

## Downsview Park Tallgrass Project Update

### 1.0 Introduction

Tallgrass Ontario and Downsview Park have formed a partnership with the goal of establishing a tallgrass prairie habitat at Downsview Park. This goal will be achieved through the planting and seeding of 26 varieties of native plant species in combination with proper site preparation, a commitment to long-term maintenance and the continued engagement of the local community.

Tallgrass Ontario is contributing the expertise and experience needed to successfully establish a tallgrass prairie natural area. Downsview Park is providing on-site support and coordination for the installation of green infrastructure for this project. Downsview Park is also engaging the local and city wide community with the Downsview Park Tallgrass Project (DPTP) through the development and delivery of DPTP-related school and community educational programming.

### 2.0 Nature Benefit

On July 14<sup>th</sup> Tallgrass Ontario (TgO) visited Downsview Park to conduct the first ecological assessment of the Tallgrass site. During this assessment TgO reported that 90% of the site consisted of bare soil, an expected result one month after the initial June 15<sup>th</sup> seeding. TgO also described the site as having low levels of weedy cover, a sign that previous site preparation work was successful. TgO did recommend some weed control measures be conducted in two small sections within the Tallgrass Prairie site that had elevated establishment levels of weedy species. Downsview Park staff completed the recommended control methods shortly after receiving the control recommendation from TgO.

TgO's ecological report found very minor evidence of prairie seedling germination, an expected result so soon after the initial seeding. Despite being so early in the establishment process a few tallgrass species were identified within the tallgrass site including: *Elymus sp.* (Rye), *Panicum* (possibly Switchgrass) and *Rudbeckia hirta* (Black-eyed Susans).

TgO also reported 11 species of bird during their ecological assessment, including approximately 40-50 Barn Swallow (Threatened under Ontario's *Endangered Species Act, 2007*) that were observed foraging ("swarming") above the prairie site.

### 3.0 Connection to Community

The DPTP has now been integrated into thirteen Downsview Park school and community programs, engaging participants from across the Greater Toronto Area. The DPTP is the main focus of the "Prairie Program", our newest school program. The education programs listed below have engaged 1241 participants with the DPTP since 1 July 2017.



A monarch butterfly visits a Giant Sunflower (*Helianthus giganteus*) located in a tallgrass test plot

School Programs	Community Programs
Invasive Species Urban Forest Stewardship Nature Detectives Junior Park Explorers Urban Biodiversity Creepy Crawlers Ecosystem Pollinators Forest Games Prairie Program	Nature Connection Downsview Park Stewardship



Students planting tallgrass plugs during the first Prairie Program

There have also been a number of special education programs and events that have highlighted the DPTP, such as:

- Canada Day** - On July 1<sup>st</sup> thousands of people came to Downsview Park to celebrate Canada Day. Amongst the day's many activities were free tours of Downsview Park hosted by Downsview Park education staff. By the end of the event approximately 200 people had been engaged with the DPTP through small group tours of Downsview Park.



A September 9<sup>th</sup> Heritage Walk through the DPTP area

- Heritage Walk Toronto** –Downsview Park partnered with Heritage Toronto to deliver a free Heritage Walk program. The program focused on natural heritage and explored the many connections between the DPTP and the local community's natural heritage.
- Christmas Bird Count for Kids** - On December 16<sup>th</sup> Bird Studies Canada and Downsview Park hosted a free community program designed to engage young families with the act of citizen science. Participants got outside and explored nature with the shared mission of collecting data on park wildlife and submitting that data for use by scientists. The program contributed to an ongoing citizen science record of wildlife using the tallgrass prairie at Downsview Park. The most exciting moment of the program came when we observed a Northern Harrier, a raptor that requires open habitat, hunting above the tallgrass site.

Since July 1st 2017, 1,534 people have engaged with the DPTP through Downsview Park's educational programs and special events. A total of 4,091 people have engaged with the DPTP since the start of the project.

**Sustainability**

Downsview Park staff continued to work with community partners to establish and maintain a tallgrass prairie at Downsview Park. A vital part of this effort included controlling and eliminating invasive species populations in and around the tallgrass site. During the 2017/18 school year 399 students visited Downsview Park and contributed to the Downsview Park Tallgrass Project by taking direct action against invasive species. It is hoped that a new "crushing" method will lead to greater success in the effort to control a particular invasive aquatic plant, Phragmites. Students worked in teams and placed plywood on top of the invasive plants. After placing the plywood they stood on the wood and used their weight to crush the plant stalks. The result is a thick layer of dead plant material that we are hoping will slow the spread of this dangerous invasive species.



Students preparing to "crush" invasive species

**Innovation**

In the spring of 2017 Downsview Park staff worked with visiting school groups to try and establish tallgrass prairie species at Downsview Park using alternative methods that did not involve chemical treatment. The first method involved using newspaper to suppress the growth of non-native species; the



Tallgrass species flowering in the Madonna Catholic Secondary School planting area

initial installation using this method was done with help from grade nine and ten students from Madonna Catholic Secondary School. The plugs planted in this area survived the summer and successfully produced seed in the fall of 2017. We will continue to monitor to see if the area is able to further establish from seed in the spring of 2018.

The second alternative method involved planting tallgrass prairie species on the outer edge of a tree planting area. It's hoped that the tallgrass species will provide some short-term ecosystem and aesthetic services while the trees slowly become established. In the long-term this method may even result in the establishment of a thin tallgrass buffer on the outside of the forested naturalized area, increasing the biodiversity of the naturalized areas and continuing to provide ecosystem and aesthetic value.

After the 2017 spring planting in the tree planting area we observed tallgrass prairie species blooming into the fall of 2017, an initial sign of success. We repeated the testing of this method during a tree planting school program in September of 2017, this time we used seeds instead of plugs to establish tallgrass species. The results of this new establishment method won't be known until the spring of 2018, if successful it would represent a more cost effective way of establishing tallgrass prairie species while tree planting.