

The Blazing Star



NEWSLETTER OF THE NORTH AMERICAN NATIVE PLANT SOCIETY

Native Plant to Know

Honey-locust

Gleditsia tricanthos

by Lorraine Brown

By late May in Grey County, deciduous trees are pretty well leafed out. All, that is, except the honey-locusts (*Gleditsia tricanthos*). My century farmhouse north of Owen Sound is surrounded by big, old honey-locusts. Over the years, I've gotten to know and appreciate these Carolinian trees. And a few times, I've cursed them.

Honey-locusts keep their leaves tightly closed until early June when the trees burst into bloom. The flowers are small and greenish white – not showy at all. Plus, they're some 30 to 40 metres (100 to 130 feet) over our heads. But we know the trees are blooming because the air is redolent with the sweet, spicy scent of their flowers, and buzzing with thousands of happy, pollinating honey bees. A few days later, the blossoms drop, coating lawns, walkways and decks.

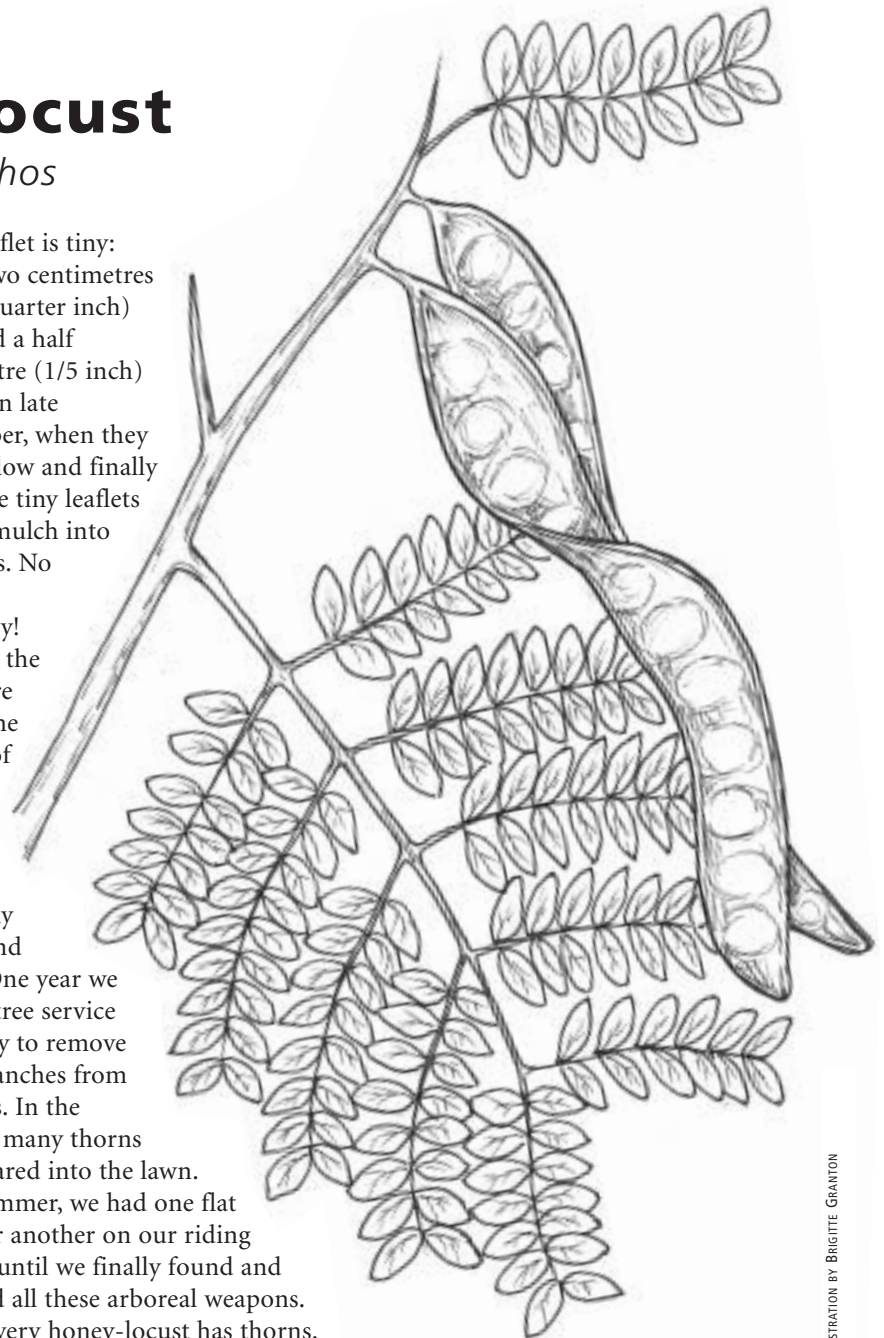
The honey-locust's habit of leafing out late means the gardens around the house get their fill of spring sunshine. Even in mid-summer, the dainty leaves create light, dappled shade – a feature that has made this species a favourite with city foresters and landscape architects.

The leaves of honey-locusts are one of their nicest features. They are reminiscent of mimosa leaves, compound and doubly compound.

Each leaflet is tiny: about two centimetres (three-quarter inch) long and a half centimetre (1/5 inch) across. In late November, when they turn yellow and finally drop, the tiny leaflets simply mulch into the grass. No raking necessary!

While the leaves are lovely, the thorns of the honey-locust are devilishly tough and sharp. One year we hired a tree service company to remove dead branches from the trees. In the process, many thorns disappeared into the lawn. That summer, we had one flat tire after another on our riding mower, until we finally found and removed all these arboreal weapons.

Not every honey-locust has thorns. Only female trees – at least, those that



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The *Blazing Star* is . . .

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Presidents' Message

Our goal: greener cities. So how "green" is this green? Sustainable changes must be integrated into the entire fabric of urban life. Viable ecosystems are essential, yet many municipalities still fail to recognize native plant habitats as an acceptable alternative to lawns and exotic plant species.

When we get it right, we all win. If cities succeed in creating healthier environments, indigenous flora and fauna will be part of that solution. Increased tree canopy and green roofs, for example, provide cleaner air and expanded habitat for songbirds and pollinators while reducing energy demand.

Douglas W. Tallamy in *Bringing Nature Home: How Native Plants Sustain Wildlife in Our Gardens* is hopeful and helpful. He lays out the essential why and how of indigenous plantings in our increasingly urbanized world. Both gardeners and city planners play an important role in this. Our cities, although fraented, provide opportunities to restore the quantity and diversity of indigenous species so critical to biodiversity.

Pollinator Guelph is a dedicated group making a difference. Volunteers and private donors are developing Pollinator Park, a 45-hectare preserve "to be one of the first and largest pollinator initiatives ... and provide a model for citizens and communities" (www.pollinationguelph.ca).

The individual citizen is no less important since she or he can bring attention to local problems and offer solutions. One of NANPS' directors, Greg Hagan, encouraged NANPS to adopt Charlie Clifford Memorial Park in Markham, Ontario. As a child growing and playing, Greg remembers this large riverside park as "awesome", a pristine woodland filled with indigenous species. Now he is dismayed to see invasives ravaging the area. His passion to preserve and restore native plants has inspired others to help him protect Charlie Clifford Park.

Let's all make a difference. Here are some suggestions:

Plant native species to make food and habitat available to bugs and wildlife.

Gradually replace non-native exotics with local native plants.

Showcase your yard / project as an inviting alternative to lawn and wasted space. Encourage plant nurseries to replace their exotic - and often invasive - plants with local native species.

Learn to identify invasive species in open or public areas. Organize their removal or, at least, limit their spreading.

Read ***Bringing Nature Home*** by Douglas Tallamy.

Join us on October 3rd for **NANPS AGM** 12:00 p.m. - 4:00 p.m. when we will again celebrate all of us who are making a difference. Meet recipients of NANPS Native Plant Garden Awards, Volunteer of the Year Award and Paul McGaw Memorial Conservation Awards. NANPS upcoming events include another Speakers' Series, a fall excursion and workshop, and our 25th Silver Anniversary in 2010.

We don't thank those who regularly make things happen often enough. A special thanks to our web master, Regan Pestl of Typhoon IT, for creating the new plant sale ordering system, Lindsay McMartin for her online research, Heather Hilliard for rewriting much of the website info, Stacey Shannon and Alice Kong for chairing another successful Plant Sale, Howard Mead and Ruth Zaugg for organizing our always popular Seedex, Greg Hagen for his amazingly popular seed combos, Carol Howlett for tackling bylaw updates, Janet Harrison and Charles Iscove for writing and getting the Local Scoop out to our members (if you are not receiving the Scoop send your email to email@nanps.org ... you'll be glad you did!) and Karen Boniface for accepting the challenge of our website committee. There is so much that goes on in a volunteer organization behind the scenes. If we have forgotten to mention you here, please accept our apologies and be assured that we applaud your dedication and appreciate the difference you are making.

Miriam Henriques and Harold Smith

Don't Dig It on the Bruce!

by Judy Larkin

Don't dig it! Enjoy it! Leave it for future generations to enjoy! Buy it from a grower! These are common mantras at Earthbound Gardens in Red Bay, Ontario – on the Bruce Peninsula. John Close, Brenda Sutherland and I, co-owners of Earthbound, felt compelled to create an awareness campaign that discourages gardeners from digging from the wild.

Summer on the Bruce Peninsula attracts thousands of visitors to diverse habitats on its fragile coasts. The Bruce Trail, national and provincial parks, fens, alvars and numerous nature preserves offer many opportunities to observe and enjoy flora and fauna specific to the Peninsula. The Bruce Peninsula is home to some of the largest populations of endangered plant species in Canada. The delicate ecosystems cannot sustain constant raids or trampling, and people's shoes or boots often have alien weed seeds



stuck to them that then contaminate the area. Roadside raiding not only affects the survival rates of plants but also decreases food sources and habitat for the birds, insects and other wildlife that depend upon the plants.

We can't tell you how many times we have carried plants out to a customer's car only to find roadside-raided orchids and native species in the trunk! "Our little piece of paradise is home to 44 species of orchids, 16 goldenrods (*Solidago* spp.), and three



Dwarf lake iris (Iris lacustris) is found in fairly large colonies on the west side of the Bruce Peninsula, leading many to believe that this delicate, diminutive plant is common and available for "transplanting" from the wild into gardens.

fleabanes (*Erigeron* spp.), just to name a few, many of which are found only here and cannot survive in any other areas in the world," states Brenda.

"Believe us when we say that if certain orchids here could be propagated and guaranteed success in average gardens, the industry would have snapped them up already and had them for sale!"

Bruce Peninsula and Manitoulin Island are home to the largest populations of ram's head lady slippers (*Cypripedium arietinum*) in Ontario. Every spring the Friends of Bruce District Parks host The Bruce Peninsula Orchid Festival held at the Parks Canada Visitor's Centre in Tobermory (www.orchidfest.ca). Workshops, guest speakers and tour guides inform and encourage the preservation (and discourage the pilfering) of some of the most spectacular stands of orchids found in Canada.

"We treasure our very sensitive environments," says John. "That's what prompted us to start the DON'T DIG IT program." This awareness campaign is a response to the devastation of natural habitat we are

witnessing on the Bruce Peninsula – in particular – and throughout the province. With friends Tom Ashman and Dee Cherry at Rural Rootz Gardens in Wiarton, we have designed a logo and sticker to remind people to leave wild plants in the wild and buy their native plants from reputable

growers. We hope that these stickers will spread the message that digging wild flowers is not an environmentally sustainable practice and that preserving our natural habitats is crucial to the survival of many endangered species.

We are distributing these awareness stickers through schools, naturalists' groups, horticultural societies and garden clubs, parks and tourism organizations. As widely as we can! And, as resources allow, we are developing a series of supporting materials.

To learn more about our DON'T DIG IT program, make a donation or purchase stickers, please contact us at earthbound@bmts.com.

Judy Larkin and her colleagues have created a monarch butterfly conservancy waystation at Earthbound Gardens. Judy, John Close and Brenda Sutherland are members of the Bruce Peninsula Bird Observatory and Bruce Peninsula Environmental Group and supporters of the Bruce Trail Hiking Association. To learn more about their garden centre and programs visit www.earthboundgardens.com.

PHOTOGRAPH COURTESY EARTHBOUND GARDENS

Macphail Woods

by Gary Schneider

In a province better known for Anne of Green Gables and potatoes, the beauty of native plants is finally starting to capture public attention. Prince Edward Island is a highly disturbed ecosystem, resulting from the long history of European settlement and the perils associated with intensive agriculture. The few remnants of old growth Acadian forest are mere specks in the broader forest patchwork of old fields that have grown up in white spruce (*Picea glauca*), young hardwood stands springing up after clearcuts, and conifer plantations.

Yet it is clear things are changing. There is renewed interest in native plants, whether for reforestation, park restoration, watershed rehabilitation, schoolyard naturalization or landscaping. One of the forces driving that renewed interest is the Macphail Woods Ecological Forestry Project, located in Orwell.

In 1991, the Environmental Coalition of Prince Edward Island (ECO-PEI) established the Macphail Woods project on a historic property in the southeastern part of the province. Macphail Woods was born out of frustration with government policies that encouraged poor forestry practices and the dearth of biologically sound silvicultural treatments being carried out in the province. The project was meant to set a good example for forest management and to inspire others to help with the restoration of the Acadian forest – recognized as one of six endangered forests in North America by the World Wildlife Fund – which remains under threat from land use practices in the region.

Our native forest is dominated by long-lived, shade-tolerant trees such as sugar maple (*Acer saccharum*), American beech (*Fagus grandifolia*), yellow birch (*Betula alleghaniensis*), eastern hemlock (*Tsuga canadensis*), eastern white pine (*Pinus strobus*) and



PHOTOGRAPH COURTESY MACPHAIL WOODS

Ironwood (Ostrya virginiana) seed clusters resemble those of hop vines, giving rise to one of its common names, hop hornbeam.

red spruce (*Picea rubens*). There are another 20 species of trees and over 50 species of shrubs in the mix. Though little of it is left, the original forest is rich in diversity – one of the things the project is trying to restore.

Like most of PEI, the 56-hectare (140-acre) Sir Andrew Macphail Homestead is a mix of forest types: recent clearcuts, old fields grown up in white spruce and young hardwood stands. Fortunately, a small riparian area along the Orwell River contains large specimens of eastern hemlock, eastern white pine, yellow birch and red maple (*Acer rubrum*), providing visitors a stunning example of a healthy forest.

The project was modestly envisioned as a small native plant nursery, a trail or two, and some demonstrations of forest restoration. Today, that vision has blossomed into a full-blown forest education centre that includes school tours, a summer children's program, three nature trails, an arboretum and the Macphail

Woods Nature Centre. The project has won numerous local and national awards, including the Gold Medal Award in Restoration and Rehabilitation from *Canadian Geographic* in 2004.

While the silvicultural demonstrations and the environmental education programs are important components of the Macphail Woods project, the real strength is our love of native plants. The nursery has grown to almost 1.5 hectares (four acres), with a wide mix of trees, shrubs, ferns and wildflowers, while the arboretum proudly displays a large variety of Acadian forest species.

Witch hazel (*Hamamelis virginiana*) provides a clear example of what we have been able to accomplish. When the project began, this shrub was extremely rare and never planted in restoration work. It was hard to find enough seeds to get a start in the nursery. Since then, we have grown thousands of witch hazel; we use them

in almost all our plantings. It is inspiring when landowners come to the nursery to buy these plants for their own properties. In this way, we've enabled the public to participate in restoring an important native species. The success has come from letting the beauty of the plant speak for itself. Where once we would simply talk about the rareness of witch hazel, now our native plant landscaping slide show highlights its beauty. That has been the key – Macphail Woods staff have fallen in love with these plants. As with many other species, we now collect seed from our own plants and we're often able to provide witch hazel seed to landowners at no charge.

This story will be repeated again and again with the other rare plants we are trying to bring back. Ironwood (*Ostrya virginiana*), hobblebush (*Viburnum lantanoides*), bog birch (*Betula pumila*), round-leaved dogwood (*Cornus rugosa*), hairy sweet cicely (*Osmorhiza claytonii*) and many more are lovely natives with excellent landscaping potential. This potential is another key part of the Macphail Woods project.

We recognized early on that we would not be able to attend to all the properties that would benefit from forest restoration in the province. So we developed a series of workshops and walks – on everything from native plant landscaping to plant identification to pruning – to encourage others to take on the task. More importantly, we have been able to create seed sources for rare plants throughout the province (through our successful plantings), seed sources that had long ago been eradicated from those areas. In the case of witch hazel, many of the plants we sell are already producing seed, so witch hazels can start to fan out almost immediately into the surrounding habitat.

As you might expect, staff and volunteers spend a great deal of time roaming the woods, looking for high-quality native plant seed sources. Since we sell to the general public and carry

out plantings in a variety of habitats, we grow both common and rare Island species. White spruce is unnaturally common in the province, being an aggressive colonizer of abandoned fields. Yet it makes an excellent windbreak tree and so we grow it for

recent years. ECO-PEI has an agreement with the provincial government to look after management of 800 hectares (2,000 acres) of public forest land. Under the lease agreement, ECO-PEI has assumed management responsibility for 26 forested



PHOTOGRAPH COURTESY MACPHAIL WOODS

The suede-like buds of hobblebush (Viburnum lantanoides) are interesting at all times of the year, but especially in the spring when they swell before releasing the growing leaves.

that purpose. On the other side of the coin, our provincial tree, red oak (*Quercus rubra*), is so hard to find that we use it at every opportunity.

Working with the public on restoration has shown that it doesn't have to be difficult. As a culture, we worry too much about getting things right, instead of getting things done. With a small staff that has no degrees in any related subject, we have developed successful forest restoration methods and plant propagation techniques. Sometimes it's just a matter of collecting the seed, cleaning it, planting it in a nursery bed and then waiting to see what happens.

An exciting development has moved the Macphail Woods project and the idea of using native plants for restoration to a whole new plateau in

properties near the Macphail Homestead. The lands will be used to demonstrate sustainable forest management and restoration of our native Acadian woodlands. We are committed to improving the health of these forests while at the same time showing the true values of the resource. Thinking of the forest as a bank account, we will be removing less than the "interest" that grows each year. We are presently developing ecological management plans and getting our woodland operations certified under the Forest Stewardship Council. These plans, and more information on the project, are posted on our web site (www.macphailwoods.org) as we develop them.

In recognition of the long-term

nature of forest restoration and management, the agreement is open to renewal after the initial 10-year term if conditions have been met. These conditions are what we think every forest manager should strive for: the forests will contain more wood each year and tree quality will be improved through careful pruning. We are committed to using only native plants in all our restoration work and will be planting 200 specimens of our rarest plants each year. In addition, we will look to add value – both timber and non-timber – that we harvest from the forest.

This initiative is still in the early stages – getting to know the properties, writing management plans, taking photographs, documenting past work and searching out fundraising opportunities. We have planted over 4,000 native trees and shrubs and have started restructuring some of the woodlands away from exotics and back towards native species. While many of the properties have either been previously farmed or clearcut, some of the less-disturbed areas are full of large eastern hemlock, sugar maple and yellow birch, with a diverse mix of smaller plants from the pink lady's slipper (*Cypripedium acaule*), our provincial flower, to rattlesnake fern (*Botrychium lanceolatum*). We have some wonderful areas to work with and the possibility of doing good things on these properties has sparked the interest of many volunteers.

Part of this effort in public forest management will involve encouraging Islanders to recognize all the services a



PHOTOGRAPH COURTESY MACPHAIL WOODS

The native plant nursery is an integral part of the Macphail Woods project. Myrna Melanson, a long-time employee, waters some newly transplanted native trees.

woodland provides that make it invaluable: storing carbon, cleaning air and water, providing wildlife habitat and offering places for recreation. From an economic standpoint, a forest can provide certified wood products and high-end crafts to niche markets. We recently purchased a bandsaw mill and our long-term vision includes a woodworking shop where talented Island craftspeople can create high-quality wooden products from sustainably harvested wood. In effect, these craftspeople will become part of our team of forest educators.

In these times of economic uncertainty, it is even more important that we become stewards of the land. While forests are infinitely precious for all that they contribute to the

environment, if handled with care, over the long term they can be a source of employment and income. It is not an easy task to turn around hundreds of years of poor forestry practices, but, with patience and determination, it can be done. At Macphail Woods, the goal of ecological sustainability frames all our forest practices, while our love of native plants directs how we assist in this rehabilitation.

Gary Schneider is the founder and supervisor of the Macphail Woods project. For more information on the project's ecological forestry and native plants, visit www.macphailwoods.org.



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TRCA's Terrestrial Natural Heritage System Strategy

by *Lionel Normand*

In January 2007, Gerri Lynn O'Connor, Chair of the Toronto and Region Conservation Authority (TRCA) Board, counted the number of hands raised around the room in favour of approving the TRCA's brand new Terrestrial Natural Heritage System Strategy. The TRCA Board is made up of municipal politicians; 19 members were in attendance and 19 hands went up.

In the Strategy, TRCA expressed its vision for "a sustainable natural system that is accessible to and valued by the region's residents as a foundation for the health and ecological integrity of the Toronto region, making it 'The Living City'." (TRCA 2007) The Strategy hinges on the mapping of the distribution of species in the TRCA's nine watersheds and on the predictive modeling of their response to urbanization. The premise behind the mapping is this: species do not suddenly become rare or abundant, rather they move along on a gradient of abundance-to-rarity and along a gradient of resilience-to-sensitivity. As landscapes change, species become less common or more abundant gradually; therefore it is important to track species populations long before their numbers are low.

Species distribution in the landscape can reveal their sensitivities (or resilience). TRCA staff collected field data on the distribution of all flora and fauna species in all nine TRCA watersheds. Of the 1,111 flora and fauna species known to the TRCA's watersheds, 693 have been found to be intolerant of urbanization; although only a few are actually rare, all are sensitive in some way to urbanization. Natural areas in developed regions are almost always surrounded by too much disturbance and are too small to provide refuge for species assemblages. For example, the TRCA mapping shows that the likelihood of finding wild leek (*Allium tricoccum*) in the Toronto city limits is very low. Trilliums (*Trillium* spp.) are

scattered in a few urban forests, but zigzag goldenrods (*Solidago flexicaulis*) are rather plentiful. Could it be that zigzag goldenrod, white trillium and wild leek, none of which are rare in the Greater Toronto Area (GTA), are each progressively more vulnerable to being picked by humans?

The mapping is a powerful new tool for forecasting the future of the GTA's natural wealth in light of trends in landscape change. Staff combined the species data with digital mapping of all habitat patches in the TRCA watersheds to develop a model for predicting the probability of finding the 693 species. The important dynamic to understand here is not how sensitive each individual species is but what the likelihood is of finding the many species together as part of a natural community. And that is dependent on the landscape. Where

Salamander be there too? What will be the assemblage of species throughout the natural system should a watershed be urbanized?

It is those thresholds of landscape and habitat patch character and species distribution that led staff to propose to increase the natural cover in the TRCA's nine watersheds from 25% to 30% of the total surface, in preparation for the plans for urbanization of the watersheds. The planning practice of the day, often focused on rare and "significant" things rather than landscape health, would have diminished the natural system and allowed the reduction of the species distribution. Thus the "abundance" approach, species mapping and natural system modeling provides a rationale for the increase. The proposed target system (reference map) in the Strategy "provides the



Staff training day: peatland community

will you find leek, trillium and goldenrod together? Will the Eastern Wood Pewee, squirrel corn (*Dicentra canadensis*), puffballs (*Lycoperdales*), Woodland Jumping Mouse, American Toad, woodland sunflower (*Helianthus divaricatus*), Barred Owl, fringed polygala (*P. paucifolia*), and Spotted

space needed for plant and animal species to assemble and evolve as natural communities." (TRCA, 2007)

The benefits of the Strategy will extend beyond sustaining a good distribution of 1,111 species.

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PHOTOGRAPH COURTESY TRCA

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Conservation Authorities and municipal staff, watershed councils and academics involved in the Strategy development understand the link between the loss of species and the loss of ecosystem services (air quality, climate regulation, water management and natural aesthetics) and quality of life. In his review of the Strategy, Bob Johnson, Curator of Reptiles and Amphibians at the Toronto Zoo, sounded his confidence in the TRCA approach by stating that “*the conservation message we tried to express through species at risk, we should have been conveying through common species*”. Marsh marigolds (*Caltha palustris*), blue flag (*Iris versicolor*), water parsnip (*Sium suave*) and skunk cabbage (*Symplocarpus foetidus*) are not rare? Good, let’s keep it that way; it means that there are abundant marshes, swamps and seeps for water cycling and flood retention. Red-shouldered Hawks are no longer considered at risk in Ontario? Let’s protect them in abundance so that we may all benefit from the air quality and groundwater infiltration that their forest habitats provide. Trembling aspen (*Populus tremuloides*) groves take time to prepare the ground for the red oak (*Quercus rubra*) forests where sharp-lobed hepatica (*H. acutiloba*), pointed-leaved tick trefoil (*Desmodium glutinosum*) and maple-leaved viburnum (*V. acerifolium*) thrive. As planners of healthy human communities we need to understand the current value of non-rare colonial species that set the stage for future long-lived climax trees that then store more and more carbon and help

regulate climate.

All who had contributed for years to the development of the methodologies, data collection, models, writing and consultation of the Strategy saw the Board approval as an important step toward achieving a sustainable Living City Region. But it is just that, a beginning; it provides the direction for TRCA staff to promote the implementation of the Strategy in all TRCA business, including talking with municipalities about its integration into their healthy community design, land use planning and land acquisition programs. Our conversations are part of a natural next step because the Regional Municipalities of Peel, York and Durham, City of Toronto and area municipalities had contributed to the funding and review of the Strategy. Municipalities such as Markham and Vaughan are integrating the Strategy into their official plan review.

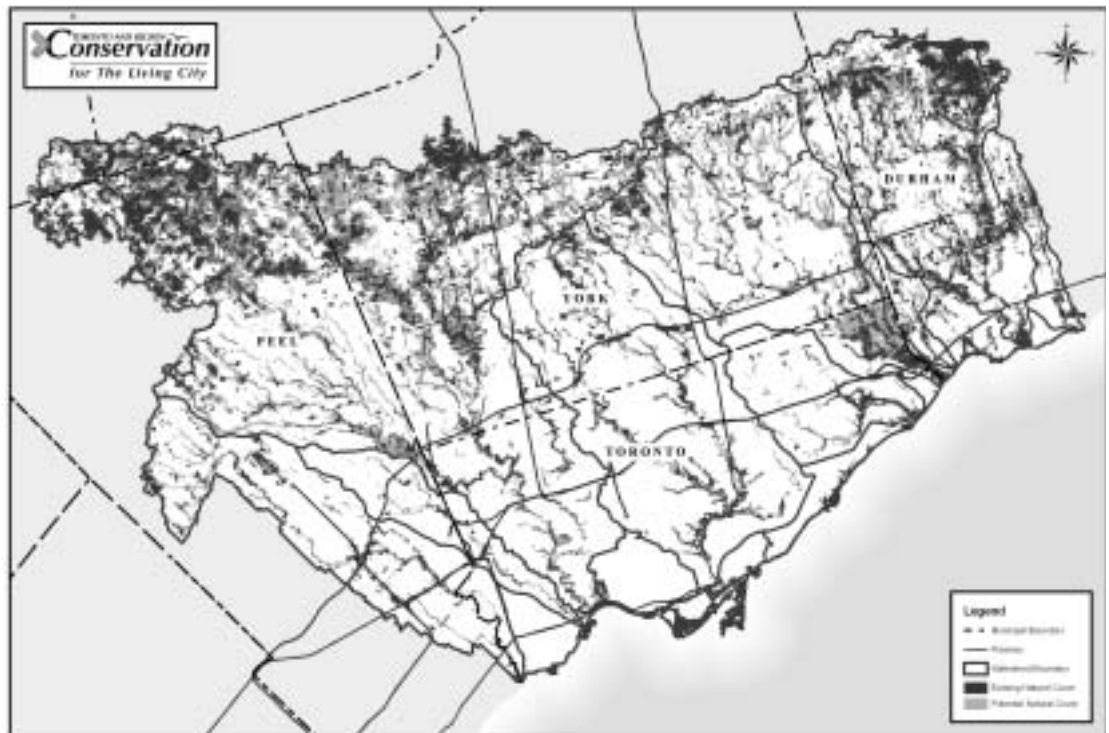
As part of the Strategy implementation, TRCA is continuing to build its capacity to make wise decisions regarding increasing and caring for the natural system. With funding from the Salamander



PHOTOGRAPH COURTESY TRCA

Polygala paucifolia (fringed polygala)

Foundation, we are now developing a methodology for the recovery of species and vegetation communities within the expanded land base of the target system that is currently not forest, wetland or native meadows. Looking at soils and topography, the entire land base is analyzed to determine what species and vegetation types can be regenerated where. Looking at the current distribution of species and vegetation types is helping to determine what should be regenerated where. TRCA is accustomed to forging such research partnerships with private foundations; many had supported the development of the Strategy including the J.P. Bickell, Richard Ivey, McLaughlin, Schad, Salamander and Unilever Foundations.



The TRCA team is researching the effect roads have on natural systems as part of the Ontario Road Ecology Group. We have also entered into a partnership with the University of Toronto on a Trail Ecology Study. Another methodology is being developed for the regional management of invasive species. TRCA has also teamed up with municipalities on urban forest studies to document the structure and function of trees in developed areas and jointly formulate recommendations for planting and maintaining trees in urban communities. In order to see if all of this is working, TRCA has developed a long-term monitoring program using fixed plots across its watersheds. The protocol is in part borrowed from Environment Canada's former Ecological Monitoring and Assessment Network program.

Through collaboration, the development of the TRCA approach and Strategy was successful. With a team of contributors and supporters we are working hard to make its implementation equally successful.

Lionel Normand has been a Terrestrial Biologist at TRCA since 1993. He holds a Masters in Environmental Studies from York University, and sits on the Board of the Ontario Land Trust Alliance.

LEAF Training Sessions

Are you interested in learning more about Toronto's native trees and shrubs? Come to a free Urban Forest Orientation session put on by Local Enhancement and Appreciation of Forests (LEAF), a non-profit organization dedicated to the protection and improvement of the urban forest. These sessions provide an overview of what's happening with the urban forest in Toronto, and how you can get involved. Check www.leafontario.org/events for upcoming sessions.

For more in-depth learning, try LEAF's Tree Tenders Training courses, which include 15 hours of training over four days. Learn from LEAF's certified arborists and City staff about proper tree planting techniques, how to identify trees, how to recognize the stresses they face, as well as information about our native trees and shrubs. Visit www.leafontario.org/tree-tenders-volunteer-training for more information.

LEAF also offers a subsidized Backyard Tree Planting program for people living in Toronto, Markham, Vaughan and Richmond Hill. A pilot project is slated for this fall in the Cambridge/Kitchener/Waterloo/Guelph area which will focus on partnerships with retail stores.

Toronto Tree Tours is a great way for residents to get acquainted with different kinds of trees and learn to appreciate the many gems so often overlooked as we hurry about our busy lives.

LEAF's website also offers a wealth of resources including accessible programs that will introduce you to the fascinating world of urban forestry and arboriculture. Visit www.leafontario.org.

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Designing with Nature in Mind: What I have learned

by Richard J. Ehrenberg

In the fall of 1993, Richard Ehrenberg purchased a property in the university town of Whitewater, Wisconsin, which he would name Green Gables. Over the years, he has worked to transform the lawns into natural landscapes, growing native plants and working in harmony with Nature. When asked what he has learned from the experience he gave the following response.

I learned that I would do it again, in spite of all the effort and work involved. The great variety of flowers, leaves, seed pods, and fruit, as they appear throughout the growing season, and the overall meshing together of herbaceous perennials with the different shrub forms and sculptured tree configurations – the visual richness of this view is worth every effort. It is experienced each and every day whether opening the blinds in the morning to greet the new day, or while taking the last stroll of the day in the yard. The unique smell on a spring day of moist leaves on the ground gives one a sense of living in a real forest environment. Even in winter, when all is frozen and dormant, the structural features are enhanced by a backdrop of white snow and gray sky.

My landscape has become an integral part of my life – who can say that of an acre of lawn?

I learned that creating a natural landscape is more difficult than following the traditional approach. A yard full of native plantings requires work – pulling and cutting vines, dead branches, dead flower and grass stems, excessive shrub and tree growth, the perennial appearance of exotics, and even pruning for aesthetic and functional considerations. However, unlike a manicured lawn, this work need not be done on a weekly basis. Some things are more important than others and, if the doing of others is delayed, nothing is seriously damaged. I found that these maintenance demands can fit into one's busy lifestyle. I recognize that while this was

an ethic that grew on me, this might not be true for everyone.

As is the case in most architectural efforts, I recognized that the more complex the design, the more knowledge and effort will be required in the execution. Because Green Gables includes two separate forest environments, a prairie garden, a planting of sumac for shade, a traditional flower/vegetable garden, and a pre-existing property line planting of non-native spruces, a lot of insight was needed into how to blend the various habitat characteristics.

Maintenance of the ecotones was a give-and-take adventure as the plant communities matured.

If homeowners do not have knowledge of native plants it is best to start small or hire a professional to create a long-term plan. Begin by learning about the native plants in your area, by attending workshops, by reading books and catalogs from nurseries specializing in natives, and by searching the Internet. Expand your knowledge each year, and adjust your plans as you acquire more insight.

I learned maintenance shortcuts, which not only saved time and energy, but recycled plant materials as nature intended. Pruned twigs and branches do not have to be collected and hauled away to a city composting site. When cutting down two- to four-foot-tall (.6 - 1.2 metres) Russian mulberry trees (*Morus alba*), which perennially appear, I use a hand pruner to cut the plants into six- to 12-inch (15-30 centimetre) pieces, which are then scattered onto the ground for natural processes to recycle them. By cutting branches, twigs, and herbaceous stems into smaller sections, I found they visually disappear in the existing leaf litter. The plant materials actually add to the valuable ground layer of mulch.

Larger dead tree limbs can be cut into four- to six-foot (1.2-1.8 metre) lengths or even longer, and artistically placed in the woodland, helping to enhance the forest ambience. Fallen trees can be trimmed, draped with Virginia creeper (*Parthenocissus quinquefolia*) or native clematis (*Clematis* spp.), and left in place to add interest. Snags (standing dead trees) can be trimmed for appearance, but left to stand for woodpeckers to create nesting sites, or used for attaching bird houses. And, of course, firewood can be harvested from one's own yard.



PHOTOGRAPH BY RICHARD EHREMBERG

In a small residential yard, prairie plants require burning or cutting once a year, for the sake of appearance. Large prairie plantings require a different and more involved burn regimen.

If cutting is the only option, one can avoid hauling the cuttings to a city compost site by building a compost pile, or reducing the high grasses and forbs into three- to six-inch (seven-15 centimetre) cuts, as I suggested with tree and shrub cuttings. A “weedwhacker” or a hedge trimmer can be used to do this, and the pieces can be allowed to lie on the ground and decompose. My attempt to use a brush hog and a lawnmower did not work. The forbs bent over, and the mower deck held them down below the rotating blade, leaving a path of folded-down, uncut stems.

I learned that nature continually provides surprises, which are awesome. Some are sudden, others evolve over time. The 25 or so woodland violets (*Viola* spp.) existing on the property at the outset have spread. Now, from March into June, thousands of plants produce masses of blue and white blooms. A large cluster of elderberry (*Sambucus* spp.) shrubs has evolved over a period of five years. They provide a visual screen along with white flowers and dark blue berries for the birds. Volunteer native wildflowers continue to appear in scattered patterns. A white walnut tree (*Juglans cinerea*) volunteered from who-knows-where, and shares its space with a volunteer black walnut (*Juglans nigra*). Hackberry trees (*Celtis occidentalis*) have volunteered from bird droppings.

Wildlife abounds, with new creatures appearing over the years. A female groundhog established residence for many years and raised her young in our backyard. The large hole and soil mound were totally

hidden by prairie plants. Mostly the groundhogs ate violets. Rabbits and chipmunks appear each day. Shrews race across paths occasionally. We see squirrels jumping from tree to tree as they move around the yard. Up to 14 were feeding at cobs of corn put out for them this past winter. Varieties of birds crisscross the air corridors between trees. Fireflies were an exciting surprise a few years after the prairie garden was established. Turkeys occasionally inspect the leaf litter in the forest areas.

I learned that lots of plants can grow in small areas. Prairie enthusiasts know that many species can grow together in small prairie gardens. This is also true in forest settings. No shaping of plants is required. Their natural search for sunlight forces plants to intermingle and fill space available. Some species do well in shady space, others prefer bright sun while still others accept partial shade to full sun. Plants adjust to their environment. A black walnut tree, which can have a spread of more than

45 feet (14 metres) in an open space, can grow two to three feet (.6 to one metre) from another tree, and will adjust accordingly.

I learned to be more confident that natural landscaping is justified. There are so many positive aspects, which were largely theoretical before I actually did it and participated and lived in it. It is environmentally sound. It's sustainable without lots of fuel, fertilizer and pesticides. It affords use of plants in a practical manner for both shade and sunny areas. And not the least important is the aesthetic value of natural beauty that is revealed as seasons change.

Richard Ehrenberg is a landscape architect, graduate of the University of Wisconsin, student of Darrell Morrison, a natural landscaper who, for the past 30 years has worked exclusively with native plants. The original of this article was the final one of a series of seven that appeared in the Wild Ones Journal (www.for-wild.org) during 2008 and 2009. Reprinted with permission.

Calendar of Events

August 21-23, 2009

22ND ANNUAL WOMEN'S HERBAL CONFERENCE
Monadnock Region, New Hampshire
To request a brochure from Sage Mountain Retreat Center and Native Plant Preserve call 802-479-9825 or e-mail sage@sagemountain.com.

September 15-18, 2009

36TH ANNUAL NATURAL AREAS CONFERENCE
Vancouver, Washington
Website: www.naturalarea.org
Contact NAA2009@dnr.wa.gov or (360) 902-1032.

September 17, 2009

GROWING MARKHAM'S URBAN FOREST ONE YARD AT A TIME
Markham, Ontario
This workshop will be held from 7 - 9pm at Thornhill Library, 7755 Bayview Avenue.

September 21-22, 2009

17TH ANNUAL NORTH AMERICAN WEED MANAGEMENT ASSOCIATION CONFERENCE AND TRADE SHOW: RESPONSE TO RIPARIAN INVASION
Kearney, Washington
Web: www.NAWMA.org. Contact Kristi Paul at kossweed@gpcom.net.

October 3, 2009

NANPS ANNUAL GENERAL MEETING
Markham Civic Centre,
101 Town Centre Blvd.,
Markham, Ontario

October 16-17, 2009

WILD ONES 2009 CONFERENCE: MAKE YOUR YARD AN ENCHANTING PLACE WITH NATURAL LANDSCAPING AND NATIVE PLANTS
Milwaukee, Wisconsin
Wild Ones conference will be held in conjunction with their annual general meeting, fourth quarterly national board meeting and third strategy planning meeting at Cardinal Stritch University. Visit www.for-wild.org for details.

October 18, 2009

NANPS NATURE WALKS
Trees & Fungi: Friends or Foes?
11am and 1:30pm. Reservations accepted starting October 5th.

Continued from page 1

produce fruit – are armed. But with honey-locusts, gender is a complex issue. The species is monoecious, with male and female flowers on the same tree. But individual branches can be male or female. Stick a male branch in the ground, and you'll get a thornless



clone. Thornless cultivars abound. Only the wild, naturally-growing honey-locusts are thorny, and only the thorny trees produce fruit.

In *Trees of the Carolinian Forest*, Gerry Waldron speculates that honey-locusts evolved their defensive armour to ward off Pleistocene megafauna. With the demise of the great herbivores, the trees gradually started to lose their thorns, which, Waldron points out, must exact a great cost from the tree to produce.

Honey-locusts produce copious quantities of long, spiral pods that are green at first, then turn dark brown in autumn. Most of them fall to the ground and become a popular food item with squirrels, chipmunks, rabbits and deer. It's the sweet flesh of the pods that give this tree its common name. Some have described the pod as tasting like a combination of castor oil and honey.

In the late fall and winter, honey-locusts make me think of the trees you might find while walking with Ichabod Crane through Sleepy Hollow. Their zigzag branches, dark scaly bark (almost black when wet), and dense clusters of sharp spines up

to 10 centimetres (four inches) long, give the trees a spooky look.

Thornless varieties of honey-locusts are widely planted as shade trees in urban and suburban landscapes. These popular trees transplant easily, grow quickly and are tolerant of a wide variety of conditions, as long as they get full sun.

Many of the old farmsteads in northern Grey County are surrounded by honey-locusts. In the wild, this species is limited to extreme southwestern Ontario. Why are they gracing farmsteads and springing up in hedgerows and along the roads up here? The story goes that around the 1880s, when this area was settled, an itinerant pedlar of rootstock sold honey-locusts to farmers, promising that the trees' abundant thorns would make a great fence to keep livestock out of the yard. They may have done that, but they also grew into towering giants, impressive shade trees for the properties they now surround!

Lorraine Brown is a biologist and museum exhibit planner. She is currently replacing mowed lawn with Ontario tallgrass prairie.

NANPS 25th Anniversary

The silver anniversary of the North American Native Plant Society is just around the corner. We have special events planned throughout 2010, and to kick it all off we are producing an expanded special edition of *The Blazing Star*. Fundraising for these activities is underway with applications to foundations and corporations. We are also appealing to you, our valued members, to donate what you can to the cause.

Over the past 25 years NANPS has worked hard to protect native plants in the wild, restore vibrant ecosystems and ensure that gardeners are not only free to plant their own patch of wilderness in their yard but that they are encouraged to do so. There is still much work to be done... and we are up to the task. But let's take some time to celebrate our achievements and champion our goals.

Help us make 2010 special by sending your donation, large or small, to the North American Native Plant Society, PO Box 84, Station D, Etobicoke, ON M9A 4X1.

Thank you!

JOIN NANPS

Your donations and membership dollars help NANPS to study, conserve, cultivate and restore North America's native flora. Members receive our quarterly newsletter, the *Blazing Star*, and are eligible for NANPS-sponsored excursions and the Seed Exchange. NANPS is a registered charitable organization (no. 130720824 RR0001) founded in 1984. **Donations to the Society are tax-creditable in Canada. Tax receipts will be issued for donations of \$20 or more.**

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___ \$60 / 3 years (___ send me a free issue of *Wildflower* as a bonus for my 3-year membership)

___ \$200 Sustaining Membership (includes a Canadian tax credit for \$100 and a 5-year membership)

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Please make cheque payable to the NANPS and mail to Box 84, Station D, Etobicoke, Ontario M9A 4X1. For info, call (416) 631-4438; e-mail nanps@nanps.org.