

the Bluestem Banner



Winter 2021

Tallgrass Ontario

Volume 20, No. 2

Tallgrass Ontario will identify and facilitate the conservation of tallgrass communities by coordinating programs and services to aid individuals, groups and agencies.

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Large Purple Agalinis (Agalinis purpurea)

Go to www.tallgrassontario.org to download the Bluestem Banner in colour.

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Prescribed Burning in Ojibway Prairie Complex. Karen Cedar, City of Windsor

The Ojibway Prairie Complex is located within the City of Windsor and includes the Ojibway Prairie Provincial Nature Reserve and several municipal parks, namely Ojibway Park, Tallgrass Prairie Heritage Park, Black Oak Heritage Park, Oakwood Natural Area and Spring Garden Natural Area. At the time of European settlement, the Ojibway area supported large expanses of tallgrass prairie as well as Pin Oak and Black Oak savannas. Fire was an important mechanism for the maintenance of this open landscape until settlement reduced the frequency and extent of naturally occurring burns. Since then, forest canopy cover has increased within remaining parklands and many species dependent on open sites have experienced significant declines.



Prescribed burn in Tallgrass Prairie Heritage Park.

Rare nesting birds, butterflies, moths, leafhoppers, spiders, snakes, and more than 100 provincially rare vascular plants rely on the open habitats of tallgrass prairie and oak savanna. Tallgrass prairie and oak savanna communities are two of the most critically endangered ecosystems in North America.



Eastern Foxsnake sunbathing on a downed log.



Provincially rare Dense Blazing Star, Tall Tickseed and Gray-headed Prairie Coneflower in Spring Garden Natural Area.

Fire is critical to the natural ecology of prairie and oak savanna ecosystems. Prescribed burning mimics the fires of long ago and has proven to be an effective tool in the management of tallgrass prairie and oak savanna. These habitats recover quickly from prescribed burns and fire helps to prevent the establishment of invasive woody vegetation. Fire removes the buildup of thatch and returns the stored-up nutrients back to the soil. With earlier exposure to the sun, the perennial warm season grasses and wildflowers generally experience increased growth, flowering and seed production after a fire while the thick bark of mature Oak trees assists in providing protection from the fire.

Within Ojibway Prairie Provincial Nature Reserve, the Ministry of Natural Resources conducted the first prescribed burn of five ha in 1978, increasing to 35 ha in 1983. The eighth burn held in April of 1993

covered 130 ha and for the first time included portions of two municipal parks. Since then, prescribed burning has been conducted in all the natural areas of the Ojibway Prairie Complex.

Prescribed burns are scheduled on an annual basis, usually in early spring before the spring emergence of most rare reptiles, and prior to bird nesting. The entire burning operation is being conducted by professional fire staff who are trained in fire behaviour and control.

Despite the operational complications of conducting a prescribed burn in an urban setting, every burn has been a success. Busy streets, residences, a horse racing track, stables, natural gas lines, an active railway line, a cell tower and a major hydroelectric corridor have occurred or do occur within or adjacent to the Ojibway Prairie Complex. The burn program's success has been attributed to the level of cooperation between involved agencies, especially the Ministry of Natural Resources and the City of Windsor. Public education and research have always been an important aspect of the program. Prescribed burns are preceded by and followed up with an active education program targeting the public, park users and staff.



Prescribed burn conducted at the Ojibway Nature Centre, spring 2021. Note the effective fire break adjacent to the Centre.

Fire provides a tremendous protection to the prairie. Without the aid of fire to burn back the invading woody plants, the prairie would never have been able to maintain its tenuous foothold in the province of Ontario. Today, we continue to use fire to control woody plant invasion, while leaving some areas intact for fire-intolerant species, like insects and other invertebrates that would otherwise be adversely affected.



Mature oak trees survive a fire while other small woody species encroaching into the savanna are killed.



Prescribed burn in the Spring Garden Natural Area in spring 2020. Note the blackened earth and fire break adjacent to the public trail.

Prescribed burning is necessary to maintain healthy and diverse ecosystems within the Ojibway Prairie Complex, which contains one of the largest stands of original tallgrass prairie remaining in Ontario. Prescribed burns are part of a comprehensive restoration plan for this sensitive and endangered area.

Below is a series of videos prepared by the City of Windsor Communications team:

Prescribed Burn Preparations: Prescribed Burn Preparations - YouTube

Prescribed Burn Spring Garden Natural Area 2019: Prescribed Burn Ojibway 2021 - YouTube



Public Access Grasslands Feature Site: Hazel Bird Nature Reserve

Chelsea Marcantonio, Val Deziel and Mark Stabb, Nature Conservancy of Canada

The Nature Conservancy of Canada's (NCC's) Hazel Bird Nature Reserve lies in the heart of a historical tallgrass landscape that has all but disappeared. The high, sandy hills of the Oak Ridges Moraine once offered vistas of tallgrass prairie and oak savanna dominated by massive Black and White Oak. Grasses like Big Bluestem, Yellow Indian-grass and Switchgrass grew more than two metres high, and a diverse range of wildflowers blossomed. Today, these tallgrass prairie and oak savanna ecosystems have virtually vanished. NCC is protecting and actively restoring tallgrass habitats in the Rice Lake Plains, including the Hazel Bird Nature Reserve.



Native warm and cool season grasses abound in restored areas of Hazel Bird Nature Reserve in Northumberland County, ON.



The Hazel Bird Nature Reserve protects 118 hectares (292 acres) of oak woodland, Black Oak savanna, sand barren, and tallgrass prairie habitat. Some of these habitats are rare, threatened ecosystems that are home to species at risk including the Monarch butterfly, Eastern Wood-Pewee, Wood Thrush, Grasshopper Sparrow, Common Nighthawk, Eastern Whip-poor-will, and Eastern Hog-nosed Snake.

The property was named after Hazel Bird, pictured on the left as she monitors an Eastern Bluebird nest box. Hazel Bird was an all-around naturalist who inspired hundreds of others with her dedication and love for nature in Northumberland County.

With the help of students, neighbours, volunteers and the Willow Beach Field Naturalists, she installed and carefully monitored over 400 hundred Eastern Bluebird nest boxes in the county. Hazel's efforts were a great success with thousands of broods being raised through her nest box program.

Her biggest accomplishment came in 1996 when the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) announced that the Eastern Bluebird was no longer considered a species at risk.

The first photo below was taken in 2015 at the Hazel Bird Nature Reserve where invasive Knapweed used to persist and inhibit native plants from growing. Four (4) years of intense ecological restoration efforts later, this same area is now filled with native grass species such as Yellow Indian-grass, Big Bluestem, Little Bluestem, and Canada Wild Rye as well as native wildflowers like Common Milkweed, Butterfly Milkweed, and Aster species.

"It's a living textbook about the challenges and rewards of habitat restoration. You get to walk through many areas of native vegetation that were once covered in non-native species."

Mark Stabb, NCC's Program Director for Central Ontario East.







Restoration at Hazel Bird Nature Reserve is multifaceted and remains ongoing.

Where invasive Scots Pine once stood in 2011, a vista of native prairie grasses and forbs await visitors in 2021. These successes are the result of many hardworking hands, including staff, volunteers and partners.

Visit in spring for the returning birds and wildflowers, or in summer for the grassland bird viewing. Fall colours never disappoint in Ontario, and no winter visit is complete without spotting woodland wildlife tracks and owls!

The Hazel Bird Nature Trail, an addition to the Oak Ridges Moraine Trail, spans about 4.1 kilometres and includes a panoramic view of the tallgrass habitats in the south of the property.

Visitor parking for the trail is located at 9636 Beavermeadow Rd. E, Baltimore, ON K0K 1CO.

For more information, visit:

https://naturedestinations.ca/destinations/hazel-bird-nature-reserve.



Monarch caterpillar on milkweed.

Native Plant Notes: Large Purple Agalinis





All photographs of A. purpurea courtesy of William McIlveen.

Large Purple Agalinis (*Agalinis purpurea*), also known as Purple False Foxglove, is an annual plant native to the eastern United States and Canada. It is listed as provincially rare (S1, critically imperiled) in Ontario. It grows 10 to 120 cm tall with a slender stem and slender, opposite branching leaves. The flowers are purple to pinkish-purple in color and bloom in late summer to early fall. They are funnel shaped, up to 2 cm across, with five spreading lobes that are finely hairy around the edges. The inside of the tube is white with darker reddish-purple spots and a pair of pale-yellow stripes.

Large Purple Agalinis grows in full sun in wet meadows, prairies, and savannas and openings in sandy woodlands. Like other Agalinis, it is hemiparasitic meaning that it establishes connections with host plants using specialized roots called haustoria. Haustoria transfer water and nutrients from the host plant to Large Purple Agalinis, which also has green tissue and performs photosynthesis on its own. A variety of specialized bees, butterflies (larvae and adults), beetles and flies form faunal associations with this plant.

The Bluestem Banner is published twice per year by Tallgrass Ontario. The next edition will appear in June 2022. All previous editions of the Bluestem Banner can be found here:

Become a Member:

Tallgrass Ontario's Goals

- 1. Ensure organizational capacity
- 2. Facilitate the creation and restoration of tallgrass communities;
- 3. Increase public awareness and stewardship of tallgrass communities;
- 4. Identify and secure existing potential tallgrass communities across the province; and
- 5. Promote research and knowledge transfer of tallgrass communities

Membership

Tallgrass Ontario is always actively seeking individuals who would like to learn the roles of a TgO Board member and work to achieve a position on the TgO board.

The first step in the TgO volunteer path is to become a member. A **General Membership** is \$20 per calendar year, a **Student Membership** is \$10.00 annually and a **Lifetime Membership** is \$100.00. All memberships entitle the member to voting rights in the organization.

Tallgrass Ontario is a Registered Canadian Charity. You can donate to **Tallgrass Ontario** by visiting https://www.canadahelps.org/dn/13376

You can become a member by visiting our website at: http://www.tallgrassontario.org/memberships.html



