



Soil Properties Driving *Typha x glauca* across Saskatchewan

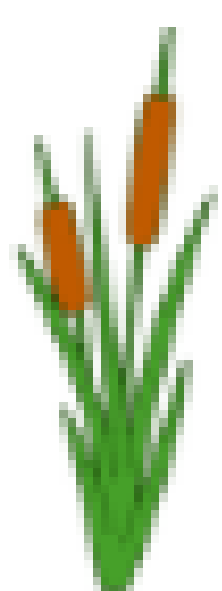
Jaylyn Marsh¹ & Chantel Chizen^{1*}

¹ Department of Soil Science, University of Saskatchewan

Background

Typha x glauca is a new emerging invasive Hybrid Cattail recent invaded Saskatchewan. It is a hybrid from the two parents *Typha latifolia* (native) and *Typha augustifolia* (invasive). The invasive nature can cause reduction in species in the wetland environment and can survive in more harsh conditions such as drought.

Material & Methods



Our study took soil samples at two depths (0-15 and 15-30cm), within 4 sites around the City of Saskatoon. The soils were analyzed for pH, potassium, phosphorus, gravimetric water content, and electrical conductivity.

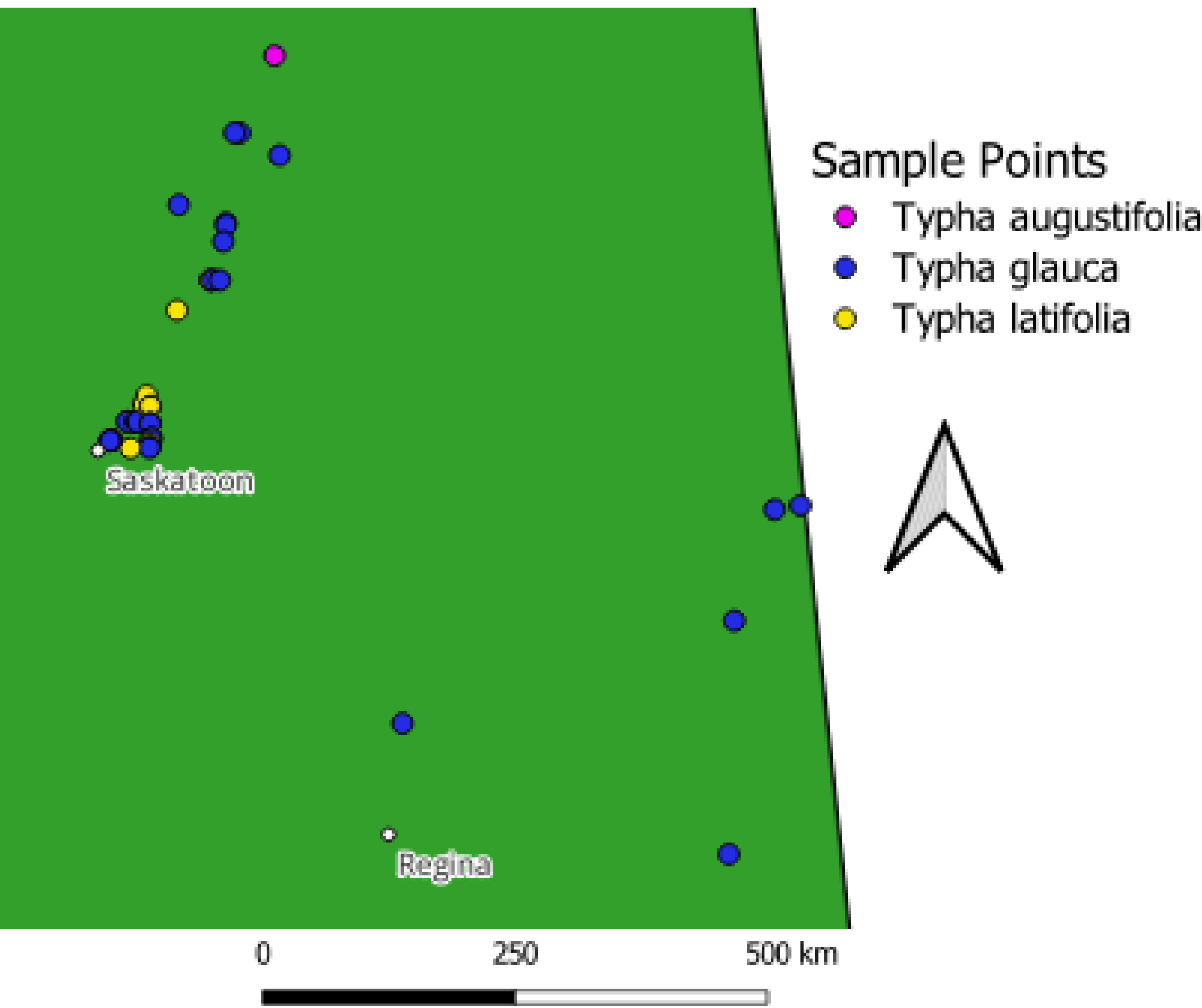


Figure 1. Distribution of different *Typha* surveyed through Saskatchewan

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Invasive Hybrid Cattail Marks a Shift in Soil Properties



Results

The survey found of *Typha x glauca* was found to be present in 23 sites. With majority of the sites having multiple species present.

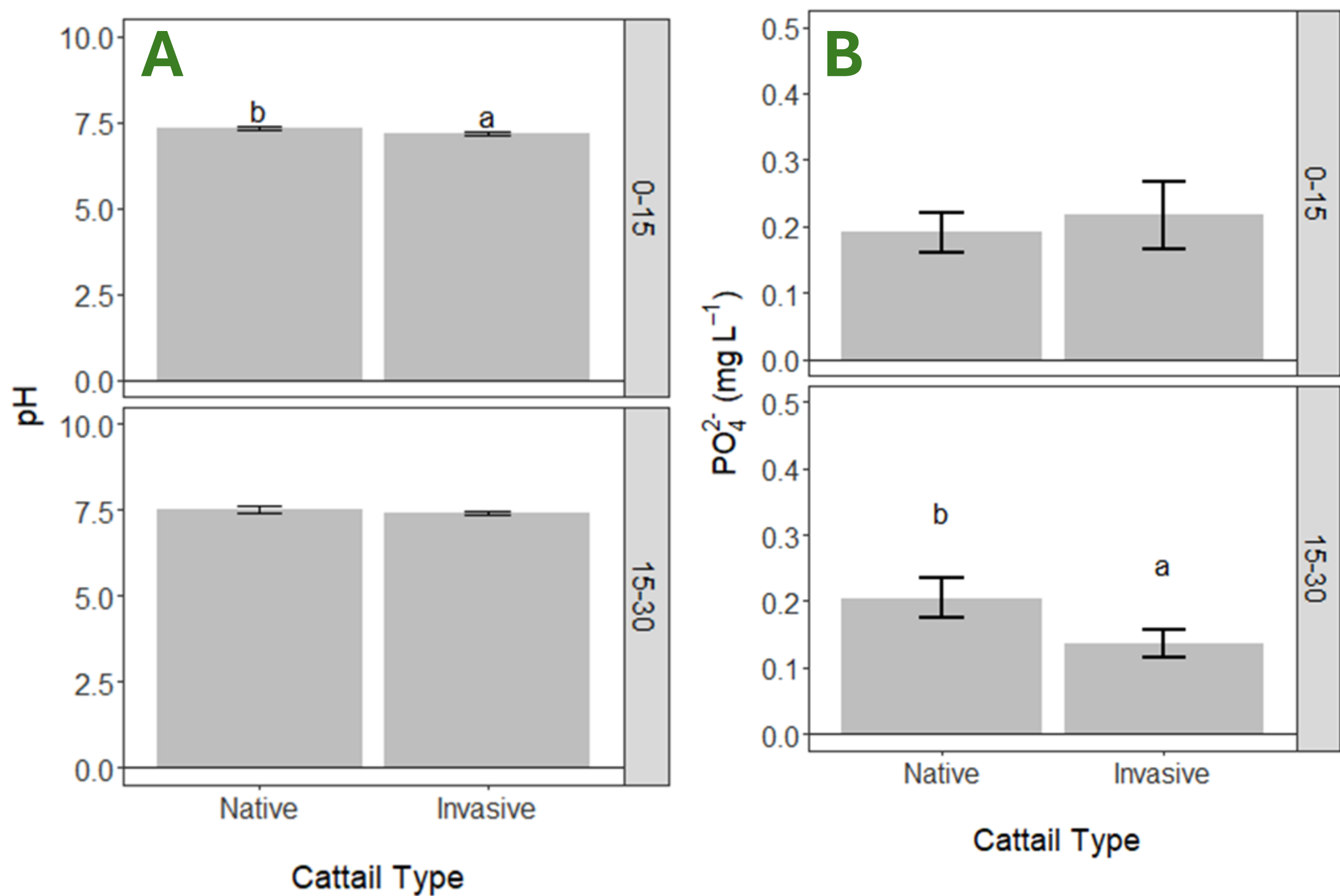


Figure 2. (A) Soil pH and (B) soil PO₄³⁻ results, compared between two different cattail species *Typha x glauca* (invasive hybrid) and *Typha latifolia* (native). With soil sampled at two different depth increments of 0-15 and 15-30cm. Error bars represent standard error.



Figure 3. Two different cattail spike comparison invasive hybrid, *Typha x glauca* (left) and native *Typha latifolia* (right)

Conclusions

Typha x glauca was found to be statistically significant compared to the native cattail *Typha latifolia*, with changes in the pH and phosphorus.

Typha x glauca is growing rapidly and migrating to many new locations in Saskatchewan, then previous research found.