



WINTERGREEN  
STUDIOS

# Project Bee

Report to TD FEF

*October 2021*



TD Friends of the  
Environment  
Foundation

# Introduction

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Wintergreen Studios is a year-round environmentally friendly educational retreat centre, located on 200 acres of mixed forests, meadows, and granite outcrops in the heart of the Frontenac Arch Biosphere Reserve. The reserve is part of a global network of UNESCO designated reserves—natural regions with unique geographic features, populated with people committed to sustainable community development. Wintergreen’s off-grid solar-powered facilities serve a three-fold focus on education, culture, and the environment.

## What is Project Bee?

*Project Bee* is a multi-faceted program designed to raise awareness of the importance of pollinators for food production and to empower youth to take direct action to enhance native and domestic pollinator habitats in their schools and communities.

This year, the TD FEF *Project Bee* program expanded Wintergreen's in-person and virtual workshop capacity, strengthened community partnerships, cultivated plant habitats at schools and other community settings, and facilitated youth engagement and activism.



# Our Achievements

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Thanks to funding from TD FEF, in-kind contributions, partnerships, an additional small grant, and volunteer support, we were able to expand our *Project Bee* program and raise awareness about pollinators within our community and among local youth.

We developed the community bee yard at Wintergreen Studios, identified two new Bee City Canada Schools, created and delivered both virtual and in-person programming, and produced an educational video on topics related to beekeeping and pollinators.



**Community Bee Yard**



**Bee City Canada Schools**



**Virtual & In-Person Programming**



**Educational Video**

## Community Bee Yard

In May 2019, Wintergreen Studios established 9th Meadow Apiary – a collection of three hand-painted hives that housed 150,000 honeybees. Our apiary has grown to four hives and over 250,000 bees in the peak of the summer season!

Through *Project Bee*, and with the guidance of the Limestone Beekeepers' Guild, we were able to enhance this initiative and develop a community bee yard. In spring 2021, we hosted a virtual 'Introduction to Beekeeping' training session that attracted over 30 participants – including students, Queen's teacher candidates, and members of the general public. These individuals were introduced to everything from honey bee biology and beekeeping equipment to hive health, honey production, and seasonal responsibilities.

Using 9th Meadow Apiary as a demonstration site, we hosted several follow-up sessions with small groups (to comply with COVID safety protocols). Lead by Dr. Alexandra Pedersen, volunteers received essential hands-on experience by taking part in the summer hive check and fall extraction processes.

In total, we successfully trained 8 beekeeper volunteers. These individuals enjoyed the experience so much, that 6 have decided to carry on working at the apiary – helping us with winter wrapping, spring opening, and general apiary maintenance.



## Bee City Canada Schools

Youth are severely impacted by climate related changes, and an important step in mitigating eco-anxiety is by learning and taking action. Accordingly, this project focused on raising awareness and educating youth about pollinators.

In November 2020, we identified two schools to become our newest Wintergreen Bee City Canada schools: **Loughborough Public School** and **Brooke Valley School**.



In the first stage of our school partnerships, we designed and delivered half-day virtual seminars on pollinators and native plantings. We supported the students as they learned to serve as leaders in their communities and worked to address the declining bee population – one of the damaging results of the climate crisis.

The schools each identified various sites for native pollinator gardens and designed the gardens to include native plants, water sources, and habitats for wild bees. Together, we planted 10 community gardens in 3 different Bee City Canada schools! Students developed their gardening skills and learned to identify plants and pollinators. The species they identified were recorded in an iNaturalist project, as students became citizen scientists and engaged with species experts online.

In September of 2019, Wintergreen Studios became Canada's 29th Bee City School, a national network of schools, cities, and businesses committed to protecting pollinators through Bee City Canada. Wintergreen has supported three new Bee City Schools: Mulberry (2020), Loughborough (2021), and Brooke Valley (2021).



## Virtual & In-Person Programming

### Bee City School Workshops & Projects

Through our Bee City Canada school partnerships, we hosted half-day citizen science and iNaturalist workshops. Students from Loughborough Public School and Brooke Valley School learned how citizen scientists collect data for research projects. To empower these young people to take action, we invited them to join our iNaturalist project – a collective, online effort to track the various species at Wintergreen Studios and in the Township of South Frontenac and neighbouring municipalities. Each school also created their own iNaturalist projects.

The students identified 50 pollinator species, including goldenrod, milkweed, hummingbirds, and of course, bees! This data was tracked through iNaturalist and will be shared with larger initiatives such as NatureServe Canada to help identify, map, and better understand our local biodiversity. The schools also received follow-up iNaturalist sessions to share and reflect on the species they discovered.



In addition to these educational workshops, the schools received virtual garden consultations to help them plan and successfully cultivate their community pollinator gardens. These sessions covered the best plant species for pollinators, along with tips for ideal placement, soil type, and sunlight exposure.

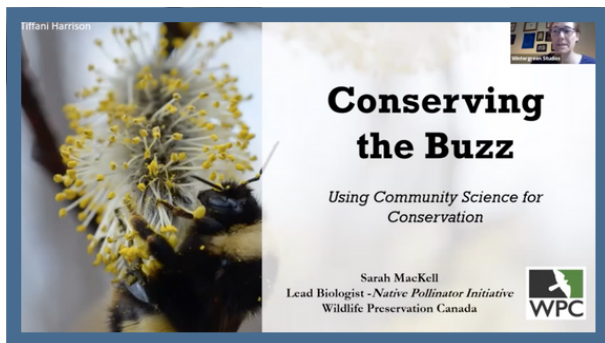
## Land Art BioBlitz 2021

Our annual Land Art BioBlitz is a free family-friendly event that aims to celebrate the beauty and diversity of the natural world.

At our 2021 event, we offered two workshops in conjunction with *Project Bee*, exploring the basics of pollinators and how to get involved in bee conservation. Due to COVID-19, we recorded these workshops in live stream sessions so that more people could access and enjoy the content. Hundreds of participants took part during these workshops, and the recorded videos remain available on our website and YouTube channel.

### Wild About Pollinators

Our resident beekeeper, Alexandra Pedersen, takes us into the world of pollinators and explores their many wonders.



### Conserving the Buzz

Sarah MacKell teaches us about Wildlife Preservation Canada (WPC) and their Native Pollinator Initiatives, with a focus on the bumble bee recovery program.

## Educational Video

As part of our educational outreach, we developed an educational video on a variety of topics – from the importance of pollinators to planning a garden. The video was put together by our Digital Storytelling Intern, Ryan MacDonnell, and is available on our YouTube channel. By creating this online content, we hope to raise further awareness on the impact of pollinators and how individuals can take action to reduce environmental harm.





# WHAT WERE THE RESULTS?

Despite restrictions caused by the COVID-19 pandemic, *Project Bee* achieved incredible results – bringing our community together to learn about and celebrate the magic of pollinators!

**330**

virtual and in-person participants



**50**

pollinator species identified by students

**10**

community gardens planted



**8**

fully trained apiary volunteers



**17**

workshops delivered



**4**

Bee City Canada Schools founded or maintained

# TESTIMONIALS

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Participants of *Project Bee* – including students, workshop participants, and volunteers – expressed their appreciation and enthusiasm for the various learning opportunities offered through this multi-faceted program.



“ Planting seeds for the pollinator garden at Loughborough made me excited that something so interesting was again being added to the school I grew up in.

– *Loughborough Student Participant*

“ I think that bees are the most amazing creatures and I know that pollinator populations are declining. While I'd like to try keeping bees in the future, a learning experience like this is invaluable before embarking on my own.

– *Volunteer Beekeeper*



“ Virtual workshops about pollinators helped me to understand how crucial pollinators are for the environment.

– *Land Art BioBlitz 2021 Participant*



# PARTNERS & BUDGET

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Our primary workshop delivery partner was Bee City Canada. In addition to the \$10,750 grant from the TD FEF, we also received funds and in-kind support from a number of organizations, totalling \$13,080. These included in-kind support from Limestone Beekeepers Guild, volunteers from Queen's University, local participant schools from Limestone District School Board, and funds and partnership support from the Community Foundation for Kingston & Area.

We also partnered with a variety of curriculum and program advisors, including Dr. Peter Graham (Concordia University), Dr. Alexandra Pedersen (Limestone Beekeepers Guild), Callista Markotich (Retired Superintendent), and Charlotte Smith (Youth Advisor).



# NEXT STEPS

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Since May 2019, *Project Bee* has made a considerable impact within our community and among local youth. Thanks to funding from TD FEF, we were able to strengthen this program and expand the reach of our educational resources. In the future, we hope to maintain this upward trajectory so that more people can learn about pollinators and work to reduce the damaging effects of the climate crisis.

01

## Volunteer Beekeeping

In addition to the 6 volunteer beekeepers that will continue at 9th Meadow Apiary, we will be offering more volunteer positions in 2022.

02

## Bee City Canada

We are going to continue supporting our Bee City Canada schools to solidify programming and help with the upkeep of pollinator gardens. We plan to partner with more schools in the coming years.

03

## Workshops & Programs

Once COVID restrictions are lifted, we will host a cross-school event at Wintergreen Studios. We are also planning to develop a virtual beekeeping course through our online Learning Centre.