

Managing Phragmites with Volunteers

*Assessing the Efficacy of Citizen
Scientist Volunteers Employing
a Manual Spading Technique on
Invasive Phragmites*



Photo Credit: Matt Forsythe - City of Toronto

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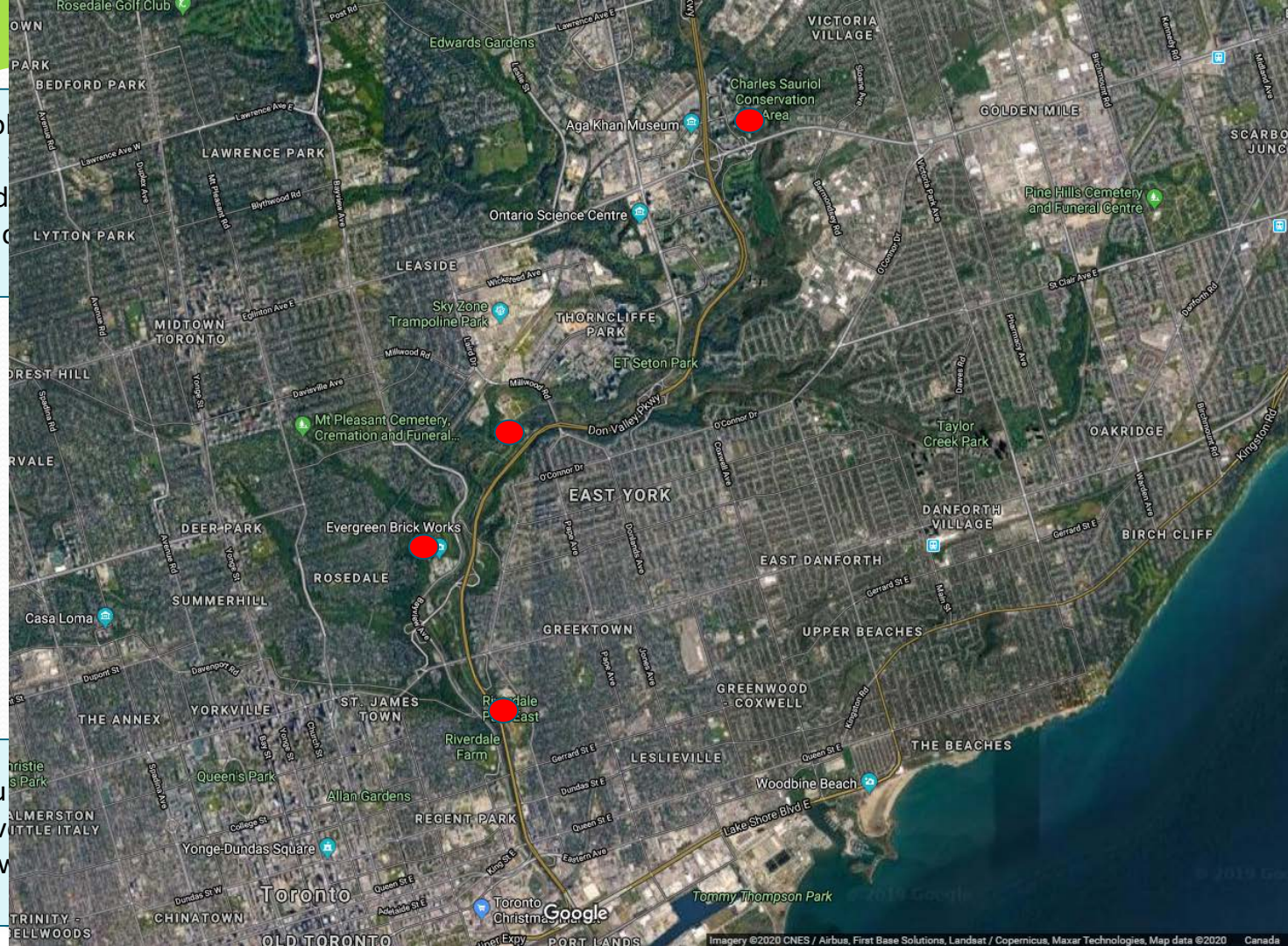


Who is EcoSpark?

EcoSpark empowers people to take an active role in protecting and sustaining their local environment. We give people the tools for education, monitoring and influencing positive change!



Can you
Short's
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How do volu
being involv

volunteer-
es be used
t for future
qualities?

The Partners and Their Roles

**Prof. Lynn Short /
Humber College**

Technical
consultation for
study design;
assistance in
report writing

Train volunteers
on spading, and
on Phragmites
life history

EcoSpark

Writing of
the final
report

Take the lead
on data
collection,
compilation,
interpretation

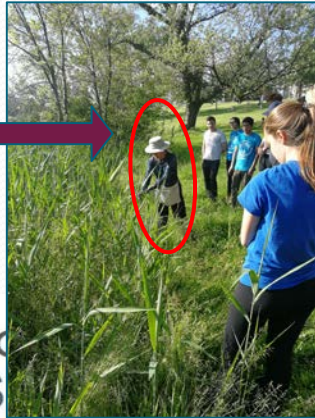
Administer
surveys to
volunteers;
volunteer
appreciation
event

City of Toronto

Bring the
Community
Stewardship
Volunteers,
and use of the
existing
CSP sites

Assist with
data collection,
treatment
application,
and report
writing
assistance

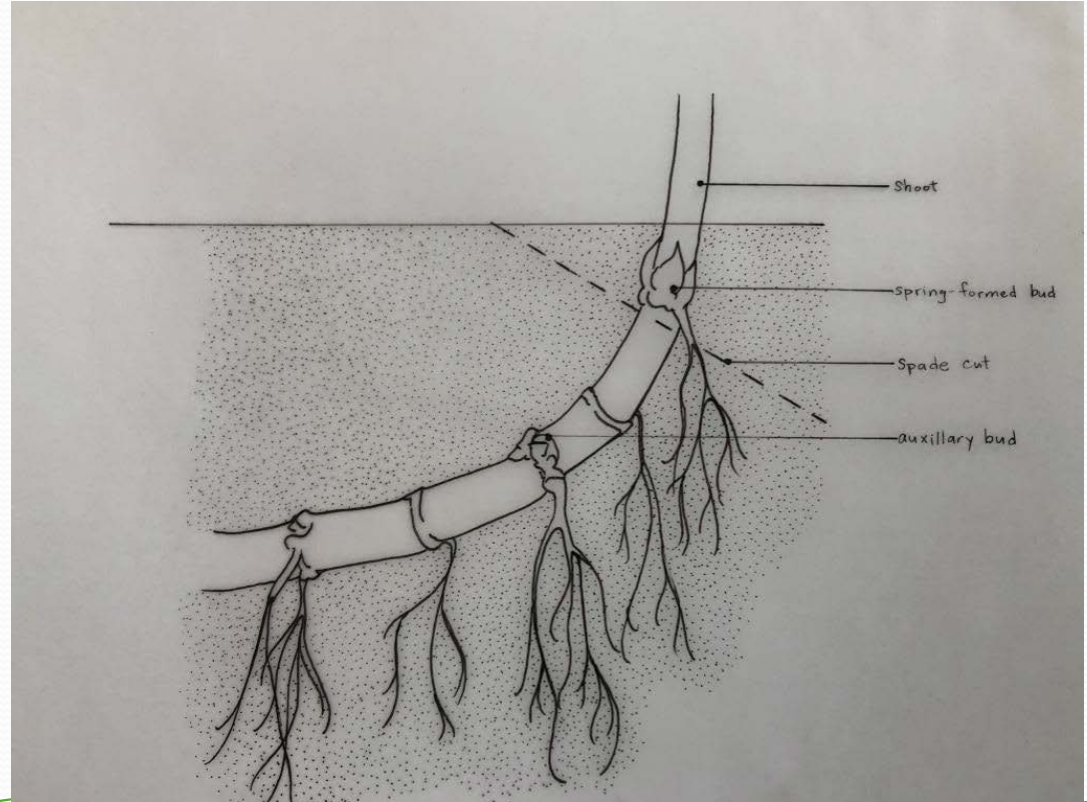
Lynn



Briefly: Short's Spading Technique

War of Attrition

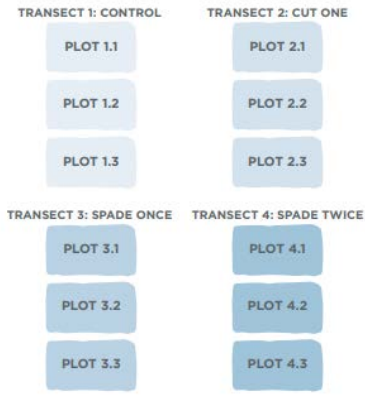
- Use a sharpened spade to cut the rhizome just below the spring-formed buds early in the season (i.e. May or June)
- Spade again later in the season (i.e. July or August) to remove the axillary buds
- Time permitting: spade again in October or November to disrupt the formation of the subsequent year's spring buds



What We Measured

Phragmites Metrics

- Stalk density (stalks per square meter)
- Stalk height
- Stalk diameter
- Biodiversity in plot 1 of each transect (species, and abundance)

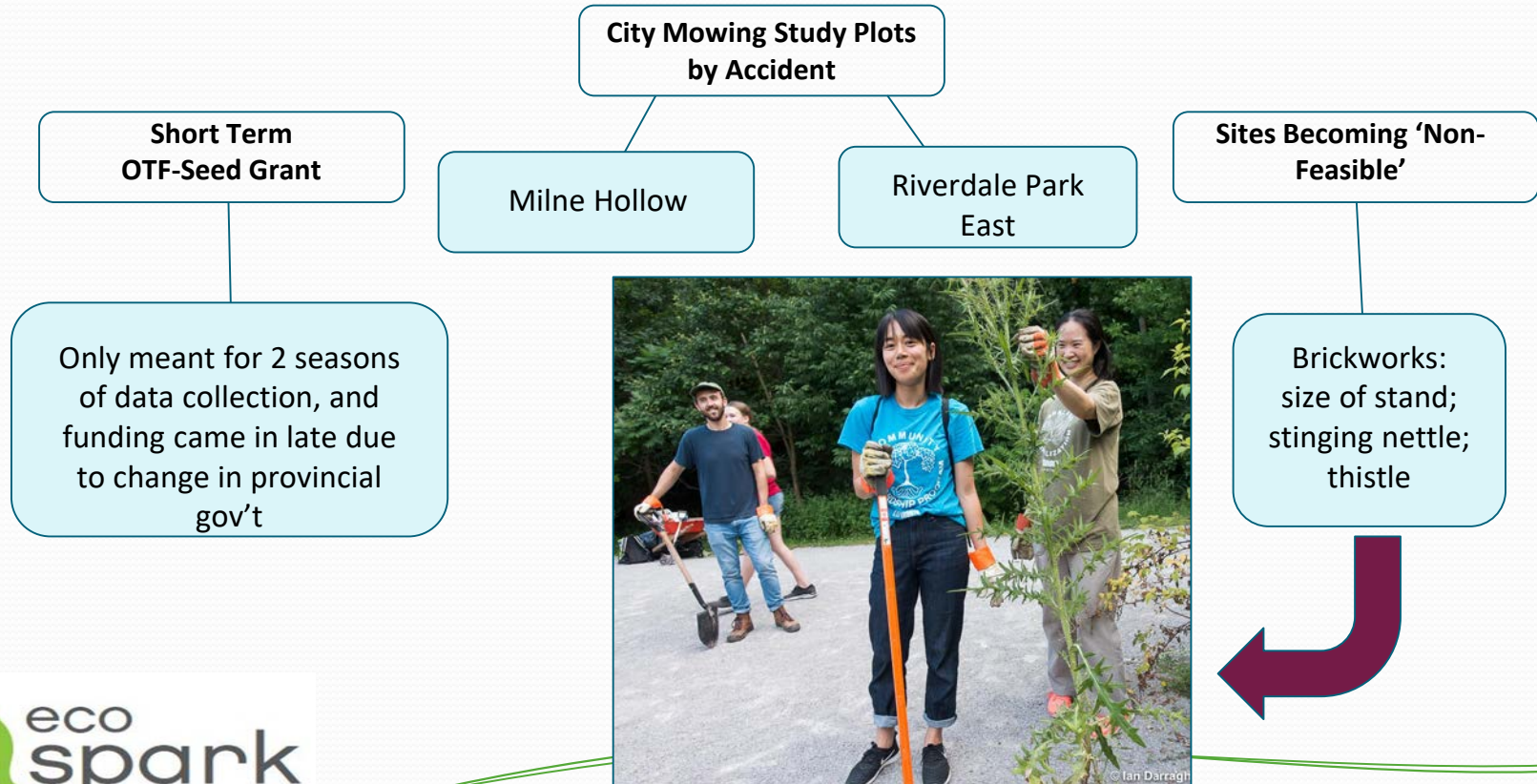


Volunteer Metrics

- Amount of phragmites removed per volunteer per 2 hours spading event
- Whether volunteers felt they had learned something and thought that their work was having an impact



Limitations

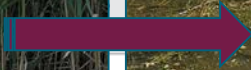


What We Found Out



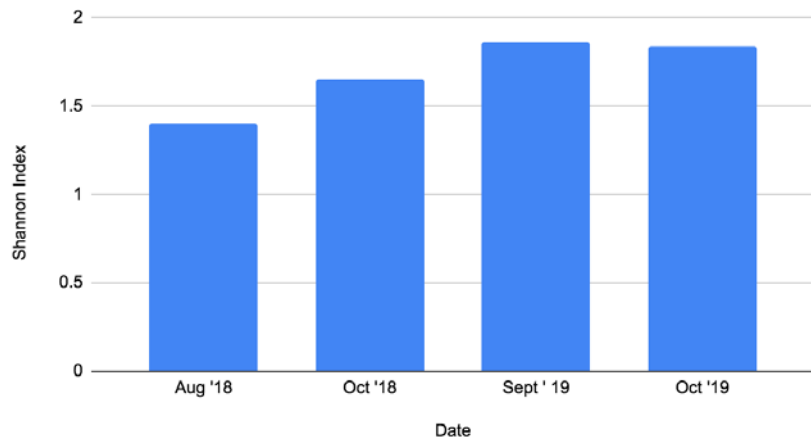
Volunteer Metrics

- Removed 1800 - 2000 lbs
 - 10 lbs / volunteer / 2 hour spading event
- Most volunteers felt that the work they did was valuable and making an appreciable impact
- Some volunteers haven't heard of Phragmites before, and learned a lot about it
- All volunteers felt empowered to continue with this kind of work - especially in areas that are not public property where they would be able to continue on with this kind of work without permits, etc.

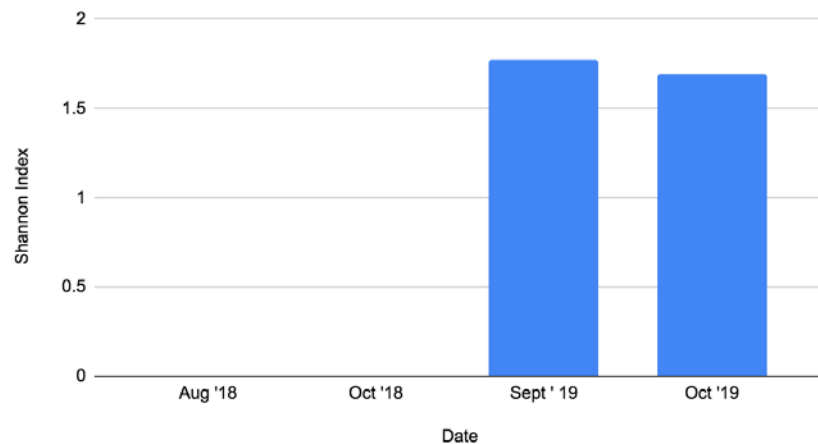


	0 individuals	present	Duckweed (<5% coverage)
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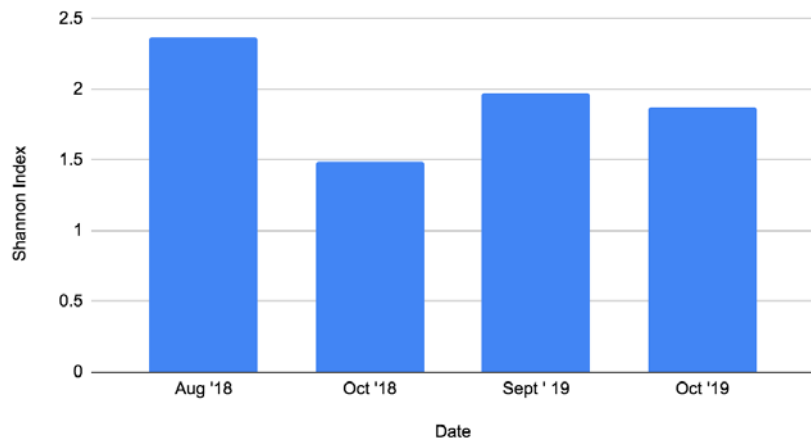
Milne Hollow Control Transect - Plot 1



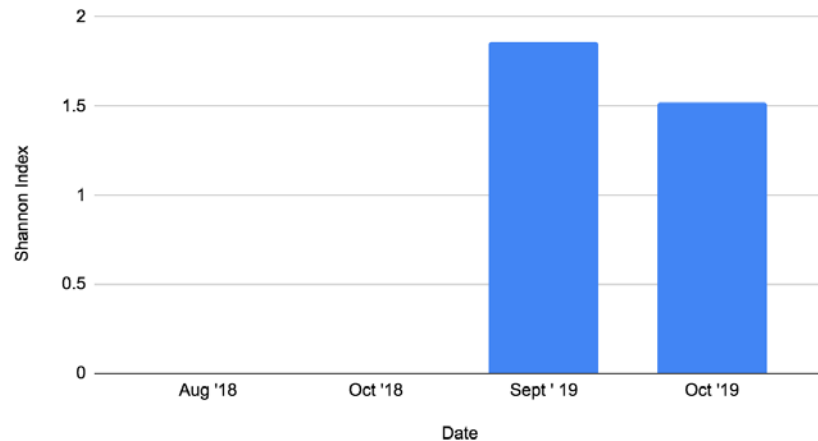
Milne Hollow Cut Once Transect - Plot 1



Milne Hollow Spade Once Transect - Plot 1



Milne Hollow Spade Twice Transect - Plot 1



Thank You

- Full report: download a PDF copy **for free** from our website
www.ecospark.ca/phragmites-report
- Buy a coil bound copy **for \$15** from me

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