2014 SCIENCE, PRACTICE AND ART OF RESTORING NATIVE ECOSYSTEMS CONFERENCE  
East Lansing, Michigan  
The theme of this conference, organized by Wild Ones, is Field- and Place-based Conservation – Applying Techniques that Work at the Community Level. Visit [www.wildones.org/events/2014-science-practice-art-of-restoring-native-ecosystems-conference](http://www.wildones.org/events/2014-science-practice-art-of-restoring-native-ecosystems-conference).

### January 26, 2014

18<sup>TH</sup> ANNUAL TOWARD HARMONY WITH NATURE CONFERENCE  
Oshkosh, Wisconsin  
Presented by Wild Ones. Details at [www.wildones.org/events/18th-annual-toward-harmony-with-nature-conference-native-plants-and-natural-landscapes](http://www.wildones.org/events/18th-annual-toward-harmony-with-nature-conference-native-plants-and-natural-landscapes).

### February 20 & 21, 2014

LAND & WATER SUMMIT 2014: DROUGHT AS AN OPPORTUNITY FOR CHANGE  
Albuquerque, New Mexico  
Presented by the Xeriscape Council of New Mexico. Visit [www.xeriscapenm.com](http://www.xeriscapenm.com) for registration info.

### May 15-18, 2014

GROWING NATIVE: 34<sup>TH</sup> ANNUAL FLORIDA NATIVE PLANT SOCIETY CONFERENCE  
Fort Myers, Florida  
This conference will be held at Florida Gulf Coast University, known as “Florida’s Environmental University”. Visit [www.fnps.org/conference](http://www.fnps.org/conference) for more information.

See page 3 for NANPS Events.

*“To be inspired by and to create parks and gardens out of the beauty and composition of our native landscape is a much higher accomplishment than to form a garden with varieties of plants that have no intimate association with each other or with us and which at best become mere patchwork influenced by the curious and scientific mind.”*

Jens Jensen Siftings 1939-

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# Wind Turbine Project Stopped at Ostrander Point...for now

by Irene Fedun and Sheila McKay Kuja

One could argue that it was ultimately the Blanding's turtle that saved Ostrander Point Crown Land Block, a richly diverse wilderness in the heart of the South Shore Important Bird Area in Prince Edward County, Ontario. However, the migratory birds, butterflies and bats that pass through or inhabit the area, and the delicate alvar community plants growing there, will benefit equally from the decision by an Environmental Review Tribunal last July to reverse the decision of the Ontario Ministry of the Environment (MOE) and thus prohibit the construction of nine 135-metre wind turbines.

Gilead Power had received approval from the MOE to build their 40-storey tall turbine generators but an appeal brought forward by the Prince Edward County Field Naturalists forced a six-month environmental hearing on the issue and finally led to this huge win: this is the first time an approval has been overturned in Ontario on environmental grounds.

The Naturalists argued that 19 Species at Risk, particularly the Threatened Blanding's turtle and eastern whip-poor-will, would be seriously and irreversibly harmed by the destruction of habitat through road-building, construction of turbine pads, digging of trenches for buried cables and continuous servicing of the turbines. The hydrologically sensitive alvars would also be adversely affected by these disturbances. Siting wind turbines at Ostrander Point would violate 11 federal guidelines as well as the Ontario Ministry of Natural Resources' Significant Wildlife Habitat

Technical Guide which states that migratory stopover areas should be preserved in their entirety within five kilometres (three miles) of the shores of the lower Great Lakes.



*Southern yellow lady's-slipper*

The area is home to a Provincially Significant Wetland and is part of a candidate Ontario Area of Natural and Scientific Interest (a natural area with the highest value for conservation, scientific study and education). Nearby Prince Edward Point is an International Monarch Butterfly Reserve and the bird observatory there bands more birds during migration than the well-known Point Pelee on Lake Erie.

Ostrander Point has two major alvar plant communities: eastern red cedar (*Juniperus virginiana*) and prickly ash (*Zanthoxylum americanum*) gravelly

alvar, and bur oak (*Quercus macrocarpa*) and prickly ash savanna. Both are globally imperiled. Ostrander Point is home to some of the province's largest populations of

*Houstonia canadensis* (Canadian summer bluets or longleaf bluets) plus other uncommon plants with colourful names: Crawe's sedge (*Carex crawei*), compressed spike-rush (*Eleocharis compressa*), sheathed dropseed (*Sporobolus vaginiflorus*), tufted hair grass (*Deschampsia caespitosa*), clammy hedge-hyssop (*Gratiola neglecta*) and the much rarer Quarterman's hedge-hyssop (*Gratiola quartermaniae*), soapberry (*Shepherdia canadensis*), umbellate sedge (*Carex umbellata*), Seneca snakeroot (*Polygala senega*), wiry panicgrass (*Panicum flexile*), narrowleaf vervain (*Verbena simplex*), false pennyroyal (*Isanthus brachiatus*), frost aster (*Symphyotrichum pilosum*) and others. Quarterman's hedge-hyssop was only described as a new species in 2007.

It is most common in limestone cedar glades in middle Tennessee and northern Alabama and then disjunct to the alvars of southeastern Ontario, mainly on the Napanee limestone plain and in Prince Edward County.

In spring, the lovely white cuckoo-flower (*Cardamine pratensis*) is abundant in some of the ash swamps. Sartwell's sedge (*Carex sartwellii*), a species adapted to ephemeral ponds, is present here but uncommon in the county outside the alvar region of the south shore. This distinctive tall sedge has clusters of spikelets in a head at the top of individual stems attached to

PHOTOGRAPH BY STEPHEN JOHNSON

a creeping rhizome. In the bur oak savanna, golden Alexanders (*Zizia aurea*) flower near orange-fruit horse-gentians (*Triosteum aurantiacum*), members of the honeysuckle family that are unusually abundant here. Wild geraniums (*Geranium maculatum*) and wild blue phlox (*Phlox divaricata*) abound. Wet meadows can yield large clumps of small southern yellow lady's-slippers (*Cypripedium parviflorum* var. *makasin*), numerous nodding ladies'-tresses (*Spiranthes cernua*) as well as striking displays of white camas (*Zigadenus elegans* ssp. *glaucus*).

A profound thank you to the naturalists and biologists who gave so much of their time, personal funds and expertise to protect such a delicate and beautiful landscape. If you would like to contribute to paying the outstanding court costs of the naturalist club involved in the fight to save Ostrander Point please contact [www.SaveOstranderPoint.org](http://www.SaveOstranderPoint.org). They have raised over \$110,000 but require at least another \$50,000 – and it isn't over yet. Both the MOE and Gilead Power have appealed the Tribunal's decision and the naturalists have entered a cross-appeal. The Superior Court hearings are set to begin in January 2014.

*Irene Fedun is the editor of The Blazing Star. Sheila McKay Kuja received her Masters of Science in Taxonomy from the Botany Department of the University of Toronto.*

### Lessons Learned

“Edge areas are the most surprising and exciting parts of the garden. Since they support the widest variety of plants, I believe they support the widest variety of insects. Plants that thrive in edge areas tend to be generalists.”

*Vicki Beard, native plant gardener, Guelph, Ontario*

botanists say intergrades characteristics of both species. The striking similarities (but vague differences) in autumn-flowering gentians such as these are also echoed in poems such as Ralph Waldo Emerson's *To Ellen, at the South* in the line “to the gentian in the fall.”

On close inspection, the stems of soapwort gentian are smooth (termed glabrous) while the stems of coastal plain gentian are covered in fine, short hairs (termed puberulent). The latter's flowers are deep blue to purple and they are chasmogamous (open) unlike the commonly known closed gentian (*G. andrewsii*). In coastal plain gentian, flowers occur in clusters of as many as seven on each stem tip. Like many other purple-flowered gentians, *G. catesbaei* blooms late, usually early to mid-October to November.

Particularly in the pocosin habitat, *G. catesbaei* encounters fire. Pocosins and Carolina bays have no connection to active streams and so all water comes to them from rainfall. In times of drought, the dried organic matter is flammable. Fires are essential in maintaining open habitat for herbaceous plants like gentians since in the absence of fire, pocosins and Carolina bays eventually become thickets of ericaceous shrubs with canopies of pond pine (*Pinus serotina*) and Atlantic white cedar (*Chamaecyparis thyoides*).

Today coastal plain gentian is considered to be rare throughout its range. Much of the apparent rarity is due to habitat loss. Many pocosins have been converted to agriculture or

have been radically altered from peat harvesting, while Carolina bays and other bog habitats have been tiled and drained either for agriculture or



*Coastal plain gentian*

PHOTOGRAPH BY STEPHEN JOHNSON

mosquito control. Of course, both habitat types have been smothered by urban and suburban sprawl.

In our garden, we are growing two coastal plain gentians purchased from Plant Delights Nursery in 2012. To grow this USDA Zone 6-7 gentian in Zone 5a Iowa successfully presents, as you might expect, a couple of challenges. First, in winter, low temperatures must be constantly monitored and plants brought inside when outside temps reach lows of 23F (-5C). During droughts, the plants should be watered at least once a day but we have done it twice daily when temperatures reached the mid-90s Fahrenheit (35C) and Midwestern humidity dropped to Phoenix, Arizona levels. If you are willing to accommodate the plant's preferences, then you may be able to enjoy the autumn floral show of this storied species.

*Stephen Johnson is collecting plants either observed by or named for early plant explorers. Mary Stark is interested in the journals of plant explorers as well as how plants are presented in American literature.*

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