



the
Bluestem
Banner

Winter 2007

Tallgrass Ontario

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To achieve the identification, conservation, management and restoration of tallgrass prairie, savanna and related ecological communities in Ontario

Tallgrass Ontario thanks:

The Ontario Trillium Foundation
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Photo Cathy Quinlan

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Tallgrass Habitat Feature

The De Grassi Point Oak-Pine Savanna - Conrad E. Heidenreich

The De Grassi oak savanna is located at De Grassi Point, on the west side of Cook Bay, Innisfil Township, Simcoe County. It now consists of two blocks, about 1.5 ha and 9 ha respectively. These remnants, formerly part of a much larger savanna, are situated within 132 hectares of mixed forest. In the 1820s, local surveyors Richard Birdsall and George and Samuel Launt judged the original area of the savanna to be 19 hectares. They described it as “A fine bold shoreland. Oak plains all grown over by grasses.” In fact, the name for the area at that time was “Grasses Point” until a real estate company purchased it in 1889 and “gentrified” the name to De Grassi Point.

Since then, cottage, road and lawn development combined with the introduction of species such as white pine and poplar has served to fragment and invade the grassland. What remains of the savanna is now entirely in the second Concession – though the original extent can still be seen through the distribution of the massive red oaks that used to dominate it.



Ministry of Natural Resources Fire Program Staff mop up after a prescribed burn of the De Grassi oak savanna. Photo: Conrad Heidenreich

In the 18th century, but probably much earlier, a Mississauga encampment and extensive corn fields occupied “Grasses Point”. During their travels to, and from, Penetanguishene in 1763, Lieutenant Governor Simcoe and his party visited the Mississauga and their headman, Canise. On this trip, Simcoe’s cartographer, Robert Pilkington, recorded the presence of the “Oak-Land,” most likely maintained by the Mississauga through seasonal burning. After the aboriginal occupation ended in the 1820s, various farmers kept the savanna open as a rough cattle pasture. In 1890, Sir Edmund Walker purchased the property containing the savanna remnants (to this day, Walker’s descendents retain ownership). For the next century – until 1938 – the open areas were utilized as sheep pastures.

From then on, until the late 1950s, Jim Oxford, the caretaker of the property, made an effort maintain part of the grassland by regularly clipping the invading seedlings. Unfortunately, after the mid-century, the savanna declined to the point where, by the 1990s, only about 1.7 hectares remained.

The savanna remnant sits on a drumlinized, boulder studded, coarse textured till that was inundated by glacial Lake Algonquin and subsequently heavily eroded by the waters when the lake receded. The soils over the area are moderately well drained sands and sandy loams. The macro vegetation along the edge of the savannas consists of scattered red oaks (*Quercus rubra*) and white pine (*Pinus strobus*), while a variety of grasses and other non forest species dominate the open areas.

Although this unusual ecosystem was familiar to some members of the Walker family through their botanical studies (E.M. Walker, 1900-40; H.A. Hunter, 1940-70; C.E. Heidenreich, 1959) and those of Prof. J. Soper (1952), it was not until 1972 that botanist, Dr. A.A. Resnick, made a systematic study of the surviving savanna elements. Following his field work, Resnick brought the rarity of this ecosystem directly to the attention of the Walker family and the Ontario Ministry of Natural Resources (MNR) in the hope that the remainder could be saved. In his survey, this savanna remnant contained 17 regionally rare, and three provincially rare species, among them: Little Bluestem (*Schizachyrium scoparium*), Big Bluestem (*Andropogon gerardii*), Indian Grass (*Sorghastrum nutans*), Clinton’s Club-Rush (*Scirpus clintonii*), Handsome Sedge (*Carex formosa*), Richardson’s Sedge (*Carex richardsonii*), Round-headed Bush Clover (*Lespedeza capitata*), Wand-like Bush Clover (*Lespedeza intermedia*), Long-leaved-blues (*Houstonia longifolia*), Sky Blue Aster (*Aster oolentangiensis*) and Robin’s Plantain (*Erigeron pulchellus*).

This type of red oak, white pine savanna is notable as it is the only one of its kind remaining in Simcoe County. It is an unusual ecosystem, probably with a limited distribution since it has not been described by the Ontario conservation data centre (the Natural Heritage Information Centre) or the American (Nature Serve). It seems to be typically associated with sand dunes, such as those that are found at Long Point and Wasaga Beach. When Reznicek returned in 1982 with Dr. P.F. Maycock, not only had nothing been done about saving the savanna remnant, they found a tennis court had been built (in 1973) on a central portion of it.



Big Bluestem at the De Grassi oak savanna.
Photo: Conrad Heidenreich

The first catalyst for change seems to have come from an article by Lorraine Brown, "A Garden of Rarities, Ontario's Prairie Heritage"¹ in which she pointed out that the De Grassi savanna was about to disappear. The MNR also brought about a growing awareness of the area following a vegetation inventory by W. Bakowsky (1993), which stated that something had to be done to save it. After this, the MNR contacted the owners to see if, in addition to a previously arranged woodland improvement contract, they would cooperate by engaging in a series of regular controlled burns to rehabilitate and extend the savanna remnant.

Following a Life Science Area of Natural Scientific Interest (ANSI) designation for the remaining grassland², MNR staff met with the Walkers who agreed to manage 11 hectares of the original grassland with fire. By this time, pine, poplar, shrubs and poison ivy had invaded. Further burns were held in 1999, 2001 and 2005 and will likely continue in the future.

The burning objectives are to: restore much of the original oak-pine savanna vegetation by increasing the abundance of the prairie-savanna species that are still present, stimulate the dormant "seed bank" in an attempt to reintroduce species which have not recently been observed, open up the forested sections of the savanna, and

reduce non-native species and to stimulate the red oak growth.

Although no systematic plant survey has been conducted of the burned area, grasses such as Indian Grass, Little and Big Bluestem have spread significantly. The woodland sunflower (*Helianthus decapetalus*), has made its first appearance since the 1940s, and Wild Bergamot (*Monarda fistulosa*), formerly present in small numbers, now proliferates. To date, these impressive results have been marred by the rapid invasion and spread of Poison Ivy (*Rhus radicans*) and an explosion of the horrendous pest, Dog-strangling Vine (*Vincetoxicum nigrum*). Unless a solution can be found to control these two species, the years of work and money spent to save the savanna will be for naught. This is our next challenge.

Conrad E. Heidenreich is Professor Emeritus of Geography at York University where he taught from 1963 to 2001. His interest in botany developed at the U. of T. in classes taught by Dr. James Soper for whom he worked as a field assistant in the late 1950s.

He spent his summers at De Grassi as a youth and now lives there with his wife in retirement.



De Grassi oak savanna, following prescribed burn.
Photo: Conrad Heidenreich

¹ Brown, L. (1993). A Garden of Rarities, Ontario's Prairie Heritage. Seasons. 33(2), 20-6

² Area Id: 10248; Area Id: 1170

News from the Field



North American Prairie Conference - P. Allen Woodliffe

The milestone 20th NAPC was held from July 23-26, 2006 in Nebraska. To get to the event, located in Kearny at the University of Nebraska, we traveled through vast, wide open spaces to arrive at the westernmost part of the tallgrass prairie region. This small town along the Platte River got its origins from the presence of Fort Kearney which was established along the Oregon Trail. Early European settlers followed this trail as they settled the American west. The intimate campus setting, spacious streets and very little traffic created a wonderful venue.

The decidedly western flavour of the town was due, in part, to its location at the extreme western edge of the tallgrass prairie region, where the mixed prairie, Nebraska Sandhills and the Central Loess Hills regions meet. Grasslands in this part of the world, valued for their cattle production, are less likely to have seen the plough compared to the more widely cultivated eastern prairie states. However, with modern irrigation techniques, the western grasslands are being converted to corn and soy.

Three Ontario prairie enthusiasts were part of the approximately 265 attendees at this conference. This year focused was on invasive species, though aspects of Restoration and Management, Prairie Zoology, Prairie Education, Landscape Ecology, Entomology and Soils and Wetlands were also included. An interesting poster session augmented the proceedings. The Tallgrass Ontario booth received significant attention. However, overall, there were fewer than usual organizational displays.

The field trip – always a highlight – focused on grassland management issues pertaining to ranching and dealing with the aggressive invasives. We also had the opportunity to see the relatively undeveloped grasslands of the loess hills and the efforts of the Prairie Plains Resource Institute to protect and restore Nebraska's native grasslands. Always on the lookout for wildflowers, we found that few showy species were obvious at this time of year due to our westerly location. This particular week was also incredibly hot - it exceeded 38°C [100°F] on a couple of days – and the extensive drought conditions of the previous weeks did little to help. Nevertheless, we were able to observe some wildflowers in good to excellent condition. These included Snow-on-the-mountain, Prickly Poppy, Ten-petaled Mentzelia, Tall Thistle, Indian Blanket, Prairie Coreopsis and several sunflower species. We also caught glimpses of the declining Regal Fritillary butterfly, and birds such as the Western Kingbird, Dickcissel, Scissor-tailed Flycatcher, Western Meadowlark, Lark Bunting, Chestnut-collared Longspur. Last but not least, within the midst of a black-tailed prairie dog colony, we spotted over a dozen cooperative Burrowing Owls!

After the conference, some of us toured additional prairie sites within Nebraska. We were able to view many of the aforementioned wildflowers within The Fort Niobrara National Wildlife Refuge. The scenery provided a spectacular backdrop for prairie dogs, free-ranging bison and elk. Our next stop, The Ashfall Fossil Beds State Historic Park, had an



Tall thistle *Cirsium altissimum*. Photo: Allen Woodliffe.

incredible display of prehistoric fossil fauna, as well as natural and restored prairie sites and gardens. We discovered a wonderful outdoor garden of many prairie wildflowers within The Lewis and Clark Interpretive Centre in Sioux City, Iowa. The famous duo first catalogued these species during their explorations of 1804-1806.

Finally, our curiosity led us further east to some of northern Iowa's unploughed black soil prairie sites, such as the Steele Prairie, the Stinson Prairie and one of that state's best – the 240 acre Hayden Prairie. These were still impressive even though they were not burned in 2006, and were subject to the extreme heat and drought. We noted Rattlesnake Master, Hoary Vervain, Wild Quinine, Purple Prairie Clover, White Prairie Clover, Purple Coneflower, Gray-headed Coneflower, Wild White Indigo, Lead Plant and Prairie Phlox.

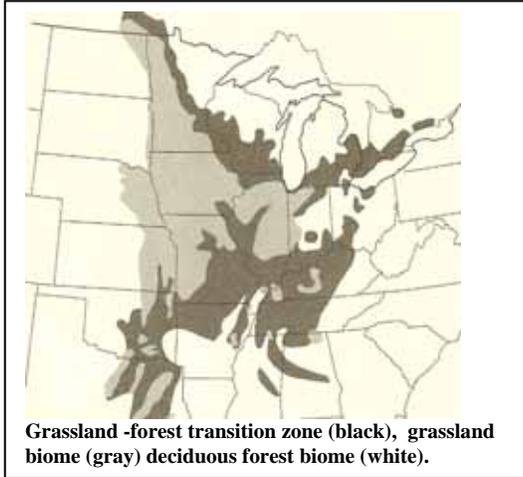


The 21st NACP will be held during summer 2008 in southeastern Minnesota at Winona State University!

Pictures (clockwise): White Prickly Poppy, Argemone albiflora, Ten petaled Mentzelia, Mentzelia decapetala; Pink Bee Plant, Cleome serrulata; Canada Milkvetch, Astragalus canadensis
 Photos: Allen Woodliffe



Tallgrass Habitat Management



Tallgrass: What's in a name? - Graham Buck

One of the challenges we share while conserving tallgrass is to change public, deep-rooted misconceptions about pre-settlement southern Ontario landscapes. The first, persistent, myth we are in the process of debunking is that the region was entirely forested. We now know that the forests gave way, in places, to a variety of habitats including an estimate of one thousand to twenty-five hundred square kilometers of tallgrass communities.¹ These are the communities we for which we are working hard to preserve, restore and raise awareness.

The second misconception is that *tallgrass* does not simply refer to prairie habitats. Unfortunately, the term is a bit of a misnomer because it conjures up images of open, rolling, meadow-like terrain.

In fact, this is only part of the picture – the tallgrass we are

interested in also includes savanna and woodland, two closely associated “relatives” of our better-known prairie. Allow me to elaborate in slightly more technical terms.

Scientists recognize that stretches within Southern Ontario’s Deciduous Forest Biome actually could be better described as transition zone ultimately unites with the western grassland biome (see map). Within this transition, pockets of prairie, savanna and woodland are found. These pockets, in turn, create transition zones at a smaller scale (see image²). Author Jerry Sullivan eloquently describes the variety within this forest-grassland continuum in terms of oak distribution: “Oak trees once grew as lone sentinels out on the prairie. They also grew in open oak savannas, sun dappled oak woodlands and shady oak forests.”³ These wooded communities changed with time and space and they blended into each other.

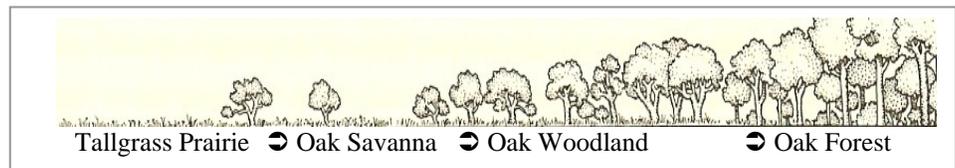
The transition zone contains mixtures of forest and grasslands because the climate is conducive for both. Landscape influences – which include soil, moisture, nutrients, local temperature, solar radiation, humidity, as well as fire frequency and intensity – ultimately determine the type community that will thrive. Since natural communities are rarely discrete, delineated parcels, it is difficult to define where one begins and the next ends. Consequently, when referring to adjacent, related, tallgrass habitats, it is often appropriate to describe them as mosaics of tallgrass. Nevertheless, if one wishes to communicate about landscape specifics, it can be useful to identify the individual pieces of the mosaic as a habitat by type. The three primary types of tallgrass communities are defined below:

Tallgrass Prairie: A nearly treeless (0-4 canopy trees per ha and less than 5% crown cover when trees are mature) climax ecosystem characterized by tall native grasses, wildflowers and shrubs. Usually maintained by frequent, high intensity fires.

Oak Savanna: a type of savanna with scattered oak trees (5- 44 canopy trees per ha and 6-35% crown cover when trees are mature) and maintained by frequent low intensity fires or infrequent high intensity fires. Grasses, grass-like plants (example, sedges) and wildflowers dominate the ground layer; possibly with some areas dominated by shrubs and tree re-sprouts.

Oak Woodland: a transitional ecosystem between savanna and forest maintained by frequent, low intensity fires. Unlike forest, woodland trees tend to be spaced widely with a relatively open canopy (woodland has more than 45 trees per ha and 36-60% crown cover when trees are mature). The groundcover supports a vigorous turf of grasses, grass-like plants and wildflowers.

Tallgrass Ontario is dedicated to the identification, conservation, management and restoration of all three tallgrass habitats – prairie, savanna and woodland – while recognizing there is variation and flux within these. We welcome your insights, questions, discoveries and stories about all three elements of the tallgrass mosaic.



¹ This may be an underestimate of the extent of tallgrass communities because early surveyors did not differentiate between oak woodland and oak forest – the latter of which is not considered to be “tallgrass”.

² Pictures used with permission from: Packard, S. and C. Mutel (eds.) 1997. *The tallgrass restoration handbook for prairies savannas and woodlands*.

³ See Sullivan, Jerry *An Atlas of Biodiversity*, pg 24. Available from www.Chicagowilderness.org or 312-580-2137.

Prairie Is More than Plants - Andrew H. Williams

Rigid-leaved Goldenrod (Solidago rigida) and insects. Photo: Allan Anderson

If our goal is to conserve prairie biodiversity, we would do well to remember that prairie is a biotic community, not simply a plant community. Though we recognize a prairie most easily by its characteristic plant species, plants actually comprise a minority of the life forms present. In any prairie, there is much greater diversity of fauna than there is of flora. I used to resent the weevils feeding on the aster seeds and the baptisia seeds I was collecting to further prairie conservation through restoration plantings. Now, I realize that every prairie plant is a stage on which various, marvelous animal dramas take place every day. The presence of a plant species enriches a given prairie simply by being there, but it contributes far more to biodiversity by supporting a diverse array of animals.

In my research on the various fauna using a single prairie plant, marbleseed, *Onosmodium molle*, I found about 120 different species using this plant in different ways and several that are utterly dependent on it. If you were to lose *O. molle* from your site, you would lose those specialist insects, too. This is not exceptional, but typical. The animals using *O. molle* but not restricted to it would also lose the resources they had found when *O. molle*

was present. In my research on the various fauna overwintering inside or on the outside of the stems of 20 species of prairie plants, I found an average of 15 different species of arthropods using the stems of each of these plant species as a winter refuge. These animals included eggs or early instars, emerging in spring as immatures, and others that overwintered as larvae, pupae or adults, emerging as adults. These included herbivores, detritivores, predators, and many different parasitoids, tiny wasps that develop within the bodies of other insects. Most of these animals are very tiny in contrast to the charismatic megafauna that get most of the prairie conservationists' fond attention, butterflies.

Our knowledge of insects is many decades behind our knowledge of plants. For example, in three timely visits to your prairie remnant, I could produce a list of the plants growing there, a list that would include 95% of the flora at a minimum. This is one way in which I earn my living. But if I were to devote ten years of my time and arrange for help from dozens of insect taxonomists, specialists in various groups, I could not produce a list anywhere near as representative of the fauna on your prairie remnant. Another example of our ignorance of prairie insects is that most of what we know about the insects that require prairie is based on the food plant preferences of herbivores. Many insects are very particular about what plants they use as food. These herbivores are close to the base of the trophic pyramid. We know essentially nothing of the parasitoids high on the trophic pyramid, parasitoids which in some cases have a very narrow range of insect hosts. I urge you to focus more closely on the little animals that contribute so much to making your prairie such a wild, beautiful and fascinating place. If you stand still in your prairie during daylight hours on a windless day, quietly scanning the stems and leaves and flowers nearby, you will usually see many different kinds of insects. Flowers of some plants are especially attractive to insects which may be pursuing nectar, pollen, or both, or they may be waiting among flowers for prey or for the insect host they will parasitize to assure their next generation.

Goldenrods are remarkable in this way, as is the alien wild parsnip, but Virginia mountain-mint is the plant that attracts the most astonishing diversity of insects in my experience. This activity, sorting out various insects using flowers, is something children often enjoy. Perhaps, in this way, I've never grown up. Go out on your prairie at night with a headlamp or flashlight. Most flies, bees, and wasps will no longer be flying, though you'll find them sleeping on leaves and flowers. The sounds of their wings will be gone, but other sounds characterize the night. Crickets and katydids dominate the night symphony in late summer, but there is a great diversity of small voices as well. Stand still and peer closely at the plants around you and you'll probably see many different insects. You'll see more spiders at night than during the day. Warm, humid, windless nights are best. For many insects and spiders, the threat of desiccation and overheating in the windy hot daytime is very real. Many insects lie hidden in the prairie litter during the day but come out to feed at night so you'll see species you've not seen before. Some species only become active late at night, but many are spurred by hunger to forage shortly after dark. Mosquitoes may be out foraging, too.

Andrew Williams is a Fellow at the University of Wisconsin Department of Entomology. He can be reached at awilliam@facstaff.wisc.edu

Tallgrass Habitat Management Regional Updates**

EASTERN TALLGRASS REGION

New Rice Lake Plains Joint Initiative (RLPJI) Funding - Todd Farrell, Nature Conservancy of Canada

The partners of the RLPJI are pleased to announce that the Joint Initiative has been granted additional funding from the Oak Ridges Moraine Foundation through the Foundation's "Caring for the Moraine". The new "Caring for the Moraine in Northumberland County" program will complement the RLPJI's current strategic focus on tallgrass prairie and savanna conservation, stewardship and restoration by also promoting stewardship of woodlands, riparian areas and other priority habitats on the Rice Lake Plains.



A prairie-savanna-woodland mosaic at Alderville First Nation. Photo: Todd Farrell

Amongst other activities, a landowner contact staff person will be hired for the summer to provide free site visits to willing landowners with an interest in habitat conservation projects. The Northumberland County Stewardship Council, Northumberland Land Trust and the Alderville First Nation will be joining the original RLPJI partners to accomplish this work in 2007. The partners are very pleased at the interest shown in collaboration in Northumberland County.

For more information on the Rice Lake Plains Joint Initiative, as well as details of upcoming stakeholder meetings, property tours, and volunteer days contact:

Nature Conservancy of Canada - Central Ontario
18 Second Avenue, Uxbridge, ON L9P 1J9
Tel: 705-749-6604 OR 905-862-2642
www.natureconservancy.ca - "Rice Lake Plains" page

Rice Lake Plains Bird Survey – Todd Farrell, Nature Conservancy of Canada

The Nature Conservancy of Canada, with help from the Oak Ridges Moraine Foundation and the Ontario Ministry of Natural Resources, is leading bird study on the Rice Lake Plains. The primary focus is on grassland birds, with the goal of developing conservation and education projects with RLPJI partners. Watch for more information in future editions of the Savanna Sentinel (our new issue will be out soon), and keep an eye in the fields for the LBJs!

****** To include a 100-200 word update in the Bluestem Banner, please contact your regional coordinators.

Eastern Region (Toronto east to Rice Lake Plains and north to Lake Simcoe):
Todd Farrell, todd.farrell@natureconservancy.ca, 705-749-6604

Central Region (Niagara, Hamilton, Haldimand, Brant, Waterloo, Oxford, and Norfolk):
Bronwen Buck, bronwen.buck@gmail.com, 519-780-1816

Western Region (Middlesex, Elgin, Kent, Essex, Lambton and Huron):
Niki May, cnkmay@sympatico.ca, 519 542 8612

New Feature!

Northumberland County Forest - County of Northumberland

The County of Northumberland is pleased to report that approval was received for the hiring of a youth intern to work on our forest management plan. We welcome Mia Frankl, our new forest information officer! Mia has been helping prepare the forest master plan for presentation to County Council. The County is also looking forward to the spring, when we hope to hold our 2 prescribed burns within County Forest property. Regretfully, these were not implemented in 2006 due to unfavourable conditions. Lastly, we are pleased to continue our role in the Rice Lake Plains Joint Initiative, allowing us to pursue prairie restoration in the County Forest. Keep an eye out for more news in your local County newspapers or check our website: www.northumberland.ca

Successful Burn Restores Peter's Woods Provincial Park Oak Savanna - Susan Grigg, Ontario Parks

On April 20th and 21st, 2006 a total of 13 hectares of black oak and oak-pine savanna within the existing Peter's Woods Provincial Park and the North block of the proposed Burnley-Carmel park addition were burned. This was the first year of prescribed burning in the park. The project was a partnership between the Ministry of Natural Resources (MNR), Ontario Parks and the Nature Conservancy of Canada (NCC), with funding from the Oak Ridges Moraine Foundation. The burn occurred within three separate sites: one woodland, and two prairie sites. This was a low-intensity burn, and all sites burned relatively slowly, with good coverage of the areas targeted. Ontario Parks and NCC monitored the sites this summer to determine the progress of this first burn in restoring the prairie and savanna habitat. The site visits showed that prairie and savanna species were growing, and we had rid it of some of the less desired cool season grasses old-field species. The sites burned this year will not have sufficient fuel load to burn again until 2008, though we anticipate that additional savanna sites within the North Block will be burned in the spring of 2007.

New Prairie for 2007 - Todd Farrell, Nature Conservancy of Canada

NCC recently purchased a 4.5 hectare (11 acre) prairie beside Red Cloud pioneer cemetery, a property that has already been restored to splendour through the dedicated efforts of community volunteers. The new property, once restored, will be an important expansion of the prairie plant communities found in the area, and will provide an unparalleled opportunity for public interpretive activities.

NCC intends to manage and restore tallgrass prairie in a way that supports the ongoing stewardship of the Red Cloud Cemetery prairie. This includes ecological restoration and the development of interpretive material for the NCC site. NCC looks forward to collaborating with the Red Cloud Cemetery Board and the Township of Cramahe in the management of the tallgrass prairie of the area. NCC continues to raise stewardship and associated costs for this project. If you are interested in supporting our work, you can make a donation on-line at www.natureconservancy.ca or by sending a cheque to NCC's Ontario Administrative Centre, 115 Front Street, PO Box 520, Port Rowan, ON N0E 1M0. Please indicate on your cheque/donation page that it is intended for the "Rice Lake Plains".

New Communications Materials for Rice Lake Plains - Laura Mousseau, Nature Conservancy of Canada

The Nature Conservancy of Canada (NCC) and Alderville First Nation (AFN), along with members of the Rice Lake Plains Joint Initiative (RLPJI), officially released prairie and savanna habitat information and restoration guides at an event at the Alderville Community Centre on September 29, 2006.

The launch of the two publications, *A Landowner's Guide to Restoring Central Ontario's Rice Lake Plains Tallgrass Prairie*, 2nd Edition, by the Peterborough Stewardship Council and *To Know This Place*, 2nd Edition by Ruth Clarke, was coupled with the unveiling of new interpretive signs for the Rice Lake Plains area.

The habitat restoration guide published in September by the Peterborough Stewardship Council, in partnership with NCC, was funded in part by the Oak Ridges Moraine Foundation, the driving financial force behind RLPJI. The restoration guide is free to interested landowners and local conservation groups.

To obtain a copy, please contact dana.kleniewski@natureconservancy.ca
(ph: 1-800-465-0029 ext 246).

Ruth Clarke's *To Know This Place* is an extensive guide to the species, stewardship and trails of the AFN's exceptional prairie and savanna site. Copies of *To Know This Place* can be purchased for \$14.95 from Sweetgrass Studios (www.rickbeaver.com).

CENTRAL TALLGRASS REGION

Natural Connections Program Update – Graham Buck, Brant Resource Stewardship Network

The future of tallgrass habitats in the Grand River Plains got a whole lot brighter after the Brant Resource Stewardship Network started the Natural Connections Program in 2004. At one time, the area contained over 25% of Ontario's tallgrass prairie and oak savanna coverage. Today, it is much less than that; but, with over 100 remnants mapped during an exhaustive survey in 2005, opportunity for restoration abounds. Program updates since the last autumn are below.

Environment Canada, National Wild Turkey Federation and private landowners restore oak savanna

The Natural Connections Program used funding for two different sources to hire and train local citizens to correctly identify and remove invasive shrub species from oak savanna remnants. The Environment Canada funding was directed at the Brantford Golf and Country Club. This private golf course is home to the richest savanna in the Grand River Plains. It contains 14 S1-S3 plant species, including the endangered birdsfoot violet (*Viola pedata*). Although the area underwent a prescribed burn in 2001, the volunteers are busy eradicating invasives such as Russian olive, European buckthorn and tartarian honeysuckle that are creeping into the savanna understory.

The National Wild Turkey Federation continued its support tallgrass habitat restoration in the Blue Lake area. Last spring, they contributed \$5,000 to prescribed burns. Blue Lake contains a dozen tallgrass habitats in a close proximity to one another, all of which are on private land. Fortunately, half of these landowners have joined the Natural Connections Program in the past 2 years. The removal of invasive alien species is critical to maintain the health of these unusual habitats and the species which thrive within them. These include bur oak- Hill's oak savanna, white oak-white pine savanna, hairy valerian (*Valerian edulis*, S1) and American columbo (*Frasera caroliniensis*, endangered).

Tufa savanna protected by landowner

In the spring of 2000, Ilse Kraemer and Anthony Goodban discovered a population of False gromwell (*Onosmodium molle*) while exploring a bur oak savanna along the Grand River in Brantford. This was the first observation of this species from Brant County since 1864! The plant, which is characteristically found on limestone savannas, in this case was growing on a rare form of limestone rock called tufa. Tufa is formed when water evaporates from lime-rich waters leaving a hard material called calcite (calcium carbonate) behind. Presumably this area was once a fen (a type of wetland covered by shallow, alkaline, ground water) that eventually dried up.

Finding out about the unique assemblage of rocks, plants and insects on his property struck a chord with landowner Ed Speelziek. Through his generous financial support, Natural Connections Program staff started restoring the bur oak savanna, which was overgrown with European buckthorn and other exotic shrubs. They also planted 1.5 acres of prairie adjacent to the savanna to act as a buffer and create a natural corridor, which would allow for animal movement and plant dispersal.

COA dollars restore oak savannas along Whiteman's Creek

Whiteman's Creek, located in the tobacco belt of western Brant County, has received a lot of attention as a cold water stream that supports unique aquatic species: brook trout and queen snake and several different kinds of mussels. Some of the table lands, valley slopes and sandy floodplains historically supported tallgrass habitats. In places, these habitats still remain and recently have been a new restoration focus. The oak savanna in the area are a unique mix of 25% black oak (*Quercus velutina*), Hill's oak (*Quercus ellipsoidalis*) and white oak (*Quercus alba*) with 75% bur oak (*Quercus macrocarpa*). Small populations of three tallgrass indicators have been found during the field work: stiff goldenrod (*Solidago rigida*) early buttercup (*Ranunculus fascicularis*), and slender wheatgrass (*Elymus trachycaulus*). The Brant Rod and Gun Club (BRGC) and Natural Connections Program are working together to enhance tallgrass habitats along Whiteman's creek. Work has been funded by Canada-Ontario Agreement (COA) and NWTF. In the spring, a three acre little bluestem prairie was planted at the BRGC club house. This fall and winter, oak savanna restoration was initiated on the club property as well as a neighbouring property.



Dogbane beetle on prairie cinquefoil at the Brantford Golf and Country Club. Photo Credit: Graham Buck

WESTERN TALLGRASS REGION

A Fall Walk on the Ojibway Tallgrass Prairie - *Betty Learmouth, Essex Field Naturalists*

Twenty-one people joined Paul Pratt, Ojibway Park's Chief Naturalist, for a walk in the Ojibway Prairie Provincial Nature Reserve on October 8, 2006. The walk was one of the activities during the Fall Colour Festival which included children's crafts, a scavenger hunt, a snake location demonstration, food, displays and more.

During the walk over to the Provincial Prairie, the group paused to learn more about its history. Paul told us his first visit to the prairie was in 1970, when only about 125 acres were protected. In contrast, today nearly 1,000 acres of natural heritage are protected. The Ojibway Prairie Complex is large enough that it protects thousands of plants which, in turn, protect over 3,000 species of insects. Species new to science have been discovered on the prairie, including a recent discovery of a new fly species. [Prairie is more than plants: *editor*].

Upon arriving at a sign announcing the repatriation of the Massasauga Rattlesnake into the Ojibway Prairie, Paul stopped to discuss this recent event. The only population of Massasauga left in the southwestern corner of Ontario lives in, and around, the Ojibway Prairie. We hope that the prairie complex will offer a refuge for the continued existence of this critically endangered species.

This is the thirtieth year that Paul has lead walks on the prairie. Thank you, Paul, for sharing your knowledge of this special place.

Dennis Rupert Prairie Reserve - *Nikki May, Sarnia Urban Wildlife Committee*

This 8 hectare wet prairie was acquired in the '90s at the urging of Art Teasell, and with the help of the Nature Conservancy of Canada, the Shell Environmental Fund, the Rocca family and the City of Sarnia. Currently, the Sarnia Urban Wildlife Committee are managing the area and compiling a management plan. It was first highlighted as a special place by Dennis Rupert, a long-time Sarnia naturalist who identified the rare Sullivant's milkweed (*Asclepias sullivantii*) and Riddell's goldenrod (*Solidago ridellii*) on the property. Recently, monitoring has been initiated to determine the effects of prescribed burning on the prairie including the rare plant populations. It also seems, so far, that forbs are declining as woody shrubs invading some areas. In other locations, purple loosestrife has invaded where firebreaks have disturbed the soil – though monitoring results are inconclusive. All these issues will be taken into consideration when planning future burns.

Howard Watson Nature Trail - *Nikki May and Dorothy Tiedje, Lambton Wildlife Incorporated*



Fringed Puccoon (*Lithospermum incisum*)
Photo credit: Graham Buck

The 30 metre wide rail-trail and buffer at the north end of Sarnia was designated a public walking trail in the late '90s. Lambton Wildlife Incorporated works with the City of Sarnia to manage natural habitat along it. We've noted that sections of the trail have interesting prairie habitat and species. The section west of Modeland Road has extensive areas where Big Bluestem (*Andropogon gerardii*) dominates. Butterfly Weed (*Asclepias tuberosa*), Flowering Spurge (*Euphorbia corrolata*) and Stiff Goldenrod (*Solidago rigida*) are also scattered along this trail, despite continued "hijacking" of the Butterfly Weed. There are also nice big patch of Porcupine Grass (*Stipa spartea*), Prairie Willow (*Salix humilis*), and hopefully, still some Hoary Vervain (*Verbena stricta*). East of Modeland Road, there are some outstanding stretches of prairie that include Big and

Little Bluestem (*Schizachyrium scoparium*), Plains Puccoon (*Lithospermum caroliniense*), Fringed Puccoon (*Lithospermum incisum*), Indian Grass (*Sorghastrum nutans*) and a patch of Wild Lupines (*Lupinus perennis*). There are also more significant patches of Butterfly Weed, Porcupine Grass, Flowering Spurge, Green Milkweed (*Asclepias viridiflora*), Yellow Pimpernel (*Taenidia integerrima*), New Jersey Tea (*Ceanothus americanus*), Wild Yam (*Dioscorea quaternata*), Black Oak (*Quercus velutina*), and Fragrant Sumac (*Rhus aromatica*) are also found in this stretch which has been named the 'Blackwell Prairie'.

Tallgrass Ontario News

Christine Elliot Retires from Tallgrass Ontario - Cathy Quinlan

For over four years, Christine Elliot was the voice of Tallgrass Ontario. As our Program Manager, she answered our calls and emails, produced our newsletter, kept the books, wrote funding proposals, organized board meetings and every little thing in between. She has recently retired from Tallgrass Ontario and turned over the reins to Graham Buck.

Christine caught the prairie bug several years ago after she retired from a career with London Life and joined the Friends of Sharon Creek, a community group south of London. Christine and the Friends undertook a large tallgrass prairie planting project within the Sharon Creek Conservation Area. The plugs, seeds, soil, and fire sparked her interest and Christine joined Tallgrass Ontario and started attending meetings.



Christine Elliot at the Pauline Johnson National Historic Site Tallgrass Prairie. Photo: Rob Wallis.

When Don Gordon, our first Project Manager, left, he suggested we ask Christine to undertake the job, as he saw her potential and the fire in her eyes. Though she'd never worked in the natural heritage field, she knew a great deal about getting things done, planning and budgeting. She's also extremely quick, so she picked up ecology in no time.

Christine worked with Tallgrass Ontario through many interesting projects including all the versions of the *Save Our Savannas* inventory work, the publishing of many great Bluestem Banners, our involvement with the Tallgrass display at the ROM, our great success at the Plowing Match in Glencoe, three provincial forums

and many, many more. She sought out new funding avenues, liaised with foundations and government agencies and kept Tallgrass Ontario in the black the entire time.

Christine has stepped down to pursue other interests. She is working towards a horticulture diploma at Ridgetown College, combining her love of plants and business. I know she'll do extremely well in whatever direction she chooses. The sky's the limit. The Board thanks Christine for her years of support, leadership and contribution to Tallgrass Ontario.

Attention Tallgrass Ontario Members!

All 2006 Tallgrass Ontario paid members are eligible to attend the annual general meeting. The meeting is on Friday March 23rd. The meeting is from 10:00 until 12:00 and the location is Tillsonburg. Please register with Tallgrass Ontario to receive more complete information. The AGM is the time to elect the new board. Any people considering joining the board, please contact Tallgrass Ontario.

Membership Renewal

It is time to renew your membership with Tallgrass Ontario for 2007. Your membership will help cover the costs of a very ambitious work plan including:

- Digital mapping of tallgrass habitats from Windsor to Peterborough
- Landowner work shops on prairie and savanna management
- Tallgrass habitat fact sheets for top 20 tallgrass recovery areas in Ontario
- 4 editions of *the Bluestem Banner* with information on tallgrass restoration and gardening.



Reduce Your Footprint: If you would prefer to receive *the Bluestem Banner* in colour as a PDF e-mail attachment or wish to be alerted when it is posted to the website rather than in published form, please indicate this option on your membership form.