



the Bluestem Banner



Winter 2019

Tallgrass Ontario

Volume 18, No. 2

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

Tallgrass Ontario thanks:

Habitat Stewardship Program, Endangered Species Recovery Fund, Land Stewardship and Habitat Restoration Program, Ministry of Natural Resources and Forestry, Environment and Climate Change Canada, & Our members for their generous support.



Winter Beauties-Tall Sunflower and Cup Plant

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

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Board of Directors:

- Season Snyder
- Dan Stuart
- Pat Deacon
- Jack Chapman
- Dan Lebedyk
- Karen Cedar
- Jennifer Neill
- Jennifer Balsdon

ARE YOU PASSIONATE ABOUT PRAIRIES?



Photo credit - Said Mohamed, Wood Environment and Infrastructure Solutions

TALLGRASS ONTARIO (TGO) IS LOOKING FOR DEDICATED INDIVIDUALS TO JOIN OUR BOARD OF DIRECTORS

Tallgrass communities, including prairies and savannas, are some of the most endangered ecosystems in Canada. For the past 20 years, TGO has worked diligently to build relationships between conservation groups and individuals engaged in tallgrass recovery efforts. Through our successful, scientific-based grant efforts and community partnerships, we have facilitated tallgrass restoration and maintenance projects across hundreds of hectares in southern Ontario, raising public awareness about the rarity of these ecosystems and their importance to Canadian natural heritage.

If you would like to share in our mission and shape the strategic direction of TGO, please contact us with your resume and/or short biography at (info@tallgrassontario.org).

We look forward to discussing the many exciting opportunities on our Board of Directors.

Sincerely,
Season Snyder, TGO President

Improvement of Tallgrass Prairie for Species at Risk through Prescribed Burning – Dan Stuart and Jennifer Lau Balsdon

Prescribed burns play an important role in restoration of a prairie ecosystem. First, fire removes nearly all the nitrogen that is present in the above ground vegetation biomass at the time of the burn. Nitrogen is then volatilized into the atmosphere as a gas. Other nutrients that are not lost in a fire are the basic cations, calcium and magnesium, which are returned to the soil in ash. The black ash then absorbs the sun's energy during the day and insulates the soil against heat loss at night. The warmed soil speeds up the development of underground shoots growing to depths taller than an average man (~5 foot 8 inches). Secondly, the *fire* kills plants that are not specifically adapted to tolerate burning. Shrub and tree seedlings and other non-prairie weeds are kept out by regular burns. So, what do we require to burn you may ask? The perfect burn requires a well-developed plan, a phone (communication), propane torch, water source, informed neighbours, and a suitable weather forecast.



Tallgrass Ontario is completing a two-year *Habitat Stewardship Program (HSP) Species at Risk (SAR) Stream* project through a grant from Environment and Climate Change Canada, working to address the threat of succession and conversion of breeding, nectaring, and staging habitat for the SARA-listed **Monarch butterfly** (Special Concern; Tier 2 Priority Species). Habitat improvement was accomplished at five existing tallgrass prairie sites through application of prescribed burns as a means of native wildflower regeneration for prairie/open country species including

milkweed, a key plant species utilized for Monarch life processes.

Fall 2018 and spring 2019 activities included recruitment of interested landowners in the Norfolk Sand Plain (Tier 1 Focal Landscape, Tier 3 Regional Priority). This region has been identified as a priority area for its high biodiversity value and its unique ecological/biological landscapes where a high concentration of SAR has been found. The Norfolk Sand Plain which occurs adjacent to Lake Erie also functions as a key migratory corridor for Monarch butterfly, the focal species of this project, providing stopover habitat as a “waystation” on the migratory route toward the mountains of central Mexico where Monarch overwinters. This project also serves to benefit habitat for numerous other prairie-specialist SAR such as American Badger, Eastern Hog-nosed Snake, and Bobolink by enhancing native grassland environments.

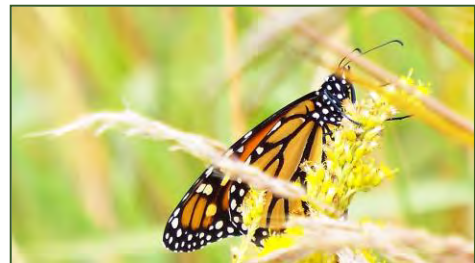




Figure 1: Pre-burn photo (fall 2018; left) and Post-burn photo (fall 2019; right)

Initial field surveys occurred in fall 2018 to document baseline conditions at each site, including existing populations of milkweed, of which common milkweed (*Asclepias syriaca*) and butterfly milkweed (*Asclepias tuberosa*) were found, supported by numerous other wildflower species. Initial surveys noted the presence of Monarch butterflies and/or other SAR. Prescribed burns were completed in spring 2019, followed by another round of field surveys repeated in fall 2019 for comparison in the post-burn setting.

Tallgrass Ontario is in the process of reviewing data collected during post-burn site assessments, comparing with milkweed abundances and densities with pre-burn counts. Post-burn data at five sites suggests an increase in the abundance of milkweed (Figure 1) and other native wildflowers (Figure 2) supporting the premise that prescribed burns improve wildflower diversity within tallgrass prairie communities. In addition, the presence of Monarch butterfly larvae and nectaring and/or migratory Monarch were observed during post-burn field surveys, an indicator of the suitability of these sites to support the life cycle of Monarch and their importance to the protection of the species in this important migratory region.



Figure 2: Post-burn, wildflowers sprouting after a spring burn



Figure 3: Wild Lupine in bloom after a spring burn

Tallgrass Ontario would like to thank Environment and Climate Change Canada for their continuing support of our organization's endeavours, which contribute to the ongoing creation and maintenance of habitat for SAR inhabiting prairies and savannas in Ontario.

Dan Stuart and Jennifer Lau Balsdon are members of Tallgrass Ontario's Board of Directors. Dan is a Terrestrial Ecologist with Azimuth Environmental Consulting, Inc. in Barrie, Ontario. Jennifer is a Project Manager with Impact Assessment Agency of Canada in Halifax, Nova Scotia.



The next issue of the Blue Stem Banner will be published in Summer 2020. The current and all previous issues can be found on our website

http://www.tallgrassontario.org/bluestem_banner.html

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;
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>

