

Canadian Tree Fund  
171 Bella Vista Drive  
Alliston ON, L9R 2G7

## **Urban Food Trees in the Field: Select Case Study Examples in Canada**

The recent establishment and popularity of community orchards across Canada reflects the growing interest in Urban Food Trees (UFTs) and demonstrates the demand for urban food production. However, UFTs are an understudied area within urban forestry. To address this gap in knowledge my initial research questions were: In Canadian cities, how do urban food forests benefit communities, reflect the diverse management and planning goals, and for whom are these landscapes created? Examining different public urban food forestry models will allow close examination into 1) what is the function and diversity of UFT models and supporting organizations, 2) what are the ways that more-than-human relationships influence UFTs, and 3) how do power dynamics shape the accessibility of UFTs.

To answer my research questions, I conducted field work during the growing season in 2019 in Victoria, Calgary, Edmonton, and Toronto. Each of these cities had at least one field site, with Victoria having four. The field sites were selected because of their organizational and vegetative diversity to offer a broad perspective on practices and experiences within currently established sites. To ensure that trees were mature enough for harvesting, and that there was enough time for community members to be involved with the sites, all the selected sites were at least five years old during the 2019 field season. All the sites were publicly accessible with none of the food being sold for profit, therefore excluding urban farms and agricultural businesses. A series of semi-structured walking interviews and intercept interviews were conducted at all field sites. The timing for the different field sites was intentionally selected to correspond with fruit ripening and site activities to engage with the greatest number of people and obtain a broad cross-section of perspectives. In the following sections I will outline key research experiences and observations at the Victoria, Calgary, and Edmonton field sites. The Toronto field site will not be discussed in this report because living in Toronto, it did not require additional field research funding.

### **Victoria**

The first city visited was Victoria for six weeks from mid-June to August. In that time, I was able to visit four different field sites and conduct 23 semi-structured interviews and 62 intercept interviews with 72 people. To support my interview findings I attended site tours, a pruning workshop, volunteer work parties, and visited the sites on my own.



During my visits I noted the different activities occurring and trees involved. While visiting the sites I also engaged in some independent weeding to help support the organizations and sites that I was visiting. Throughout Victoria the impact of winter moth (*Operophtera brumata*) was evident throughout the city canopy and field sites with latticework holes puncturing the leaves. One intrepid winter moth larva tried to hitch a ride home on my backpack. This was not the only non-human encounter at the field sites with deer frequently seen throughout the city, and one field day cut short because of a cougar sighting up the road. Many participants noted that it was a dry year with drought impacting the growth at different sites.

Generally, the field sites had high connectivity with public transit/main roads, popular walking paths, and connections to food security organizations. Two of the sites received grants from the municipality to hire a paid coordinator. A third site also hired a paid coordinator, although the funding was through the not-for-profit food organization Lifecycles. All the site coordinators were knowledgeable and passionate about their sites and played a major role in the maintenance and tending of the trees and other vegetation. One site had clear evidence of community engagement and participation with children's crafts integrated into the site, and a spontaneous fairy house appearing at the base of an apple tree. Being physically present and walking around the city allowed me to better understand the complex municipal governance of the Greater Victoria Area, as well as the accessibility and connectivity of the sites.



grants from the municipality to hire a paid coordinator. A third site also hired a paid coordinator, although the funding was through the not-for-profit food organization Lifecycles. All the site coordinators were knowledgeable and passionate about their sites and played a major role in the maintenance and tending of the trees and other vegetation. One site had clear evidence of community engagement and participation with children's crafts integrated into the site, and a spontaneous fairy house appearing at the base of an apple tree. Being physically present and walking around the city allowed me to better understand the complex municipal governance of the Greater Victoria Area, as well as the accessibility and connectivity of the sites.

## Calgary

At the beginning of August, I travelled to the Calgary field site for just over two weeks. There was only one field site studied with a small and disperse group of

volunteers. There were previously other sites planted with food trees in Calgary and listed on their website at the time, however, upon further investigation, only one was still maintained and fit my research criteria. Speaking with community members revealed that wayward soccer balls from a children's rec league irreparably damaged some trees planted at one site. Visiting another site in a park further from the city centre revealed a gravel parking lot and many tall grasses where the food trees were supposed to be planted.

At the primary study site, I conducted 11 semi-structured interviews and 30



intercept interviews with 46 people. There was only one primary site volunteer, so to further understand the site dynamics the intercept interviews were essential. Adjacent to the community orchard site there was a longstanding community garden, and a popular cycling path providing a lot of local foot traffic. It was also a popular place for the many neighboring families with children visiting the site, and even one of the local cats. It was an unusually wet season with green grass covering the field site, rather than the more typical brown crispy turf. The field site was in the flood plain of the Bow River

and was impacted by the momentous flood of 2013. Observing the trees at the site it was evident that pruning was required for many trees with numerous branches weighed down by fruit and other structural issues. Many community members described sampling some of the cherries and apples, as well as harvesting from the nearby berry patch.

## Edmonton



I travelled to Edmonton and visited the field sites there from the middle to the end of August. The primary field site I investigated was a naturalization planting initiated by the municipality which only included native edible species. Typically, the

city organized one volunteer planting day per year to expand the naturalization area. After the planting day there was minimal site tending with watering for the first couple of years, and no volunteer group. It was quite challenging to find the previous planting sites despite their location on Google Maps and the City website. Furthermore, I came across someone else wandering around looking for the same site, confirming the difficulty with which to locate and harvest from the sites. Eventually I was able to locate some very small red currant, choke cherry, and saskatoon berry trees among the tall grasses. The choke cherries were a food source for the local coyotes with cherry pits in their scat, and a dwelling with coyotes frequently under their branches. The food forest sites were planted along the south and west facing slopes in the river valley, with the 2019 site planted further east in the river valley, on a north facing slope. In Edmonton the trail through the river valley past the sites is a popular recreational and commuting pathway. With no designated volunteer group, only 7 interviews (11 people) with municipal actors and key tree planting volunteers, with the 23 intercept interviews (36 people in total) providing the bulk of the information about site engagement. I attended the naturalization planting day, chatting with volunteers while planting trees.



Throughout my field work I learned of another site in Edmonton, a “micro-orchard” planted and maintained in a local schoolyard by the fruit gleaning organization Operation Fruit Rescue Edmonton and the Edmonton Permaculture Guild. Within the planting design aesthetics were intentionally considered to draw in community members, and an overall permaculture approach guided the site. There were a few regular volunteers that helped with weekly watering, but the volunteering was primarily through larger tending and juicing events. Small woven bags were used as a preventative barrier for apple maggot (*Rhagoletis pomonella*) and codling moth (*Cydia pomonella*). No intercept interviews were conducted at this site because while visiting the site there were no casual visitors, likely because of the more obscured

location behind a fence beside the sidewalk.

## Conclusions

The 2019 field season was a success based on the site observations and interviews conducted. In-person visits to the sites provided key information, opportunities and

experiences that would not have been able to be obtained elsewhere, such as tree location and health, as well as community participation. The sites were selected for their different approaches to tree tending and harvesting, with benefits and challenges present for all of them. Many volunteers mentioned the social benefits of tree tending and harvesting, while municipal actors expressed more reservations regarding maintenance and public health. Rather than selecting one model as the best, it is valuable to consider the context of UFT developments, and then select the opportunity which best applies. A community orchard may be socially and ecologically viable in one community, an edible naturalization planting may work better in another, or in some cases, not planting UFTs may be the best choice.

### **Additional Learning Points**

- A variety of models in addition to orchards exist in cities, allowing multiple ways to include urban food trees.
- Urban food trees require specific tending and provide unique benefits and challenges.
- Urban food trees provide site-specific opportunities for public engagement and learning.
- Urban food trees are affected by local environmental conditions in addition to community perspectives and recreation.
- Interest in urban food trees is frequently ahead of broader policy.

### **Acknowledgements**

I would like to thank the Canadian Tree Fund for their support funding my field work in 2019 through the Jack Kimmel Grant. I would also like to acknowledge the kindness and generosity of the many research participants for sharing their time and perspectives on urban food trees.

### **Author Biography**

Janina Kowalski (she/her) recently completed a PhD in Human Geography at the University Toronto. Her thesis research focused on the governance, accessibility, and human-nature interactions of urban food trees. She is passionate about urban trees and ways to make cities more resilient and equitable. Since 2017 Janina has been honing her fruit tree tending skills by volunteering at a community orchard in Toronto.

Appendix A: Species Planted at the Field Sites

<b>Common Name</b>	<b>Botanical Name</b>	<b>Calgary</b>	<b>Edmonton</b>	<b>Victoria</b>
Apple	<i>Malus domestica</i>	X	X	X
Bay laurel	<i>Laurus nobilis</i>			X
Blueberry	<i>Vaccinium angustifolium</i>		X	
Cherry (Sour)	<i>Prunus cerasus</i>	X		X
Cherry (Sweet)	<i>Prunus avium</i>			X
Chestnut (Chinese)	<i>Castanea mollissima</i>			X
Choke Cherry	<i>Prunus virginiana</i>		X	
Crabapple	<i>Malus domestica</i>		X	
Currant (Black)	<i>Ribes nigrum</i>	X		X
Currant (Red)	<i>Ribes rubrum</i>	X	X	X
Elderberry	<i>Sambucus nigra</i>			X
Fig	<i>Ficus carica</i>			X
Gooseberry (American)	<i>Ribes hirtellum</i>		X	
Gooseberry (European)	<i>Ribes uva-crispa</i>	X		
Goumi	<i>Elaeagnus multiflora</i>			X
Hazelnut (Beaked)	<i>Corylus cornuta</i>	X		
Medlar	<i>Mespilus germanica</i>			X
Mulberry (Black)	<i>Morus nigra</i>			X
Pawpaw	<i>Asimina triloba</i>			X
Pear	<i>Pyrus domestica</i>	X	X	X
Persimmon	<i>Diospyros kaki</i>			X
Plum	<i>Prunus domestica</i>			X
Plum (Damson)	<i>Prunus insititia</i>			X
Quince	<i>Cydonia oblonga</i>			X
Saskatoon Berry	<i>Amelanchier alnifolia</i>		X	X
Sea buckthorn	<i>Hippophae rhamnoides</i>			X
Shipova	<i>Pyraria irregularis</i>			X

1- This is a broad overview of the species at the sites due to the variation in species and cultivar information across sites. This table is an aggregate of all the sites located in the selected city.