Ecological Colonialism and the Impact of the ‘Englishman’s Foot’: A Literary Ecology of an Invasive Species

by

Meaghan Elizabeth Sych

A thesis submitted in partial fulfillment of the requirements for the degree of

Master of Arts

In

English

Department of English and Film Studies

University of Alberta

Abstract

This thesis is a habitat study of *plantago major* or broad leaved plantain. Brought to North America sometime before the 1700's, it was nicknamed Englishman's Foot by the Indigenous peoples who watched it walk across their lands with the colonizers. Taking Laurie Ricou's model of a habitat study to read the plant actively as text, I want to "enter into the process" of the language of the non-human world which will be a journey that moves from "image hunting and archiving" to "native plant as *text*" (*Salal* 12). Using a braided approach to this process, I have encountered plantain as text, but also as kin, and the personal experiences I have had with it have changed my perception not only of the plant itself but have grown my understanding of the ways in which nature(s) around me exist, thrive, circulate, and cycle. Understanding this invasive species as something more like Robin Wall Kimmerer's name of "good neighbour", this thesis explores how to live more fully on and within our more-than-human relatives and "to take care of the land as if our lives and the lives of all our relatives depend on it" (*Braiding* 215).

Acknowledgments

This thesis would not have happened without the support of Dr. Sarah Krotz and Dr. Mike O'Driscoll. Thank you both for your encouragement, support, and ethic of care over the last two years. Thank you to Annett Gaudig-Rueger for her help and support as well!

Much love to my children for distracting me and dragging me outside to smell the flowers and listen to the birds (and collect rocks). I couldn't have done it without Mark Sych and Mary Oakwell and all the co-parents who loved my children while I was hiding in front of my computer or going on plantain-search missions.

Table of contents

List of Figures

Leaf One: Introduction

There was a plant that sparked my interest. A plant that we read about in a Habitat Ecologies course that introduced me to the term ecocriticism. A plant that Alan Bewell discusses in the Introduction to his *Natures in Translation*[1] that captured my imagination immediately. A plant that was so obviously not North America's that it was given its own unique name by the Indigenous peoples here. They didn't recognize it and they could see it trace the road the colonizers took across their ancestral territories. Linnaeus named this plant *plantago major* in 1753 allegedly because it grew on roadsides and "its smooth, cool leaves offered relief for sore feet, a common affliction when walking was the usual way of traveling" (Mitchif 250). *Planta* in Latin means "sole of the foot" which could either refer to the flatness of the leaves, or perhaps that it was used to treat sore feet (250). Firstly, it shocked me that a group of people would know all the plants in their own ecosystem well enough to point to a newcomer and say, "You weren't here before" as I do not know all the plants around me well enough to name them all. Secondly, it filled me with delight that the name they chose was Englishman's foot or white man's foot. The most established reason for this name was that *plantago major* followed the white men as they tramped across North America, and if you wanted to find them, just follow the plantago. *Plantago major* usurped and replaced the native version of plantain, *plantago rugellii* as the most common plantain in North America. Rugelli is still found in Virginia at least (Free). After reading Bewell's discussion of this plant that walked across the land with the white man, what

[1] Interestingly, it's pronounced "Bule" and not "Be-well." Who knew.

astonished me most of all was that on a walk in the river valley in Edmonton, our professor, Dr. Sarah Krotz, was able to point us to the plant, living and growing right in front of us. This famous plant (if it's in a book, it's famous, yes?) grew right in my own city, in front of me, in a place that I had a connection with. I immediately broke off one of the seed spears (or spikes) and put it inside the pages of my notebook. It didn't exactly press, but it dried, and I stuck it on my bulletin board for a solid six months before I floated the idea to Dr. Krotz (Sarah) of doing a habitat study of it as an MA thesis. (My habitat guide for her course turned out to be the wood frog, which was not my bosom friend kind of habitat guide, not what I would have chosen for myself, but which taught me so much in spite of my initial distaste. Boggy, slimy things, frogs.)

As an immigrant settler to Canada broadly, and Alberta specifically, I thank the Indigenous peoples who have lived here since time immemorial for letting me inhabit space here and for allowing me to make my home in *Amiskwacîwâskahikan* next to the river *Kisiskâciwanisîpiy*, where I love to walk. I moved to Alberta when I was 7 years old, and have struggled with its weather, its open skies, its flatness but have come to realize its worth now as both my home and the home of so many others. It is beautiful in its own right and I am thankful for all of its gifts.

In this first section of the thesis I will explore Bewell's theory of "natures" and how *plantago major* illustrates this idea. I will introduce and discuss Laurie Ricou's understanding of a habitat study (and various other interpretations of a habitat study) and how I have chosen to conceptualize it for this project in both the format and content of my thesis. Central to this thesis is also the original contrast or conflict that grasped my imagination: that of native versus invasive species in the colonial backyards of North America and explain how my understanding of this 'versus' was rendered more complex as my research continued.

Bewell introduced me to both the idea of colonial botanizing and to the plantain itself, as stated earlier. In the introduction to *Natures in Translation* he lays out his thesis that he understands nature "during the colonial period as being the site of intense political, social, discursive, and material struggle" (7). It is so complex for me working backwards now, after so much other reading on ecological colonialism and botanical colonialism, to remember what I found so profound about the information he provides. But it was groundbreaking (pun intended) for me two years ago, as he discusses the integral part that nature played in settler colonialism: "colonial settlers did not travel alone; they brought their own natures with them, and they helped these natures settle alongside them" to play a critical role in the "business of empire" (*Natures* 7, 8). For Bewell, nature is not a constant, it is "the historical product of that place and time" and the arrival of the Europeans in North America along with their cattle, their agricultural designs, and their way of living was a settlement as a biological event, not just a human event (11). (Alfred W. Crosby in *Ecological Imperialism* discusses this in further detail, but we will get to him later.) Bewell states, not totally accurately, that "every time a newly introduced plant rooted itself in a new place, whether that plant was a cultivated plant or a weed, it replaced a nature that had preceded its appearance" (16). This one-to-one relationship isn't quite how Crosby describes it, nor is Bewell totally decided in his statement of the "local and indigenous natures" as being "largely stable and isolated" up until the arrival of the Europeans (17). For him, the well-balanced ecosystem of New Europe (as Crosby calls it) did not get re-possessed by the settlers, but translated into something else in their colonization. Bewell seems to assume that nature in North America (or the natures in North America) had been stable before the arrival of the colonists. He talks again later of the common "assumption of nature's stability and permanence" which was contradicted by the knowledge that "Nature had always moved," and had "been

travelling for a long time. On winds, rivers, and tides, or in the stomachs, fur or feathers of birds and beast" (24, 22). What happened in the colonial period was a large-scale, often deliberate (though sometimes accidental) and destructive implantation and replantation. The perception of stability and permanence of the North American ecology is not what ethnobotanists like Mary Siisip Geniusz tell us about their understanding of the nature they live within. Bewell describes the "Indigenous nations that watched as a familiar nature that they had always known disappeared before their eyes" and this description is partially accurate, as the plains became farms, and their buffalo became extinct, but the millions of Indigenous who lived in North America weren't quite as isolated and immobile as all that (18). In *Plants Have So Much to Give Us, All We Have to Do is Ask*, the Cree/Metis ethnobotanist, Mary Siisip Geniusz says, rather, that "since people have gone back and forth for millenia, the plants must have done the same. Whenever medicine people move they make sure the plants they are going to need come with them" (25).

When we saw this plant on our walks in the Edmonton River Valley, it felt almost as if the hand of history, or perhaps the foot, had planted itself in my own corner of the world and let me see the ways I was connected to Europe, to the history of colonialism and to what Bewell calls the "biological footprint" left on the land (19). Bewell oversimplifies what he sees as Crosby's thesis by saying "Ecological balances that had been built up over vast periods of time were often destroyed in a matter of decades by the introduction of a single new species of plant or animal" (28). Crosby would say that it was not quite this simple. It was an entire ecosystem and way of life that was brought from Europe to the "New Europes" that displaced the ecological balances of North America, not one species here or there. What we will learn about *plantago major* (and by extension many of the Old World species being brought along in pockets and

cattle feed and seed orders) is that there was nothing inherently biologically superior about them. The reason they survived/thrived/took over this land as well as they did is that "they had adapted themselves over generations to living in circumstances where land was under cultivation… indigenous plants were thus at a considerable disadvantage to their foreign competitors in the struggle for cultivated land" (Bewell 29). Plantain was perfectly suited to being trampled on and translated in its new living space, and as Mary Siisip Geniusz says and other ethnobotanists echo, some Indigenous nations, while recognizing it as a newcomer, saw it as a useful and helpful healing plant. It could almost seem like this was what the colonizers had set out to do, since they had the "goal of collecting, redistributing, and managing anything that was 'useful' in nature," but this isn't quite the same as the Indigenous way of being described in *Plants Have So Much to Tell Us* that utilizes whatever is there (26). The "exchange and transfer" that Bewell describes as the project of "biologically refashioning the globe" is an active, and somewhat reckless and inconsiderate, take over, rather than use of what is already there (26). As Crosby says: "the sun may have set on the British dream of a global empire… it still never sets on the empire of the dandelion" (qtd. in Bewell 7).

This begins to touch on my confusion with, and the complexity of, the idea of invasive species versus native species. Bewell seems to vehemently despise the idea of incoming species and their almost inherent colonial project (as if it is the plant itself that walked across the continent to pollute our green lawns with their wide leaves), while many ethnobotanists have a much more gentle (and even welcoming) understanding of those plants that came in with the white man and their cattle.

As with my habitat study of the wood frog, I have cultivated a very personal interest in and interaction with *plantago major* in my daily walks, travels across Canada, and travels to

England. I have attempted to cultivate it from seed; I have taken pictures of it in various locations from Vancouver Island to the Isle of Sheppey, UK; I have drunk it as a tea, I have tattooed it across my ribs; and I have absorbed it into my life. These personal experiences have changed my perception not only of the plant itself but have grown my understanding of the ways in which nature(s) around me exist, thrive, circulate, and cycle. I have thus broken this thesis into two separate kinds of writing. The academic writing portions are like the flat, foot-like, ribbed leaves of *plantago major*, in "regular" font, while the personal reflection portions are like the tall, noticeable seed stalks that stick up above the green grass (or white snow) in italics. It feels important to distinguish between the two forms of writing in a habitat study of a plant because there have been two different research approaches. I have done formal academic research into the biology of the plant, where it lives, how it grows, how it spreads, and who has referenced it or used it. I have also attempted to grow it on my own, I have looked for it on walks by myself or with my family, and have learned things from it that might be labelled as more personal than academic. A habitat study, à la Laurie Ricou (author of *Salal*, one of the central texts of our Habitat Studies course and this paper), is a thing where "you must be ready to walk out and listen—somewhere the other is speaking." He invites us to "break away from what you thought literary study was, lose yourself, and then find your way back by becoming poet" (Disturbance 163). The literary must still be there, and so must the biology, and that is all very important, but I felt there had to be a way to write the walking out and the listening. So the italicized portions might be designated the 'becoming poet' of the habitat study[2].

[2] Interestingly, I have created a literary ecology in this paper without defining the term as a term or practice and I realize that I should do so. Literary ecology as a term was created or first used in 1974 by Joseph Meeker in *The Comedy of Survival: Studies in Literary Ecology. Toward a Literary Ecology: Places and Spaces in American Literature*, published in 2013 is an anthology of essays that all use the literary ecology methodology. In her review of the anthology, Rachael DeWitt explains the term as a "model of literary analysis, based on ecology" that "focuses on interconnections between people, places, and nature, within and between texts" (501). The "practice" of literary ecology is shown in each essay in the book by

Seed One: Cross Canada Plantain

Finding plantago major *in certain places is even more astonishing than not finding it in others. I see it in the cracks of my own driveway, but not along the dirt path next to the North Saskatchewan River near the Zoo. When one is looking for it deliberately it is nowhere to be found, but when one is just casually walking around, it's seen everywhere*[3]*. I had to actively search for it at the University of Alberta farm across 122 street (the piece of land closer to the Whitemud Creek) and pounced on it when I did find it. Picked every stem I could find in that spot, which was only about 4-5 spears. This was around July, 2023 perhaps? I had a project in mind of trying to germinate and grow it in a pot to see if I could watch it, nurture it, cultivate it. Perhaps this was a strange thing to do with a weed.*

Once I picked the stems, I let them sit on the glass table in our backyard for several days in the sun and rain. When I finally had time to deal with them, I used my hands to pull the seeds off the stalks, and rubbed them between my palms (a movement that I felt has a proper term, but I could not for the life

---

"approaching the text as an ecosystem, interpreting it based on the relationships represented" (501). For Sarah Krotz, this is taken a step (one Englishman's foot length?) further in that the beginning point is not a text, but a non-human being and "the literary comes afterward, in the form of ecologies of texts that coalesce around each non-human being, highlighting the myriad ways in which writers have named, framed, described, reflected on, and related to them" (Lichening). As she says in "Migrations" (which is potentially the most lovely thing I've read all year, sorry to all the other authors out there), words and habitat are irrevocably and ecologically entwined: "Words contribute to the noise of our daily lives, just as sandhill cranes and garbage trucks do, and, like our walls and gardens, they form structures that bind us to some species and separate us from others. Words entangle us with our environments" (*Migrations).* And so, a literary ecology of the plantain as I have written it is a collection of words and thoughts centered around *plantago major* while noticing and appreciating how others have thought about it and written about it.

[3] Interestingly, this reminds me of the story that Leigh Joseph tells in the *Ologies* podcast about Devil's Club. When she is walking to harvest the plant, she sees it nowhere, but as soon as she makes the decision to return without harvesting it, it seems to be everywhere. Perhaps on my walk, the spirits of the earth weren't happy with my decision to collect plantain to force-grow it in a small pot in my backyard. They may have been right, as my attempt to force-grow was a failure.

of me think of it without the power of google: SCARIFY!) and then once they were (sort of) husked, shucked (scared?) I planted them in a pot and put them in the sun next to the sweet peas we planted in May (please note, those seeds needed soaking). It has rained and sunned and rained and sunned on them, but so far no plantain.

Other spottings of the plant: I see it along the unofficial path along 51 avenue, next to the floodplain, next to the fields, but it is squashed, flat, the stems crooked and sideways as others have stepped on it on their way along. I saw it in Brentwood Bay, on Vancouver Island, at the top of a small hill near the Bay where I grew up. Where we (my whole family) and I used to walk to on Christmas Day, to look at the harbour. Where the Mill Bay Ferry docks, where so much of what I love has been and gone. Where we spent a whole Christmas break (just my mother and I) in a small cabin where the water licked up to the edge of the tiny deck. I want to go back there all by myself, but have never managed to find it again. How much more I would appreciate the view of the ocean and all the islands around it, which I couldn't name if I tried. I didn't have time to take a picture of the plant there, as we were rushing to get to our kayak appointment on time. After the kayak trip, everyone was wet, tired, hungry and some (Sebastian and Mark) anxious to get back to the relative familiarity of the motorhome. I had a mini meltdown about trying to make everyone happy and failing, and we split up to try and accommodate everyone (I took the girls to the pub to eat french fries and Mark and Sebastian went back to the motorhome to change and regain equilibrium).

I saw it in Vancouver, I think...though now I'm not sure. I didn't record it in a photograph and so I have nothing to go back and point to as evidence. I do have literary proof that it exists there though, as Rita Wong mentions it in a poem from her collection undercurrents. *The poem before the plantain poem*

is about lavender growing in a traffic circle where it's not supposed to be (kind of like a weed), and the poem after it is about ye olde Ricou favourite, salal! They form a mini collection within the book that Wong calls "medicines in the city." The plantain poem is so short and pithy (kind of like a weed) that it is hard not to quote the whole thing here...maybe I'll just quote the whole thing here:

found in fields from Halifax to Vancouver

plantain's nickname is white man's footprint

for the way it gets everywhere

yet there is also native plantain

to poultice your cuts & rashes

to heal the sores of everyday life

plantain sits and spreads

mown down & ever growing

overlooked neighbour

gently toughing us all out (Wong, 38)

*And at the bottom of the page is a small pen drawing of something that looks a bit more like ribwort plantain honestly, with a short squat seed pod at the end of a long stem, whereas broad-leaved plantain's seed spear is more, well, spear-like (see Figure 1.1). Wong distinguishes between the native (*plantago rugelii*) and invader(*plantago major*); that one "gets everywhere" and the other, the native one, is a healer. But which one "sits and spreads" and is "mown down" (trampled perhaps)? Is it the native or the spreader? Or are the two conflated for her? I love the idea of an "overlooked neighbour/gently toughing"*

out the rest of us. (Robin Wall Kimmerer also calls plantain a neighbour, a good neighbour, that her people came to trust, but we will come to her later.) Placing "gently" and "toughing" right next to each other creates an image of a patient but strong little fighter who can be mown down, trampled, walked on but keeps coming back. It's an image of a self-sufficient plant, sitting and spreading but asking nothing from us.

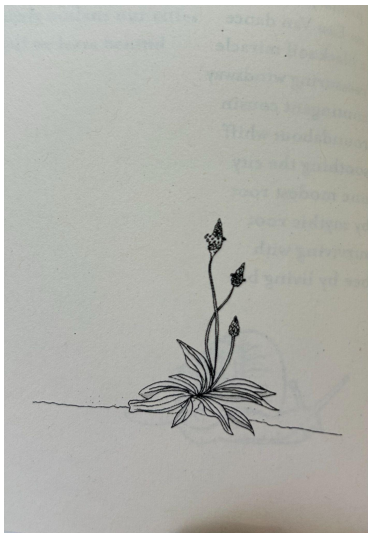

Fig. 1.1 - Plantain Illustration in undercurrents

I saw it in Revelstoke,B.C., next to Gallagher Lake, where I lost my sunglasses when my son Sebastian pushed me gleefully off the platform. Plantago major *was not in the lake, but in the gravelly grass next to the bathroom block and the playground. Poking up alongside dandelions and clover, amongst the rocks near the parking lot where people rented kayaks and played mini golf (see Figure 1.2).*

Fig. 1.2: Plantain in Revelstoke, B.C.

I suspect I saw it in Lake Louise, but I don't remember that now either. We went for a mini hike along the Bow River there, but I was more anxious about Sebastian falling into the river as he threw stones to see them rushing past, than about identifying plants. I have pictures of it at Craigellachie, BC, the place the last spike was driven into the Canadian Pacific Railway in 1885. It was our second visit to the site. The year before (2022) a train had roared through right as we reached the plaque of the last spike and Sebastian (then three and a half) was enthralled. I have several pictures of him standing right next to the wire fence as the train sped past him. This year was less noisy, but I found teeny little plantagos growing out of the gravel (see Figure 1.3). That this plant that had crossed the country on the feet of white men was found at the spot where the last iron foot of the cross-Canada railway was implanted...seems to illustrate the colonial metaphor even further. A plant and an iron spike walk into a country...

Fig. 1.3: Plantain in Craigellachie, B.C. near The Last Spike

A dramatic sighting in Sidney, BC, within sight of the blue fish market building, near the scuba diver sculpture that has been there since I was an infant. I have pictures with that scuba diver at various different ages in my childhood. It was right near the site of the old Sidney hotel where we used to go for brunch with family and friends (where I burnt myself with hot chocolate at the age of...5 maybe? It's an apocryphal family story). I was following Sebastian up and down over the rocks by the Salish Sea and it was poking precariously out of the giant stones (see Figure 1. 4). It felt like a hug, a welcome home, a gentle friend wishing me hello. As a child who moved around frequently (I think the longest we lived in a house was 2 years), I have many memories of many different places, but not a strong sense of myself in any one of them. The constant decampment and attempt to create a new life in yet another new space led to a sense

of detachment, I think, from a sense of home. *As I get older, visiting places that I used to live, and seeing familiar plants or birds that were key to my life then (blackberries, herons, seagulls, ferns, tiny tiny daisies) is a shock of recognition. These non-human things remind me of interactions I had as a child, or in other parts of my life that were important—or even of other places where I have found the same creature. A crocus at Wakehurst in Sussex sends me back to the garden in our front yard in Brentwood Bay, the taste of garden, freshly-shelled peas puts me on the back step of my Grandma Clara's house in Regina, Saskatchewan; these interactions with the land are a thread throughout my life that connect me to the many many places I have lived and been. Plantain has now become one of those connective* beings *that I can call my own.*

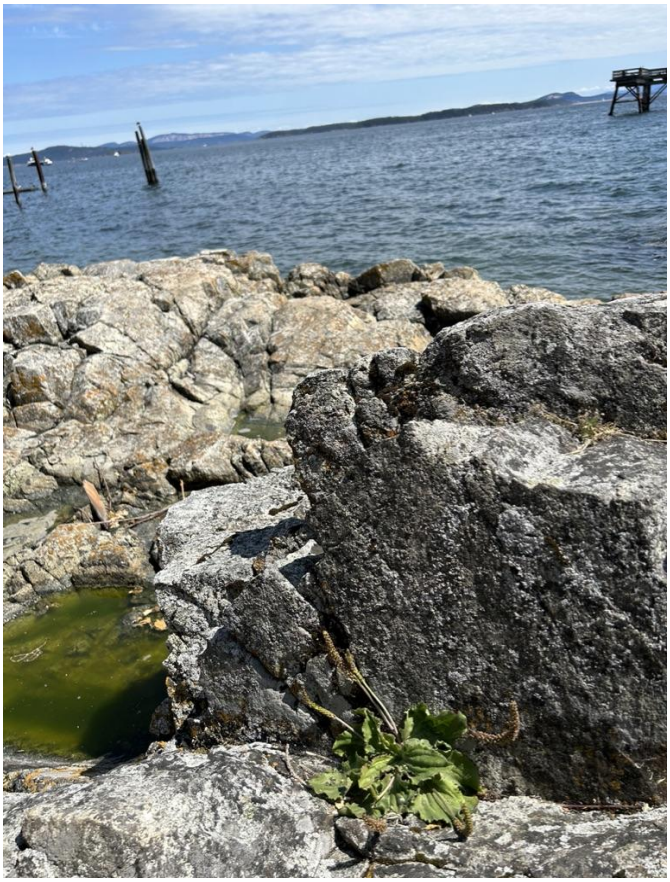

Fig. 1.4: Plantain in Sidney, B.C. near Diver's Point

I definitely didn't look for it in England on my trip to the Millenium Seed Bank. I didn't even think to look for it, even though it was the reason I was there. Kind of. Looking at the seeds in the seed bank was the main purpose, and I didn't see any plantain creeping around Kew Gardens at Wakehurst on any of my walks...but was I looking for it? Was I paying attention? Did I see it along the path on my way to see the River Ouse in Sussex? I was much more focussed on the trees, the birds, the holly bushes, the tiny creek that was the River in that spot. How much energy it takes to pay attention to all of nature at once. Would I have seen other plants more specifically if I had been looking for Englishman's foot in the Englishman's countryside?

Would making a salve for skin issues count towards a thesis?

No.

Too bad. There are lots of youtube videos about plantain salve. Though some use ribwort plantain instead of broad-leaved.

Leaf Two: Habitat Study

Taking Laurie Ricou's works as a starting point for a habitat guide is sometimes counterproductive. Reading through both *Arbutus/Madrone Files*[4] and *Salal* reveals how he is attempting to create and write and read and *unify* a particular area through one plant (in *Arbutus/Madrone* through the Arbutus tree and many features of the Pacific Northwest, and then in *Salal* through a leafy green thing that lives in the understory). My project feels much different in the way I am reading *plantago major* as a plant that walked across an entire nation or continent, not in a unifying kind of way, but in a gently conquering sort of way. Robert Bringhurst[5], in a review essay called "The Critic in the Rain," critiques Ricou's methodology, particularly in *Arbutus/Madrone Files* for his lack of personal immersion in the landscape that he is supposed to be "reading." The thrust of the essay is that Ricou was not in fact, out in the rain, staring at the Arbutus trees enough. *Files* is particularly literary, and I think Ricou spends more time "in the field" while writing *Salal*. I find myself leaning more towards the field and away from literature, and need to actively look for written texts that mention plantain, rather than just describing it, the places I've found it, and the ways it has been used (or the ways it has served us, depending on your position.) Having said that, Ricou's basic desire for *Salal* feels familiar: he wanted to write something that would "resonate…with the dream of habitat, of living at once simply (with one bush) and complexly (within and amidst all that plant's connections) in place"

[4] Interestingly, this was one of the books I first worked on/with at NeWest Press as a teenager. And when I say worked on or with, I mean moved around in the inventory room, mailed out to bookstores, or counted for inventory purposes. Otherwise I would have had no idea how to pronounce Madrone. I love Arbutus trees, having grown up on Vancouver Island.

[5] Interestingly (!) Robert Bringhurst is the author of an article called "Singing with Frogs" that I used for my Wood Frog habitat study paper a couple of years ago. Polyphony of voices and song and frogs being an aural animal etc etc.

(2). The project is a record of the time he spent "looking—foraging perhaps—watching and listening for nourishment, wherever it might be uncovered," in what he describes as a "process, a complex of connections" which is exactly how I encountered plantain, particularly in the personal reflections included in this paper (Salal 2-3). Among other goals, he professes to want to "enter into the process" of the language of the non-human world which will be a "journey" that moves from "image hunting and archiving" to "native plant as *text*" (12 emphasis in original). This obviously only sort of applies to my process, as the plantain is most definitely not a "native" plant, but what does that even tell us? What is it about salal being native that is so important that differentiates it from plantain that is not? Is this a settler-colonial mindset that privileges that which was already here over that which has been brought from the Old Country, perhaps an attempt to right the wrongs of colonialism? More about this later in discussions around invasive vs. native species. Is it a post-colonial space where the logic of colonization persists even when the formal days of colonialism are supposed to be over?

What is similar between salal and plantain is their ordinariness; Ricou calls salal "an ordinary shrub" and not something remarkable like an orchid or a stately tree, but "an unremarked, straggling, loosely flowered member of the Ericaceae/heather family" (15). Plantain is also "unremarked" and unremarkable, a plant that is described as living in ditches or along footpaths, or "areas disturbed by man such as cultivated fields, lawns, roadsides, and *waste places*" (Bassett 9, emphasis mine). But from these waste places, when we keep "an eye out for the small, the unremarked, the generally unnoticed" (Ricou 16), we are given an abundance that we never thought possible. He uses the word "unremarked" again, as if to remind us that there is so much that goes un-looked-at in the more than human world. Further similarities between salal and plantain: salal is particularly resistant to fire due to its "massive and robust rhizomatous

system" and comes back even more strongly after being mown down or scraped off (47). Plantain, in a twist no one saw coming, is particularly resistant to being stepped upon. Jannetje Groot, an academic in Amsterdam in a work entitled "An experimental study on the autecology of Plantago Major L," called it one of the "Trittrasen" or "tread plants," "occurring in vegetations much frequented by man, animal…especially in often and frequently disturbed areas" (6). The paper itself focused primarily on the germination of the seeds of *plantago major* and whether or not germination is "favoured by light" (18). After four years of observations of field plants, it was noticed that "seedlings were never found before the second half of April, no matter the climatic conditions of winter and spring" (35). She repeats later that several other scientists (I assume) had also made the point that *plantago major* is "one of the so-called tread-plants, well-adapted to withstand treading" or even "mechanical damage" (72). According to Daniel, the "Awkward Botanist" blog writer, in South Africa, another name for plantain is "cart-track plant" ("Ethnobotany"). In my research at Kew Library I came across a paper that discussed the "relative tramping tolerance" of different species of plant (I have it in large letters in my notebook, and wrote RTT! next to it for short). In this scientific paper, "trampling was simulated" by the means of a metal weight, "dropped from a standard height of 5cm" (Warwick 463). The gist of the experiment was that after having been trampled, *plantago major* reallocated resources to reproduction, in a sort of last gasp at survival. I am not 100000% sure how they do this, but I do understand that a limitation of the study was that the mechanical foot did not simulate the stepping motion of a human foot, but merely squashed the plants. It is fascinating to me that this kind of research was taking place in Canada in the 1970's, and about plantain specifically. That "vegetation, whether along roadsides, on paths, or on lawns, is often exposed to varying degrees of trampling stress", and that an experiment was created to test the "trampling

stress," is just magical (460). It brings back the image of plantain from Rita Wong, of plantain that "sits and spreads" at the same time. The good neighbour that is "over mown" but will tough us all out while we subject it to trampling stress. Taken together, this experiment and poem give us an idea of plantain that is so much *more* than just a humble cart-track plant.

Seed Two: Footplant

On a hike in Castlegar, BC, after being scared off from the shortcut (you could cut through the woods near our campsite to get to the trail) by the presence of a baby black bear, we reached the official trailhead. There was a small birdhouse-looking thing at the top of the trail, and when opened it revealed a small brush and a sign that asked hikers to brush off their boots before and after their hike to avoid transferring plants, bugs, and seeds, into and out of the trail. There is something so powerful about that. This is one of the ways that natures have always travelled then? Caught on pant cuffs, or moccasin soles? What seed husks or spores do I carry on my running shoes, or in the treads of my boots that I have no idea are there? When we get back to Alberta, I am much more conscious of the green things (though sometimes they are brown, depending on the season) that are stuck into my old, half dead, pinkish running shoes after my daily walk at the farm. Am I the reason that my husband's pure grass is becoming sprinkled with dandelions? Did I inadvertently "plant" the plantain into the cracks of our driveway?

Growing update (August 2023): Why is a plant that spreads all by itself so difficult to propagate purposefully? Wild plants, from "disturbed" landscapes/ habitats, do not live in pots? Ignoring it for

several months, my husband brings the pot out to me in the front yard and there are LEAVES! We bring it into the house to baby it and keep an eye on it. I water it when it seems dry and now there seem to be moldy patches on the leaves. Returning it outdoors doesn't remove them. So far no seed stems have arisen, just the telltale ridged leaves. From what I remember, this is consistent with the study that Groot did in Amsterdam: leaves would grow if the plant was propagated out of season, but the seed spears, the parts that can keep the plant walking across countries, will not grow.

I saw it in Peace River, as soon as I pulled up to my best friend's house. After a 6 ish hour drive, I got out, stepped onto the driveway, and there it was (see Figure 2.1). It had waited for me? Followed me? Preceded me? Pointed the way here? Would I have noticed it before now? Even this far north, driving up through the cracks in the driveway, all along the sidewalks to the path down to the river. Not by the river, not along the banks, just in the pavement. What does that mean? My best friend says "Oh yes, they love living in a disturbed habitat." And that word explodes my imagination. Disturbed: as in disrupted, but also...slightly dark and mad? In Laurie Ricou's essay "Disturbance Loving Species: Habitat Studies, Ecocritical Pedagogy, and Canadian Literature," he sees the habitat itself, "the system of animals and plants, water and soil" as disturbing *the emphasis on "place" in Canadian literary criticism (161). The other of Habitat studies is "a shrub (talking), a bird (speaking)" and we learn we need to "become communicators and to be in community with grosbeak and sand verbena" (162). This act of being in community with a plant is, for Ricou, "a disturbance of the conventional English literature course" but the ultimate disturber is the human animal ourselves and our disturbances "allow for invasion" which is often the replacement of a biodiversity with a monoculture (163, 164). But he imagines disturbance to be potentially a fruitful thing—can we disturb our own assumptions about our place in the world by*

reading plants and listening to birds? Can we push or disturb the boundaries of literary studies by following our noses in the forest of weeds and grasses and creatures? Do I have any idea what other grasses/plants are mixed into people's driveways besides plantain? Is that the next project? What else grows next to Englishman's foot? How complex it is to find this out in winter time. I googled: what grasses grow near me and what grows next to plantain in Alberta? If it was summer, I would take pictures and identify the leafy things with my iphone plant identification app. Who do I ask when it's winter? Is there milkweed? Pineapple weed is what Sarah suggests, but when I search for pictures, I don't see the red stems that seem to appear in the picture of my best friend's driveway. I look through a wildflower book[6] I got at Wakehurst on my first trip to England and study the drawings, wondering "does that look familiar?" In it I find drawings of downy oat grass and that looks similar to my "confetti" plant (stay tuned for that). Dandelions of course grow nearby. I know I've seen plantain near wild rose bushes, and amongst plain old grasses, likely clover and definitely thistles (my son calls them "histles" and I refuse to correct him. My daughter says it's from a Winnie the Pooh book they read at Nana's house). Does chicory grow here? I remember seeing that along the road on Vancouver Island and looking it up with my phone and then having a long conversation about how chicory was used to make ersatz coffee during the war and the meaning of ersatz. It really just means "in place of," which my husband didn't realize. But I am not sure if I've seen it here or not. This process of learning my own land continues to be humbling. There is so much

[6] Interestingly, many of the illustrations in it were done by Agnes Fitz Gibbon and taken from *Canadian Wild Flowers* by C.P.Traill, the eminent Canadian lady botanist and writer who seems to pop up over and over again when studying the settler experience in Canada (or botany in general). My mother has been fascinated by her for years, and she is a favourite writer of Sarah's as well. I read the introduction to the Kew book to see if anything is relevant for this paper and I find a passionate plea for a return of meadows and biodiversity, and a discussion of the selective burning practices of "American Indians" and the grazing of bison that helped to "stimulate diversity" (Ikin 8) which I already knew about!

I don't know. I finally alter my google search to "common grasses of Alberta" and that reveals pictures of sheeps fescue, tufted hairgrass (THAT's the confetti plant!), big bluestem, prairie junegrass (definitely seen that before), blue grama grass, blue oat grass, feather reed, green needle grass, so many that I've never heard of, but they all look familiar?

Fig. 2.1: Plantain in Peace River, A.B.

I see tiny tiny tiny plantago, like squirrel-sized versions, poking up from the pavement cracks in my alley. Along my usual route to the farm to try and get to some wide open spaces, I see it, and almost think "awwww," as it's such a miniature version of the huge plants I saw in Peace River. I imagine them growing growing growing, only to be squashed, stopped, arrested by the wheels of a car or bike, or the feet of a white man (how ironic) and then they have to start all over again. Given that it is currently September, I marvel at how little growth progress they have made. It will be cold soon and their chance will be over.

Trauma stops growth. Being stepped on impedes upward movement. But progress doesn't always mean up?

It's only the second week of fall semester and I feel weary and footsore. Wet every morning, so wet I see slugs, when I have literally never seen slugs in Alberta, slowwwly moving along the sidewalks. Sometimes squished flat already by faster footfalls. This morning I am bent almost double, piggybacking my son to his Nana's house. I hear the half-hearted rain drops and smell the divine smell of wet grass. After I drop him off, I take the LRT to the university and I see the stalks of the plantain poking up through the grass before I see the leaves this time, as they are so intertwined in the grass outside the Humanities Centre at the University. Usually it's the leaves I see, pushing the grass apart, and then the stalks. Today it was backwards.

Do I, also, take the plant with me once I step on it? Am I one of the English(wo)men who have trampled the plant across the continent?

I dream of finding an account of some settler who wrote in a journal or letter "I picked and dried plantain seeds to take with me to the new land. They are invaluable for x and y medicinal reasons and I need them with me." But I haven't yet looked for such an account. And I don't know where to start at this early point of my research. It is only fall.

Given my obsession with both walking and plantain, it sort of hits me on the side of the head that the idea of Englishman's foot is related to the idea of footsteps/footprints and the practices of walking and thinking and walking and listening. In "Out of the Field guide," Ricou discusses listening as central to a habitat study, or ecological understanding. Coming from Mike O'Driscoll's class on listening (where I wrote a paper about listening to the sound of my own footsteps) I should have thought about this already.

Stopping to stare at a plant in the cracks of my driveway, or my best friend's driveway, or along the hopscotch path at my children's school, what am I listening for? Or to? Does the plantain SAY anything? Do the spears make a sound in the wind? I have to walk to find it, to find the plant that was walked across the continent. I have to take walks. I have to tramp and tromp and make footsteps and footprints. This reminds me of a reading from Sarah's class (which I used in my paper on walking for Mike's class) by Dwayne Donald on the "ancient nêhiyaw (Cree) wisdom concept of wâhkôhtowin *, which refers to enmeshment within kinship relations that connect all forms of life" (55). That through walking "as a life practice, the wâhkôhtowin imagination can be activated" which awakens us to the possibilities of "kinship relationality" between humans and the "more than human relations" that surround us (55). For Donald, there's a kind of pathos in walking, as, "when newcomers arrived, the story of ancient kinship relationality was gradually replaced by the emerging story of a Canadian nation and nationality" in an exploitative and resource extraction way (56). This narrative that he calls the story of "Progress" taught that "the needs of human beings, in the form of the growth and development of the Canadian nation and nationality, must always supersede the needs of all other forms of life (56-7). A life practice of pilgrimage and understanding relationality in our lives and our habitats sounds exactly like what I would wish for us all.*

Leaf Three: Urban Sightings

As a particularly urban plant, plantain leads me from Ricou to Liza Szabo-Jones, one of his PhD students. Her paper on urban habitat studies and the Norway rat suggests that we look at the non-human in cities, rather than just out in the woods and forests. Using Neil Evernden's theory on importance of the inter-relatedness of humans to their environment (which by the end of his essay has melded into just one full word: interrelatedness), she observes that the urban way of living that humans have gotten used to is a "nicheless" way of being: it excludes us from "participating in an ecosystem's natural processes." Evernden says that we need to compare ourselves to "another creature's inhabitation of our shared environment" in order to "realize our embodied limits" – but Szabo-Jones asks: which creatures would we study in an urban context, "pigeons, starlings, raccoons, jackrabbits, dandelions?" And, crucially, "what if those non-human city dwellers…are invasive or introduced species, living and shaping the environment through similar opportunistic strategies" to us, the humans? This speaks directly to my study of the plantain: the urban, "disturbed habitat" dweller that thrives on being trodden on and that opportunistically invades! Szabo-Jones says that through such a practice of "attend[ing] to how other organisms function in and sensorily engage with a territory, we create potential to understand what it means to be human." People's understanding of invasive species varies depending on which species we are dealing with – some create a violent rage in urban dwellers (see later notes on my stepmother's response to plantain, or my husband's feelings about dandelions) while others are allowed to exist in an "empathic cohabitation." One of those about which we feel empathy, I suspect, is the jackrabbit Szabo-Jones encounters in early March in Edmonton. She senses herself "in relation to the non-human world" as she is "simultaneously in and out of sight," in the shape of the jackrabbit she sees through the glass of the Timms Centre

for the Arts[7]. It is a very personal, emotionally laden description. She has to "lean closer to the glass, push my reflection further away," to see the rabbit sitting between the shrubs on the sidewalk. Other passers-by don't even look down long enough to notice them, but she sees this one through her reflection and reminisces about the others she's seen before, with dates and places described. To see a non-human species, a human has to be there too, but has to see beyond their own reflection, to take notice, to attend. Descriptions of humans relating to and connecting with the non-human world are often personal, descriptive, and emotional. As Szabo-Jones reminds us (through Evernden as well) the study of different species has to be interdisciplinary—"a loosely structured process of enquiry–with only a seeming hint of madness." Could this be how other natural historians, botanists, flower hunters, and habitat studies specialists feel? Only loosely structured, and slightly mad? With personal reflections peppering their writing, they can seem to be in and out of sight simultaneously[8]. Szabo-Jones wonders if the rabbit looks back at her, and as she steps back from the windows it "disappears into" her reflection - they are entwined, related, relational. This seems to go a step further than what Ricou does in his relationship with both arbutus and salal: he listens to them, listens for them, but Szabo-Jones sees herself in the rabbit, and also in this piece, in the Norway rat. What has she learned from watching the skittish creatures who change colours with the seasons and an invasive species of rat? What have I learned about myself through my habitat study of *plantago major*? I find many parallels in her discussion of the rat and plantain, where they came from, what they displaced, as if either rats or plants have more agency than merely trying to survive and make a living space

[7] Interestingly, she calls it the Telus Centre, but the Kriesel Lecture is almost always held at the Timms. They're right next to each other and both have big glass windows, so I can see why she would be confused.

[8] Interestingly, I am sure that the people who tap Lisa on the shoulder are Dianne Chisholm and Katherine Binhammer, two professors of my own who have been references for me on various occasions. They are all attending the Kriesel Lecture put on by the CLC, an organization I have worked for and where Sarah Krotz, my supervisor, is the director. It's all connected.

for themselves. Is the desire to survive a malicious wish? Is tracing their arrival in Canada a way of assigning blame?

One of the key ideas in Szabo-Jones's essay is about ecological literacy: "understanding the interrelations of communities as a complex interplay of human and nonhuman interactions" and this, for her, is especially important in an urban context where the human and non-human are often seen as separate communities. This complex interplay once again allows us to see ourselves as creatures, as plants, and not the other way around in a merely anthropomorphic way. We live in their world, not only them in ours. Szabo-Jones's paper led me to another key text of Ricou's: "Out of the Field Guide: Teaching Habitat Studies," which is essentially a copy of his syllabus for a Habitat studies seminar, with some "elaborations." [9] For Ricou, there is a whole world filled with other languages outside the English classroom, and these "other sources of information might be more important" and they urge us to be "good listeners" (347). To be a good listener means to "attend closely (beyond just *hearing*), with respect, and expecting to be differently informed" (347, emphasis in original). How exciting I find that phrase: expect to be differently informed, ooooh, shivers of expectation. Stephanie Bolster's quote makes more sense to me now than it did the first time I read it a few years ago (see footnote): "It's like waking up/to discover the language you used to speak/is gibberish" (347) because it isn't *enough* – the human language that we have all spoken for most of our lives is only half the story. "Maybe we need to listen for another tongue…how does the woodland skipper communicate?" (Ricou 349) What does the plantain say as it walks across fields and over ditches?

[9] Interestingly, one of the epigraphs for this piece is from Stephanie Bolster's poem "Many Have Written Poems about Blackberries," which I picked AT RANDOM from a giant book of Canadian poetry to do a close reading of in Sarah Krotz's habitat study course two-ish years ago now. And there it was waiting for me in the grandaddy of habitat study, Laurie Ricou's syllabus.

As stated earlier, I had never knowingly encountered either "Englishman's foot" or *plantago major* before my introduction to it in Krotz's class. Plantains to me were a kind of banana, and while I knew that Englishmen had stomped across this continent, I did not know there was a plant that followed them. Perhaps it is more well known to those who have been paying attention to the non-human world for longer than I have, but some of the most fun I have had in researching this plant has been reading the many different descriptions of *plantago major* from different writers and botanists. A favorite is by Maud Grieve, from her extensive tome, *A Modern Herbal*. This book began as a series of individual pamphlets she started in World War I on individual plants and flowers she was familiar with in England and was published as a full (enormous) book in 1931 ("Maud Grieve"). I suspect what I looked at in the Kew Library was one of the earlier individual pamphlets, it was a small booklet with only information on broad leaved plantain (and ribwort and maritime etc etc) When I returned to Canada I requested the fully bound tome from the library and the plantain information is almost the same as what I found in the pamphlet. She describes plantain as a "very familiar, perennial 'weed' and may be found anywhere by roadsides and in meadow-land" (640). Her description of the plant itself is the most poetic of any I have found so far: a "radial rosette of leaves and a few long, slender, densely-flowered spikes" with the leaves having "ribs" with a "strongly fibrous structure, the margin entire, or coarsely and unevenly toothed" (640). Grieve was interested in reviving herbs for everyday use, and so she attempted to use plantain in food: "the leaves are saltine, bitterish and acrid to the taste; the root is saline and saltish" (640). She was also aware of its colonial meaning in North America, as she says that both there and in New Zealand "it has been called by the aborigines the 'Englishman's foot' (or the White Man's foot) for, with a strange degree of certainty, wherever the stranger race has taken possession of the soil, there the plantain asserts its

claim to a hole, as though it were produced by their treading" (641). In my head I hear her reading these words in the plummiest of English accents, a rotund, bespectacled Miss Marple figure, marveling at the places the plantain has wandered to. She asserts that the plantain was indeed the plant that was discovered by "an Indian" (who was given great reward in South Carolina) to be able to heal rattlesnake bites (Elizabeth Simcoe writes in her diaries that it was in fact an African-American who won his freedom for this discovery, so I am unsure who is more accurate), but whether it was *plantago major* or one of the other subspecies, she doesn't specify. She seems to have scoured the history books for all knowledge of the plant, for she says that Pliny swore plantain would cure the madness of dogs, Erasmus that a toad "being bitten by a spider, was straightaway freed from any poisonous effects he may have dreaded by the prompt eating of a plantain leaf" (641). I can just imagine a toad's dread when he realizes he's been attacked by such a spider, its bulbous eyes growing more so, as he hops off to find a plantain leaf to munch on. Hopefully he knows where they grow. Even Crosby quotes Grieve in his description of plantain as he relates that "it was one of the nine sacred herbs of the Anglo-Saxons, and Chaucer and Shakespeare cited its medicinal qualities" (Crosby 169). Grieve is also backed by historian Ann Leighton who alleges that the Pilgrims relied "primarily upon knowledge handed down from the early Greeks and Romans" (Leighton 137) for their medicinal information. Erasmus fits the bill there, as long as they were trying to "physick" toads in New England. Leighton implies that the Pilgrims would have packed any herbs recommended in books like the *London Pharmacopoeia* (which was only available in Latin until Culpeper translated it around 1650) and mentions that "the knowledge itself was mostly over a thousand years old, and much of it should have been forgotten, such as various ancient historic remedies

having to do with worms and toads" – perhaps just like our friend the toad and the plantain that Grieve told us about (Leighton 156). It all seems connected.

Seed Three: Witchy Watchings

Another key finding about plantago major*, due especially to Maud Grieve's writings (she of the flowery descriptions and old maidenly spectacles in my imagination) is that it seems to be involved in witchy and magical goings on of some kind or another. Also known as waybread or its variant, waybroad, (derived from the Germanic, according to the Oxford English Dictionary), Grieve references the third book of* Bald's Leechbook *(an Old English medical tome). There is a recipe for a headache cure that seems mighty witchy in its makeup: "If a man ache in half his head...delve up Waybroad without iron ere the rising of the sun, bind the roots about the head with crosswort by a red fillet, soon he will be well" (Grieve 1931 5). Who or what a red fillet might be, I'm not sure, but crosswort is the plant* Cruciata laevipes *which has small yellow flowers and lives in the same ditches and "road verges" that plantain, or waybread did ("*Cruciata laevipes*"). And in the Miscellanies of Aubrey from 1696, if young ladies "were looking for a coal under the root of a plantain, to put under their heads that night" then they "should dream who would be their husbands" (Grieve 1931 6). Hunting further for "what grows next to plantain" I find a blog post by the self-professed "Awkward Botanist" that tells of how plantain was used in midsummer's eve rituals along with other "agricultural herbs" like mugwort and St.John's wort ("Summer of Weeds"). They were thrown into bonfires (he doesn't mention why, just that bundles of these*

herbs are thrown in) and are one of the foremost magical herbs in early Celtic fire ceremonies. Looking further into "waybread" or "wayboad," I discover that it was one of the plants that was used in the recipe for a "charm against a sudden stitch" which was believed to have been caused by the shot of an elf's arrow—when a sudden sharp pain in the side or muscle occurred with no obvious outward cause. It is wondered if these plants (feverfew, red nettle, and waybread, or plantain) were chosen for the charm because all of them have "vaguely spear-shaped leaves" (Slade). Moments of pure witchcraft, magic, and connection to the land are just wonderful and that leads me to ye age old question: WHAT DOES IT MEAN?!

Leaf Four: Escapees

In contrast with Grieve's poetic description of the look of the plantain, we can go to another piece I read in the Kew Herbarium/Reading Room: Jannetje Groot's paper, "The Experimental Study on the Autecology of Plantago Major." Her outline of the plant describes it as a "vigorous, short, abruptly ended rhizome and a bundle of long fibrous roots" with "leaves in a rosette at the base" which is a far less elegant word painting for those of us who do not know what a rhizome is, either abruptly ended or not (4). Groot claims that the name plantago comes from the Latin word "planta" "meaning foot-sole, and the leaf-form of *plantago major* would so much resemble a foot sole, that the old Romans as well as Linnaeus in the 18th century judged this to be the best name for the species…a plant striving for footprints (Plant-ago); she also mentions that the popular name in America, given by the "Indians," is: "the white-man's

footsteps" (5). This is not totally consistent with what Grieve says about why the plant is described as foot-like, and there are other stories which give other explanations. Nina Rønsted, in a PhD thesis about the molecular systematics of *plantago major*, agrees with Groot about planta meaning sole of the foot, but posits that the second part of the word "ago" hearkens from the word "agere" meaning "to stride" (Rønsted 20). Her explanation for plantago's name is that the Danish name of the genus is "Vejbred" which often grows "along roadsides, on trampled or compacted soil" which we know to be true (20). As previously quoted, *Weed Technology*'s article on plantain claims that in Acuna, "an 11th century Anglo-Saxon leech book, Alfric recommended plantain as a beneficial roadside herb. Its smooth, cool leaves offered relief for sore feet, a common affliction when walking was the usual way of traveling" which raises the question: was it named *planta* in reference to its application onto the soles of the feet, or for its resemblance to a foot-print (Mitich, 250)? There are also various and conflicting accounts of whether the plant is called "white man's foot" or "Englishman's foot." Crosby is the only author who credits a specific Indigenous nation with the "white-man's foot" moniker. In his notes to page 156 he says that "Henry Wadsworth Longfellow learned of this Algonkin name" for the plant, and used it in his poem, *Hiawatha* (named for a member of the Onondaga nation). I have not been able to find any other source for "Englishman's foot" in John Josslyn's writing (more on him later), or Leighton's book, but it is noteworthy that Grieve also traces this moniker to the Indigenous peoples of New Zealand. What I do feel a sense of great peace about is having discovered, in my meandering research on the plantain, the book *Early American Gardens: For Meate or Medicine* by Ann Leighton. I have taken it as a key text in my struggle to discover where and how *plantago major* arrived to the colonies. I first found it referenced in an article by Jessamy R. Luthin called "From Wanted to Weeds: A Natural History of Some of New

England's Introduced Plants" as one of her primary sources on how plants arrived in the "new world." Though Luthin mentions plantain as one of the "imported species" that "spread beyond the boundaries of colonial settlements to become the first of the region's naturalized flora," noting that it later became a "common weed," she does not provide its origin story in North America (141). So I turned to her source, Anne Leighton. Ann Leighton is the pen name of Isidore Smith, the "renowned garden historian, scholar, author, designer, and landscape architect" ("Who was Ann Leighton?"). Living in Massachusetts in the 1920's until her death in 1985, she was interested in both New England history and gardening and combined these two things into three volumes about Early American Gardens, this being the first. From what I can tell, the last printing was in 1986 and the copy I have is from 1970. Her author bio says that, lacking a book that could aid her in making "the exteriors of old houses as authentic as their interiors," "she wrote it herself!" The book gives a history of which plants were grown in New England, why, and what they were used for. It is a fascinating read that helped me to understand the lives of early settlers (albeit in coastal New England rather than prairie Canada) and their reliance on both their own herbals and those of ancient Romans to keep them alive.

Interestingly she says that many plants discovered as "native" to New England were actually first discovered by "the French in Canada" who arrived here before the Puritans in New England and this is why so many wildflowers are "botanically labeled *canadense*" (37). Many samples of these were sent back to England to live in the Chelsea Physic Garden[10] (37). Leighton includes plantago in the chapter where she discusses those plants that could not be found in the many seed lists, records, or garden ledgers but that "escaped" from such places as cow feed, or were just so obviously useful that early settlers required them in their new lives. A

[10] Interestingly, the same place where a random dude gave a talk about cinchona bark in 2015 and talked about the dude that Henry Whitakker was based on! *I think*....you'll hear about that later.

very useful document, “Robert Hill’s Bill to John Winthrop, Jr” from July 1631, describes many of the plants from the Old World that were “carefully packed and transported across the Atlantic along with the Puritans’ most precious belongings,” but *plantago major* did not figure amongst this list (135). It contained “Bassill,” “cresses,” “carrett,” “cicory,” “new onyon,” parsley, “rockett” and “hartichockes,” but not plantain (190). As mentioned above, Leighton states that plantain was one of the “usual” remedies, dating back to the early Greeks and Romans, and because the Puritans looked to them habitually for their “medical information,”it was *likely* one of the plants that arrived with them. Her own research for “the names of plants grown in seventeenth-century New England” included “letters, accounts, wills, deeds, diaries, inventories, poems, receipts and/or recipes, prescriptions” but these only took her so far (187). Missing, she says “were many references to plants that we know they had, plants they felt they could not do without” and to find these, we have to look “outside walls and books” in the “countryside where they had lived to see if by any chance any of their plants were still left” (187). Working backwards from what we know they valued or used, she could find them where they “strayed beyond the carefully impaled areas where they were first tenderly set out after their long journey” from England and where they “mingle now with our own native wildflowers and look as if they had always been there” (187). She has several names for these particular plants: “escaped, adventive, introduced, naturalized” and notes that “sadly enough, one of the best ways to check their identities is in books on ‘weeds’ written for embattled farmers” (188). Amongst these she lists plantain which, along with coltsfoot and mullein, “bloom on old banks” (188). For Leighton, these plants are as common as any we see, and it is a surprise to learn that “they are as newly arrived on this continent as we ourselves” (188).

Along with Winthrop's seed bill, her other main source of information "on what the early gardens contained" is John Josselyn and his book, *New England Rarities Discovered: in birds, beasts, fishes, serpents and plants of that country* written in 1672. Plantain is listed among the plants he categorized as "Such Plants as have sprung up since the English Planted and kept Cattle in New England". Crosby's *Ecological Imperialism* references plantain as well as Josselyn in his chapter on "weeds" and how they (weeds generally, but plantain specifically) were key players in the successful colonization of the (North) Americas (in contrast with the less successful colonization of the South Americas). It's fascinating to put gardens, cattle food, colonization, and the introduction of cattle all together with John Macoun's accounts of how the prairies were ripe for agricultural take over. Macoun, as a professor, botanist, and explorer in Canada in 1870's until his death in 1920[11], was very involved in the botanical and agricultural understanding of this country[12]. He trained as a teacher, but began to teach himself botany in the late 1850's, for no other purpose than "it gave me a great deal of pleasure" (33). By 1862 "I did so well in collecting Hepatics that I sent a series of collections to Sir. Wm. Hooker, who was then Director of Kew Gardens" and he made many "exchanges" with botanists in the United States (39-40). His reputation and knowledge grew until he was asked to act as Botanist on his first expedition to the West.

Though I found Leighton invaluable, the mystery continues. Did plantain come over in cattle fodder? Was it something they ate in England and it came over as seeds in their manure? Was it caught in their hoofs? Josslyn does not elaborate, it is only stated that the plants appeared

[11] Interestingly, he died in Sidney, British Columbia, close to Brentwood Bay where I grew up.

[12] Interestingly, he says that the first species that he practiced botany upon were weeds. He would take "a common species of roadside or garden plant" and use a book of English botany to work out which plant it was. In this way he "learned the most of our common weeds" as "in that early time all our weeds were immigrants from England" just like himself (32).

with the English and their cattle. But perhaps we have to assume it is one of the "escaped" that walked over the garden wall to mingle with the wildflowers.

Leighton's work, combined with Crosby's *Ecological Imperialism* and John Macoun's *Autobiography*, have set out a picture (even if its a bit of a vague one) for me of the way the plantain arrived and moved west. So many didn't believe Macoun that north of the "bad lands" were prairies that might be perfect for wheat, barley, rape (canola), and other crops. It was believed that there were sandy deserts that were not habitable for humans and certainly not appropriate for agriculture. The 1857 expedition under "Capt. Palliser" reported that "the largest proportion of the Prairies was nothing more than part of the Great American Desert" (47). In 1872 Macoun was asked by Sandford Fleming to accompany him to the Pacific Coast "and act as Botanist to his party" on their journey to survey for the forthcoming Pacific Railway line[13] and thus began his life of exploration and botanizing across Canada. Macoun worked hard to convince the government of the agricultural promise of the prairies, since so many officials, who hadn't seen it for themselves, didn't believe his accounts of the fertility of the soils in the prairie. They assumed that it was barren wasteland and did not believe that Macoun and his assistants had found "prairie and aspen forest and a climate dry and warm" on their ascension of Mount Selwyn and portage to Hudson's Hope in the Peace River district (108). He discovers that "growth is extremely rapid, owing partly to the length of day and cloudless skies supplemented by heavy dews" and thus local gardens had wonderful growth of onions, (from seeds imported from England) turnips, beets, carrots and cabbages (109). This trip to the Peace River area in

[13] Interestingly, this is the trip where we get a wonderful description from Dr. Geo M. Grant of "the man that gathers grass": "some of the passengers went off with the Botanist to collect ferns and mosses. He led them a rare chase over rocks and through woods...scrambling, panting, rubbing their shins against the rocks, and half breaking their necks, they toiled painfully after him, only to find him on his knees before some 'thing of beauty' that seemed to us little different from what we had passed by with indifference thousands of times" (49).

1872 from Edmonton particularly caught my attention, as this is where I arrived to visit my best friend and found plantain in her driveway! After the trip was completed he was asked by 'Mr. Mackenzie' to write "a full report on the whole country between Port Arthur and the Pacific" (134). Such a report, Macoun says, "opened the eyes" of a great many political figures as it "opposed the fixed idea of cold, barren land in the north" (134). After his next trip, through the Qu'Appelle valley, Battleford, Long Lake, and crossing the elbow of the "South Saskatchewan," he was invited to lecture on his findings and declared this "so-called arid country" to be, in fact, one of "unsurpassed fertility" and (ignoring the Cree and other Indigenous nations) "without inhabitant" (153). Macoun was one of the few champions of the idea of arable land in the west, and was so passionate about the topic he was almost thrown out of the House of Commons when they were discussing the prospect of westward expansion (163). In 1880 he lectured on the North West in front of the Governor General (the Marquis of Lorne), who took detailed notes and cheered as Macoun shot down an unintelligent question-asker who doubted his facts (182). In his book *The Great North West*, published in 1882, he lays out many of the facts of the temperature, aridity, air currents, range of precipitation, all to prove his point that "an atmosphere like this, with a soil of abounding fertility extending over a region of almost boundless extent" created an area of unending agricultural possibility (204). And so the settlers, and the plantain with them, moved westward.

Seed Four: Personal Plant Ponderings

Growing update (October 2023): The leaves were growing and healthy for a time, but when I brought the pot inside around September, when some of the nights seemed colder, it developed moldy patches on its leaves. I put it back outside, wondering if it had gotten overheated in our warm house. It is now winter (though indeed, the warmest winter in recent memory) and the leaves have all shriveled up and died. Interestingly, one of the studies I looked at, based in Amsterdam, showed that propagating plantain in any time other than late fall was unsuccessful. The plant is used to, and now requires, a period of cold, then warmth before seed spears will appear; leaves would grow whenever they were germinated and planted. But a plant without the seed stalk isn't much help to anyone, so planting/propagating must occur in late fall so that a period in the frozen ground followed by the warming of the ground in spring can stimulate growth. Given that there are 13000-15000 seeds per plant (according to Crosby), it boggles my mind that I managed to propagate it incorrectly, and failed to get it to produce seeds.

Having plantago major tattooed onto my body was incredibly painful. I think her sense of how large the plant was was skewed by the botanical images I sent her. She "flows" the plant sketch up from my bellybutton up to the other tattoo on my ribs (a script tattoo that says "breathe") with a sharpie marker that is chilly, and tickles. I have had many tattoos before, but never from her, and never on the first day of my period. The pain is stronger than any tattoo I've ever had before. She is distracted, telling me of her legal battles over the place where she wants to open a tattoo shop, her troubles with her mother, that she wants to start an Only Fans account. That she has a playboy shoot coming up soon. But we bond over plants, and she tells me I'm a great mom because I let my kids be tired, rest, and have days off school. The tattoo takes over two hours and I'm exhausted and hungry by the time it's over. For the rest of the day, the

pain of the tattoo is strong, draining my energy. What feels like a migraine comes on strongly the day after, whether related to tattooing, menstruation, or just weather changes, I'm not sure.

But it's beautiful, the flow truly gorgeous, the leaves not realistic (she wanted them to look sort of scalloped for more visual interest), but the stalks are amazingly accurate (see Figure 4.1). How does a needle gun in the hand of someone so skittish, scattered, and childish make something so beautiful? I definitely was not planning on it being this large; in my imagination it was going to be just a small sort of clip art image on my ribs to mark a point in time in my life. This plant has become important to me as a symbol of the way I have re-assembled my sense of self and my life after having children and kind of losing myself to the expectations of others for several years. Plantain itself is humble, overlooked, kind of funny, slightly magical, short, and keeps popping up again when people step on it...kind of like the self I wish I could be/the self I am working towards perhaps. It belongs here in Alberta, but is comfortable in many other places, including some of my favourite elsewheres...I do feel a strong sense of identity with it, and connection to it, and that warranted a tattoo, to me.

Fig 4.1: Plantain tattoo by Kayla

Talking to my stepmom about the plant around Thanksgiving time, she knows almost immediately which plant it is when I describe it as a weed that grows in the cracks of the sidewalks. She is surprised that this is the plant I'm studying as she has strong, strong animosity against it. It grew all over their yard when they first moved into the house and she had to spend a lot of time and energy trying to remove it from the ground so they could plant vegetables and scatter wildflower seeds for poppies, cornflowers, and daisies. Her interest is piqued, however, when I say you can use the plant for skin irritants or bug bites. Her daughter-in-law, Lani, is always looking for natural remedies. She tells me to send her recipes/ways to use plantain. Maybe she won't spend so much time picking it out of her yard next summer?

It has snowed now, and on a recent walk I saw three small, frozen seed stems sticking up out of the patchy snow. Whenever I see it now, I hail it, as a friend, "oooh, hello!" Very different from the antagonistic feeling of my stepmother who had to pluck it by hand from her grass so that she could create a vegetable garden. What has changed my mind? Is it my knowledge of its history, or have I always been open to the "intrusive" plants? I love dandelions and like to annoy my husband by blowing the fluffy balls all over his grass. I bought Sebastian a book called "Dandy" by Ame Dyckman where a daddy (he just happens to be a lion) is trying to keep his lawn free of all dandelions, but his daughter decides that the newly sprung flower is her friend, Charlotte. My favourite line in the whole book is when the daughter tries to introduce her daddy to Charlotte and he says "Sweetie! That's a weed!" All the other daddies on his street keep egging him on to kill Charlotte (the dandelion) while his daughter is napping, or reading, or snacking, or at swimming. Finally one day he gets a giant 4x4 vehicle looking-thing to dig it out and screams "WEED MEET YOUR DOOM!" on the way to kill it. But his daughter has left a cleverly manipulative picture of him WITH Charlotte (still a dandelion) which gets him in the feels (as the kids say these days) and he just can't can't send Charlotte to meet her doom. It's hilarious, and eventually the whole neighbourhood is filled with dandelion friends (Charlotte 2 and Charlotte 3, and Charlotte 4). It's an adorable look at the bizarre, image-focussed suburban values that pervade many Edmonton neighbourhoods including my own, and asks the question: Why do we hate certain green things so much, and not others? Robert Macfarlane explores this in the acrostic poem "dandelion" in "The Lost Words." Dandelions have had many names like "little sun-of-the-grass" or "Windblow" and Macfarlane would add new ones such as: "Bane of Lawn Perfectionists" and "Fallen Star of the Football Pitch" (and there's a glorious song, Scatterseed that has become one of my favourites of the Spell Songs that is based on this

poem). But amidst all the names for dandelions he says, he would never call it "only, merely, simply, 'weed'"! The other names are so evocative, so colourful, so rich, simply "weed" is obviously just not enough.

I'm also reading Robin Wall Kimmerer's Gathering Moss*, which is sprinkled with insights about her child that illustrate or expand on things she's learned from mosses. In the body of the text she discusses how moss plants live in community with each other, "in colonies packed as dense as an August cornfield" (38). They do this to preserve as much water as possible, and when one moss shoot is separated from a clump "an individual moss shoot dries immediately" (38). In offset and italicized text she adds the story of picking up her daughter, who has been away at college, from the airport. Like a moss, Kimmerer says that she feels herself "expand in her presence. Her stories make me laugh and waken my own stories to intertwine with hers" just like shoots of moss that must bond together, even after time apart (38). The personal reflection parts of this thesis, the "seed spears" that spread through the leaves of my more academic writing, strike me as similar to her italicized anecdotes. The personal is interwoven with the scientific when you are a mother, or even just a human who lives in relation with the non-human world; they can't be totally separated, and I love how Kimmerer links them this way.*

Talking to Sarah about strings for glasses (she has seen some adorable ones at a Northside farmer's market) reminds me of Kaylyn who makes fancy ones and sells them at farmer's markets, but who also knows someone who makes plantain salve for sensitive skin issues. Kaylyn had an autoimmune response to their one tattoo and the ink started leaching out of their skin during a flare up and so they used the plantain salve to calm the reaction. This prompts Sarah to marvel at the way that plants especially seem to bring people together. There is something deeper there to ponder–what happens when you start using plants and being drawn to them, whether for use, for admiration, for decoration, for

medicine? Are we creating a community by being interested in the same thing? Is it a kinship? Merely a common interest? Ricou says in Salal *that "Ecology understands the natural world as an infinitely extending series of reflexive dependencies...an ongoing set of intersections" and that seems to me to be part of the way plantain is speaking to me (57) . It stands up and waves at me. Once I pay attention to something in the non-human world (more than human?), the connections and intersections become more visible.*

We also chat about the "so what" question that has plagued my work. I shy away from stating anything declaratively or decisively about any of the things I have found. It's rare for me to have enough confidence to make a thesis statement. Sarah's advice is that we do sometimes have to create a tiny statement of fact/point, or perhaps just suggest a possible thought as a maybe: maybe THIS something means THIS thing. THIS observation leads us to THIS conclusion, doesn't it? I want to merely put things in front of people as a web of connectivity and show them how it's all cyclical, connected, kin. But SO WHAT? What will be the "SO WHAT" of plantago major*? We are all connected in the great circle of life? Thanks Mufasa, but SO WHAT does plantago teach us? Its hardiness, its relative innocuousness (except to my stepmother) but it's medicinal usefulness? Be useful? All such trite, twee, cliche'd observations. There must be something more [plantago] major to be learned.*

So far the ways it's been "related" to me or to people I know:

- *In several of the places we stopped on our summer trip*
- *In my "hometowns" of Sidney and Brentwood Bay, BC*
- *In Natalka's front yard*

- *Eldyka (the doula who has been there for all my babies and miscarriages and post-partum healings) heard it in Robin Wall Kimmerer's audiobook*
- *Kaylyn knew about a salve/ointment*
- *It grows wild in Nita's grass—an obnoxious WEED*

Sarah says that's one of my strengths as a writer, and what was so strong about my frog paper: noticing the ways these pieces of information come to me and relating them to my life. Not as separate, distant critical writing, but as something close, something touching me. Perhaps it is because it's always the plant at the centre, it is the plant (or the frog) that is the cause for the relation, for the kin. The plant itself is the thing we are all relating through. There are connections everywhere, to everyone, because we are dependent on them, on plants.

Leaf Five: Botanical Binaries

The key texts that I turn to for understanding the movement of plants in and out of Europe include a fictional text. My mind holds onto details better when there is a story involved, and Elizabeth Gilbert's *Signature of All Things* includes a marvelous portrait of Joseph Banks, and descriptions of the way plants were commodified in the great race for empire in the 1800's. They were commodified, pressed into service, moved, transplanted, studied, grown, plantationed, exploited, and tortured into existence in new ecosystems; plants were central to the project of "biological imperialism" as Crosby called it. Biological imperialism for Bewell, involved

"disembedding plants and animals from their traditional physical and cultural locales and reembedding them in new locations,"which allowed the conquerors to "remake" these lacking landscapes "from the ground up," sometimes (often) in the image of the homeland the conquerors came from (25). This was partially done for nostalgic purposes, but more often, of course, it was financially motivated. The fictional Banks in *Signature* has a dream of cultivating an understanding of the cinchona tree to create an unlimited supply of Jesuit's bark[14] for the British population (who suffered greatly from malaria in the warmer climates). The project was to understand which bark created the strongest and most potent medicine, which his man, Henry Whittaker does, but he takes it a step further; dreaming of transplanting some of the cinchona trees from Peru (a Spanish-owned and inaccessible forest-y place) to India, a place rife with malaria. He thinks: "Why not grow this useful medicinal tree closer to malarial locations themselves, closer to where it was actually needed?" (33) Whitakker's plan goes desperately wrong when he tries to sell it to Banks, but he manages to pivot and sell the idea to the Dutch East India company and sets up a cinchona plantation in Java, where the trees end up "growing as happily as weeds in a cool, humid, terraced mountain estate called Pengalengan—an environment nearly identical…to both the Peruvian Andes and the lower Himalayas" (39). This plantation gives the Dutch an advantage over the English in being able to "keep their soldiers, administrators, and workers free from malarial fever all over the East Indies" without having to work through a supplier of cinchona tree/Jesuit bark who may or may not be corrupt or unreliable (39).

[14] Interestingly, trying to find out where the name came from led me to further information about Charles Ledger whom I end up explaining below. They called it Jesuit's bark because it was the Spanish Jesuit missionaries "who appreciated the medicinal properties of the so-called fever tree bark" (Harrison) and brought it from Lima where it grew, to Spain. This explanation is in an account of a speech given at the Chelsea Physic Garden in London by Marco Corsi to mark the advent of the malaria vaccine back in 2015.

This fictional example is based, I suspect, on the story of Charles Ledger and Manuel Incra Mamani who spent years of study trying to grow a frost-defying cinchona tree. They sent "high-quinine seeds," (seeds of a plant that had a higher concentration of quinine than just your average cinchona plant) to Ledger's brother in London. Some of the seeds were purchased by the Dutch government when the Kew administration passed on them and plantations were set up in Java (a Dutch colony), just as Henry Whittaker's were. Cinchona bark is just one example of the ways plants were central to the empire-growing plans of countries like England and other colonial powers.

The real Joseph Banks appears over and over again in accounts of the movement and uprooting of plants the world over at that time. His bust lives in a corner of the stairwell at the Kew Herbarium, which on my visit, was crowded with piles of boxes and books on their way to somewhere else. He is a key figure in the movement of plants into and out of Europe. After his first voyage with Captain Cook as the botanist on the voyage around the world, he ended up settling in London, where he ultimately became the President of the Royal Society, and the head honcho for Kew Gardens. I imagine him as a kind of giant spider at Kew Gardens, spinning a web that links himself and the British Empire to all corners of the earth, throwing out silken shoots to various locations and reeling them back in, collecting plant specimens, testing them out in the climate of England, sending different species to different places. As the President of the Royal Society from 1778, at the young age of 35, he used his "skill as an administrator" and good relationship to the King to further his interest in botany and become, essentially, "the first scientific advisor to the British Governor" (Gribbin 93). In their book, *Flower Hunters*, Mary and John Gribbon allege that Joseph Banks "introduced more than 7,000 new species into Britain," moved tea cultivation from China to India, developed Kew into the "leading botanical

centre of the world" and "promot[ed] the use of plants from different parts of the globe in new locations where they could bring economic benefits" (94-5). We can see his influence even in our own "humble" colony, as he described the future of Canada as an outpost of the British world and British system via letter to Sir John Simcoe, husband of Lady Elizabeth Simcoe (Longchamps, 220). I'm sure that their vision of a colonial copy of England across the seas, but with significantly more forest —England was desperate for a backup supply of wood as a natural resource—appealed to both men.

This is not the first time I've thought about botanical travels. In a paper for a class on women's writing, I looked at the diaries of Elizabeth Simcoe and how she fit into a history of feminine study of botany. That paper considered the implications of "how writers during the late eighteenth and early nineteenth centuries, from Erasmus Darwin to his grandson Charles Darwin, understood a world in which natures were traveling and resettling the globe" (Bewell xiv). Bewell's book introduced me to the concept of an "imperial naturalist" such as Sir Joseph Banks who used a system of "trade and exchange" to move valuable species around the world (xiv). People like Banks and Carl Linnaeus (the king of plant classification) were particularly interested in plants "not just out of scientific curiosity, but also in order to find ways of turning them into medicines, food or shelter" says Patricia Fara in her titillatingly titled *Sex, Botany & Empire: The Story of Carl Linnaeus and Joseph Banks*. Linnaeus felt strongly that "every country had been blessed with useful plants" and the race to ensure that Europe had easy access to all the *most* useful plants resembled the Soviet/American race to space (29). In a particularly wonderful turn of phrase, Fara calls the trips of Linnaeus's disciples "botanical pilgrimages" (34). His goal was to make Sweden self-sufficient by acclimating plants such as rice, mulberry trees, and tea plants to the difficult northern Swedish weather. Such pilgrimages became

fashionable, with "popular magazines encourag[ing] people to take up plant collecting as a hobby" (40). Banks, in England, similarly felt that science was inextricably linked to imperial expansion. He was instrumental in "demonstrating how useful foreign plants could be" after a voyage to Canada and one to Tahiti with Captain Cook as the crew's head foreign plant collector (95). This usefulness of plants "reinforced the links between commercial, imperial and scientific exploration" in the British Empire and created a link between science and travel that would continue for decades (95). Though Banks did not travel again after the three year trip with Cook to Tahiti, he became the President of London's Royal Society and instrumental in scouring the world for "useful crops to cultivate in Britain," many of which were displayed in places like Kew Gardens (136). His machinations and plottings "altered the patterns of international vegetation by exporting plants to British colonies, and also by moving them around the empire from one country to another" (135-6). He was especially interested in flax and spinach from New Zealand, which might be grown in Britain, and he was consulted on whether "seeds from Sumatra [would] grow in the Caribbean…or how might sugar production be improved in Surinam" (136; 138).

Thinking about Banks and the movement of plants sends us back to Bewell for a history lesson. Bewell's thesis in *Natures in Translation* is that there is a contradiction that happened as England moved from the Romantic period into the industrial era: that the British "came to see nature as something that stood apart from the modern world of 'getting and spending'...of mobility, exchange and transformation—at the same time as they were actively engaged in translating it into the very forms that would allow it to be accessed from a distance, marketed, exchanged, and improved" (6). This contradiction, Bewell explains, was sometimes class related: (rich) Romantics like Wordsworth saw nature as an escape from the world that was "too much with us," but for a "legion of new middle-class professionals" nature was the cutting edge of

"new economic and aesthetic possibilities" (6). People like Banks, and John Macoun[15], saw nature as a space for economic growth and colonial expansion especially during the late nineteenth century "when natures everywhere were the primary arenas of social, political, and cultural struggle" (Bewell, 7). We will see this with Crosby and his analysis of the importance of weeds in the colonization of North America as well.

I can illustrate Bewell's declaration that settlers "brought their own natures with them" with one fictional and one personal example. Biological colonialism was recorded in the children's book *Pettranella.*Written by Betty Waterton, (whose books are listed on the website *Goodminds:First Nations, Metis and Inuit Books*) an author described as a "seventh-generation Canadian," in the early 1980's, I remember it vividly from being a kid in British Columbia and had to go looking for the book as an adult again. In it, a family moves from "a country far away" to Canada to homestead. Since they have to leave Pettranella's grandmother behind when they leave their country, she sends along a cloth bag of seeds for Petranella to plant outside their new house. Unfortunately, she takes the seeds out of her skirt to look at them as they stop along the road to their new house, and when she stands up, they spill onto the dirt track. Only in the spring does she find a patch of flowers, "their bright faces turned to the sun and their roots firm in the Canadian soil" where they fell out. Her mother, her eyes shining with tears, sees them and says: "Just like the ones that grew in the countryside back home!" Interestingly, many years after this story, in the 1950's when my own mother and grandparents emigrated from the United Kingdom, my grandfather was not allowed to bring seeds or bulbs with him to the Maritimes. The control

[15] Interestingly, Macoun couches a lot of his findings about the potential development of the west in vague terms. In 1875, on a trip "down the Peace River" he describes how he "collected all the information possible regarding the country, its capabilities, resources and future prospects" (117). It isn't until a lecture in Winnipeg in 1879 that he puts a finer point on the "prospects": "I fearlessly announced that the so-called arid country was one of unsurpassed fertility" and indeed "these lands lay at their very doors and were without inhabitant" (153). He described the great North-West as an area of "illimitable possibilities" due to its soil and climate which could only be wonderful for agriculture (204).

of the movement of "invasive species" had by this time become recognized as necessary. In 1905 the Seed Control Act was introduced concurrent to the British North America Act, and its purpose was to set minimum quality requirements for incoming seeds. Specifically, they required that seeds showed "relative freedom from weed and other crop seeds" and were "packaged and labelled as required" (*Canada's Seed System* 21). I have a strong suspicion that any bulbs my grandfather had in his luggage were harvested from his own garden (thus unpackaged altogether) and covered in ye olde London soil (thus *likely* not free from weed and other crop seeds). Though the main focus for these regulations was on seeds for agricultural use, they did apply to seeds for "vegetables, herbs, flowers, turf and other miscellaneous seeds" (*Canada's Seed System* 21). Such plants would have been allowed into the country many years before as the Petranella story shows us, and as we see in figures such as Lady Elizabeth Simcoe[16] who came to Canada with her husband in the 1790's. She and her friend Mary Anne Burges were sending each other slips and seeds of things like May apples and "Seeds of the Cotonier or wild Asparagus" which may be eaten when young; "afterwards it becomes poisonous" (Simcoe 113).

As Bewell and Crosby underscore, there weren't just individual, accidental plant immigrants in motion at this time. Closer to my home, anthropologist Haeden Stewart records some of the impact of government-led, science-based plant imports in his thesis *In the Shadow of Industry: The Lively Decay of Mill Creek Ravine.* As the prairies opened and agriculture spread, in the late 1890's and early 1900's the government of Canada undertook a program of tree and bush planting for windbreaks and property delineation that would contribute to the "transformation of this appropriated land into commoditized and profitable space" (131). Stewart

[16] Interestingly, using Simcoe's letters for a paper on life writing in early colonial times, I discovered a reference to a plantain that was used for rattlesnake bites. It is unclear whether she would have been talking about *plantago major* (which was used for snake bites sometimes) or, more likely, the actual rattlesnake plantain that is native to North America. Rattlesnake plantain (*goodyera*) has gorgeous white markings on the leaves, almost like a rattlesnake's back.

recounts that, “in order to determine the perfect shrubs and trees to use, the central experimental farm in Ottawa amassed hundreds of samples and saplings of trees and shrubs from other hardy climatic regions of the world, sending them on to the farms in Indian Head, Saskatchewan[17] and Brandon, Manitoba to test their resilience and performance” (133) . Some of the plants brought in from Siberia were Siberian crabapple, and “*Caragana arborescens*, also known as Siberian peahedge” (133). We can see that there was an organized and methodical plan for plants to be moved into Canada as it grew and developed. Ann Leighton also details how settlers and explorers alike sent plants back to their homelands for personal reasons, and sometimes for profit: “Grapes and mulberries for silkworms were considered sound exports to the settlers. In return, rare and rewarding plants were expected to be sent back to England, some in very large quantities" (35). Plants such as tobacco, sassafras and any other “curious flowers” that were found, were sent back to England. In *Flora’s Fieldworkers: Women and Botany in Nineteenth Century Canada*, we are told that women like the Countess of Dalhousie, Anne Mary Perceval and Harriet Campbell Sheppard were all botanical collectors in Canada in the 1820’s and 30’s. Wives of some of the high-ranking colonial administrators and British officers, they corresponded with botanists in England and contributed specimens to various projects, most notably Sir William Jackson Hooker’s *Flora Boreali-Americana*. As he did not visit Canada himself, he relied on their collecting activities and collections for his information (Pringle 188). Catharine Parr Traill, though protective of her new home and wary of the way the new settlers were changing the landscape, herself requested “flower seeds, and the stones of plums, damsons, bullace, pips of the best kinds of apples” (qtd. in Krotz 95) in a letter to her family in England. Zach St. George in *The Movement of Trees* tells us that this was not only a “modern”colonial

[17] Interestingly, my mother lived in Indian Head for a year or two when I was doing my undergraduate degree.

practice, but that in 1500 BC, Queen Hatshepat initiated sea voyages to retrieve frankincense trees to provide Ancient Egypt with the fragrant pitch it needed, making it "the first recorded instance of an expedition specifically in pursuit of live plants" (65). He identifies an important shift in ecological consciousness as humans realized that "the fact that different things grew in different parts of the world is not just a quirk of biography but a problem to be solved," and the solution was usually to transplant the plants they felt were important to them to wherever they wanted to put them (64). Sending plants to and from "the colonies" henceforth became a common practice, as we can see through all of these examples.

When I first started thinking about this plant, I was thinking in binaries: that the plantago major was invasive, bad, no good, invader, colonizer. Watch it walk across the continent from the feet of the colonizers who came to step, stomp, invade. What I'm coming to now is a different binary altogether (and is it still a binary?) of the understanding of the conceptualization of "invasive species" itself. Or perhaps it is more an exploration of the limits of the space of the binary: perhaps the binary needs trampling? From what I'm reading, of Anishinaabe beliefs at least, labeling plants as aliens or natives (or invasive vs. native) is not in harmony with the Anishnaabe land ethic of "accepting the generosity" of plants or of reciprocating through "active, proper use and stewardship" (Reo and Ogden 7). This concept is known as "aki." Typically translated as "earth" it also "acknowledges the Anishnaabe teachings, which hold land as sacred and as the embodi- ment of Creation, as are all the living beings such as plants and animals, as well as water, stones, and supernaturals" (8). For the Anishnaabe, "plants and animals are family members…[who] move across the landscape, and mobility is not inherently good or bad, regardless of precipitating cause" (8) and it is our job as stewards of the land, and as lovers of the land to figure out how we are going to live with these family members and to "figure out the

nature of relationship with new arrivals" (8). Referenced in this paper, another author, Enrique Salmón uses the term "kincentric ecology" to explain the same concept: a total interconnectedness and integration of all life, both human and non-human in the Rarámuri (Tarahumara) context of Mexico (1328). Some of the practices of "Euro-American" land management are not allowing Anishsnaabe people to understand these family members fully, instead just eradicating them outright (Reo and Ogden 8). Reo and Ogden advocate for more incorporation of "indigenous cultural values and perspectives" as we work on proactive approaches to environmental change (8). Allowing Indigenous knowledge and perspectives on introduced species (notice, not "invasive") into discussions around land practices may lead us in the direction of better and more sustainable biodiversity (9). Salmón supports this idea that conservation for Indigenous populations "relies on a reciprocal relationship with nature" and denotes "caretaking responsibilities and an assurance of sustainable subsistence and harvesting" (1330). Ricou says that "'native' at least as it applies to plants, is historically contingent" (*Salal* 97) and I think, depends on one's cultural perspective as well. It leads me to wonder if western land practices of rooting out invasive species are almost as colonial as bringing them in in the first place? Are such practices doing more harm than good?

Seed Five: Kent and Kew

November 2023: On my second trip to England in this MA program I found broad–leaved plantain. It was waiting for me at Minster beach. For years I didn't actually know what the place was called as my cousin Lynn would just say we were going "up the Leas" and off we would go to walk the dog

(dogs now, she's got a Jack Russell terrier to harass her 10 year old chocolate lab). We went on a couple of different walks this trip, but the first was on Shellness, a beach that is literally all shells and sand. There are some tall grasses towards the end of the beach near the boggy/wetland bird sanctuary but not the sort of grass that plantago usually grows in here. Typically I haven't seen it in wetland areas, or even along the paths by the North Saskatchewan, so I didn't think it would be in that area by Shellness. Minster Beach, on the other side of the island, has a grassy patch up the hill to where you park, on the way down to the seafront. We walked all the way to the end of the paved walkway and had to touch the grass with our shoes/paws before turning around and going back. On the way back I noticed there were some grasses growing out of the cracks in the cement. I had seen lots of another kind of plantain, one with funky raised polka dots all over the leaves, and one with different seed spears that turned out to be ribwort plantain (related, not quite the same) but that day was the only day that I'd seen actual plantago major in the wild*. On my island, where almost all of my mother's family is from (going back generations, on both sides of the family except for her grandfather who was Welsh), there was* plantago major. *Sticking out of a crack in the paved walkway along the Minster Leas beach (see Figure 5.1.) It's hard not to feel the poetry in it. This plant has followed me/preceded me from Peace River Alberta, all the way to the Isle of Sheppey, where my maternal grandmother and grandfather were both born. Their parents are buried there, in the local graveyard, and here live almost all of my remaining family on my mother's side. I didn't see plantain in London at Kew, I didn't see it in Sussex at Kew, only on my familial island. (To be clear, the plantago was crushed, stomped on, and the seed spears were wilted and dried. The sort of Charlie Brown's Christmas tree example of the species. Undoubtedly it had been trampled by hundreds of walkers with their dogs, in this, its wild yet "disturbed" habitat. Perfect.) On that trip we also learned that the*

"Canadian" geese out in the water were no such thing, but actually Brant geese. We also heard Oystercatchers and white wagtails using my bird song identification app!

Fig. 5.1: Plantain in Minster Beach, Isle of Sheppey

November 2023 cont: The parakeets at Kew. WTF is up with them. These lime green, rose ringed parakeets grabbed my attention from the first day I arrived because they are so incredibly loud it's possible to hear them even over the traffic of the planes that fly over every 10 minutes or so. I found myself begrudging them the airtime, these parakeets. I assumed they were brought over to populate the tropical gardens at Kew and then flourished madly, "invading" the space, but didn't do any proactive research about them. I started calling them "the bloody parakeets" in my head and to my almost 11 year old

daughter (who facetimed me 3-4 times a day while I was there due to her extreme level of anxiety and clinginess in my absence). On a walk through Richmond Park I captured a picture of the fluorescent/lime green creature, resting on the side of a tree, its plumage showing up brilliantly against the brown of the bark. And you could HEAR them everywhere. On further research, a helpful article from the Guardian set out the urban legend origin story of the parakeets. No one knows where they came from particularly, but they did originate near Kew where I'm staying, likely as pets (but also potentially film extras), just a bit further south in Richmond-on-Thames. Likely they loved Richmond Park and thus decided to stay. (I did see the deer, the famous Roehampton Deer, and walked in their muddy hoofprints down a hill, which felt lucky in some way). They are now spreading across London, up to Hampstead Heath, towards Hackney marshes, but from whence, no one knows. Are they "invasive" like my plant? Or is it all dependent on your perspective? Nick Hunt, who wrote the Guardian article, astutely points out that "Parakeets are blank canvases on to which Londoners project their own prejudices, values, beliefs, hopes and fears. They have been weaponized." By this he means that some see the parakeets as unwelcome immigrants, taking space from the pastoral English robin or nuthatch and should be thrust back from whence they came. Others see them as a model of welcome integration by gorgeous tropical vibrancy. Hunt concludes the article (part of a larger book called The Parakeeting of London*) with the insight that parakeets have been a source of joy and wonder for city dwellers, that they are "the subject of outlandish speculation, the source of mystery, imagination and everyday wonder. They are a reminder to look up. To keep paying attention. In the simplest terms, it's hard not to find that uplifting." More on parakeets later.*

Studying at the Kew Reading Room in the Herbarium was an experience like no other. That sounds vaguely trite, but the whole experience had an AURA around it. Finding the place proved tricky, as it's up the other end from the main entrance, at Elizabeth Gate, not Victoria Gate (I see what they did there) and not within the paid entrance area at all. On the longest day of my trip, traveling from Sheppey to London, crossing London with my suitcase and carry on (now stuffed FULL of souvenirs for my family) I got to my Airbnb at Kew slightly drenched and with rain spotted glasses. I dumped my things and set off for what I thought was just "the library." Nope, it's the Herbarium, THE PLACE where the plants are kept. It's a disappointingly modern building, with a brick and glass facade that looks out onto the less modern (and more beautiful) buildings surrounding it. My first day I think I ended up sneaking in behind a delivery man, as the woman at the desk didn't have to get up and let me in with a pass as she did the next day and after lunch etc. I felt like a bit of a drowned rat, and worried I'd be taking wet things into the room with me, but they have coat racks and mini lockers to leave everything in except your laptop, notebook, and pencils. They had my selections from their database waiting for me at a table, in a small pile next to the sort of placemat thing on the desk. [Writing this at my Airbnb in Kew, I am distracted by the robins outside my window, and long to be outside walking. There's a path to the Thames river that I haven't explored yet, and this is my last day in Kew. Do I have time to shower, eat, walk and pack before I need to cross London again? Editor's note: She did not.] A beautiful raw wood pencil with Kew Library Art & Archives was next to them. The luxury of sitting in a dry, warm, quiet space, with nothing to do but read. Bliss (see Figure 5.2.)

Fig. 5.2: Research set up - Kew Archives

The key facts that stand out to me from my research there: 1) The seeds have a mucilage coating to them that when wet, is sticky. One author suggests that this is the main way the seeds "travel"; that when they get wet they stick to birds feet, or our feet and are thus moved.. Mind boggling. 2) There has been a lot of research on plantago major *in the Netherlands. Why is this? One author even mentions her mentor whom she says has been the "foremost expert" on plantago major for years. It still boggles my mind that someone has studied this humble little plant so much. 3) Trampled plants is a THING. Plants that live in areas where they might be trampled, i.e. disturbed habitats, have different adaptations to plants that don't grow on footpaths etc. 4) Maud Grieve is the most wonderful writer and I need to know more about*

her. Her descriptions of the plant are my favourite. 5) Someone wrote a thesis about classifying plants/plantago major in a different way from Linnaeus but there was so much chemical makeup compound stuff in it I couldn't decide if it really did make sense to take Linnaeus's whole classification system down one plantain at a time, or not. 6) I still don't know who brought the damn plant over.

When Laurie Ricou studied at Kew, he made the observation that "Paradoxically, this institution of imperial exploration, with an implicitly monocultural mission, labours mightily to remember and preserve biodiversity" (84). I think I felt that paradox more strongly at Wakehurst, when I visited the Millenium Seed Bank in my first year of my master's. It was almost as if, in apology of their conquesting and overplanting of the native flora and fauna, the British decided that they had to protect biodiversity in this doomsday-preparatory way. Catherine Parr Traill was already aware of the threat of the settlers in her writings in the late 1880's and grumbled against the inevitability of such destruction of the wilderness she loved so fiercely. Krotz says that Parr Traill "attributes the destruction of the wilderness to an unstoppable and necessary force of which she is a part: 'such things,' she grants, 'are among the 'must be' of colonial life, and so it is useless to grumble'" (Krotz 102). In Studies of Plant Life in Canada *she writes her "most explicit proto-environmental message" which is a call to create botanical gardens in Canada that would preserve "some record" of the "uses" and "beauties" of the "woods ...and the plants they nourished and shaded" before they "are utterly despoiled" by settlers" (Krotz 103). This sort of seems like closing the gate once the horse has escaped, but given her view of the inevitability of forward march of progress mentioned above, there was not much of an alternative.*

Ricou calls botanizing both "centripetal and centrifugal": "plant knowledge was to be brought back to the imperial centre, where study, organization, and preservation would reinforce the control of

information: habitat knowledge would also enable the establishment of colonies to reinforce networks of control and it's this double movement, this double control that I think you can feel at Wakehurst (Salal 147). They have these fascinating little exhibits outside the Seed Bank of various habitats and what grows in each due to the climate and soil, and I remember thinking, but how did they get here*? They had to have been transplanted back here...again. I walked something like 25 kilometers that day, from my small hotel room in nearby Ardingly, to Wakehurst, around the grounds of Wakehurst, to the pub nearby for soup and sticky toffee pudding next to the giant fireplace (the pub has been there since around the 17th century) and then back to the hotel. I think, truthfully, I loved Wakehurst far more than Kew Gardens in London. It was more like a forest surrounding the house than a public garden. Giant cedars, sheep, pheasants in the nearby field, the rock walk (which, I was told, the Game of Thrones people wanted to use for their movies but weren't allowed to as it's a most delicate lichen/moss habitat and can't be disturbed by film crews), and probably, the lack of other people (it was a rather damp and cold day in February) made it just wondrous and calming.*

Leaf Six: Wandering Weeds

In *Ecological Imperialism: The Biological Expansion of Europe, 900-1900*, Crosby works through the ways that Europeans "soar[ed] to world hegemony" by "exploiting the ecosystems, mineral resources, and human assets of whole continents" (xvii-xviii). Though many attempts were made to create "Neo-European" settlements in tropical climates, these proved to

be very difficult and even life-threatening, due to “contact with tropical humans, their servant organisms and attendant parasites” (142). North America was a much more hospitable place for them, being at a similar latitude to England. Crosby makes it very clear that there were two factors beyond the latitude that “enabled the white intruders” to make themselves at home in these “harbors and shorelines” (146). Firstly, “the demoralization and often annihilation of the indigenous populations of the Neo Europes” and secondly the “stunning, even awesome success of European agriculture” in North and South America (and Australia and New Zealand) (146-147). I find his prose style endearing and humorous, as he says “While pioneers of the United States and Canada would never have characterized their progress as ‘easy’...as a group they always succeeded in taming whatever portion of temperate North America they wanted within a few decades” (147). This “taming” of the landscape was due to weeds, feral animals, and “pathogens associated with humanity” (which we can assume to mean smallpox which hastened the “annihilation” of the Indigenous peoples (148)). In this thesis I am most interested in the way weeds helped tame North America. Crosby has my undying allegiance when he says that “weeds are not good or bad; they are simply the plants that tempt the botanist to use such anthropomorphic terms as aggressive and opportunistic” and, I would add, *invasive* (150). I had been doing research for months when I finally found his account of *plantago major* in the weeds section of *Ecological Imperialism.* Weeds, he says, were expected to move across oceans in an “equal exchange between mother Europe and her colonies” but that wasn’t in fact what occurred. Again his writing style amuses me as he draws a picture of “hundreds of Old World weeds" who “packed up, weighed anchor, set sail for the colonies and prospered” here, but the American weeds “pined away and died” unless they were fostered with great care “at such homes for exotica as Kew Gardens” (165–167). Once again we see the movement of plants, but here mostly

in one direction. Plantain, like the dandelion and sow thistle also mentioned by Crosby and Josselyn, is a true weed as Crosby defines it: neither good nor bad, simply a plant that has been labeled "opportunistic" which echoes Leighton's "escaped" plants (150). Plantain certainly takes every opportunity it gets to spread, producing "13,000 to 15,000 seeds," and thriving in "disturbed ground" which allows it to thrive almost anywhere[18] (169).

A notable exception to the mad spread of weeds across North America, he says, is the Great Plains region, for one very large reason: the "stores of millions of buffalo" who lived and grazed there (291). The bison who grazed and trampled the grasses and flowers and weeds on the plains managed to maintain the native American species there and prevent the spread of the Old World weeds. The incoming plants could not survive the weight and the grazing of the bison as they were used to the "Old World quadrupeds," just as the native plants in the rest of the continent who could not flourish in the face of cattle, sheep, and horses brought in from Europe. In the Plains region, there was what he calls "a tight partnership" between the bison and the native grasses "each sustaining and perpetuating the other and fending off the entry of any great number of exotic plants and animals" (290). The climate was not agreeable enough for the European livestock and grasses who had "won victory over victory together in the temperate zones" and so the bison and the native grasses survived until the white men arrived "in force, with rifle" (290-91). Once the bison were gone – an extermination that took place over a matter of mere decades – "Old World ranchers and farmers, cattle and sheep" moved in and with them came their "wheat and their weeds" and other plants that, as Josselyn said, came in when the English "planted and had cattle" (85-86). Even though our region was, impressively, the last hold-out against the colonizing weeds, it seems particularly tragic that it was the extermination

[18] Interestingly, except in a plant pot cultivated by yours truly.

of the bison that allowed the weeds to move in and set down such strong roots. Crosby reiterates that there really is nothing "intrinsically superior" about the Old World weeds or creatures that make them more likely to thrive over the ones that were already here (291). What happened was not that a superior plant moved in to replace an inferior one; with the white man came an entire shift in ecosystem as they moved in their flora and fauna. This shift resulted in a totally modified habitat and environment where certain organisms flourished in place of the original ones. What is concerning is the "team effort" that worked so hard to shift that ecosystem in a deliberate and concentrated way to create an area that would favour Old World organisms (292). The incoming settlers were attempting to recreate what they were used to, and thus created "a condition of continual disruption:of plowed fields, razed forests, overgrazed pastures, and burned prairies" (291-2). And in this, I would think it is fair to say that they succeeded.

Seed Six: Winter Walkings

Tromping around Kew gardens proper, I realized a few things: I did not see a hint of my plantago friend anywhere; it can be very cold in London in November; they really do have plants from all over the world there; Queen Charlotte's cottage looks like the Sanderson Sisters' cottage and is super spooky all boarded up (a sign in the ground alleges that, due to Covid, they do not have the funds to staff it/open it all year round anymore); and I loved the boardwalk of wild plants a lot. It felt like the Wagner Fens in its "organic" overgrown-ness. The boardwalk traverses a piece of the garden that they had only recently opened to the public, as a deliberately un-manicured place. It overlooks what must be a bit of a

swampy area in the spring and summer, with uneven, leaning, crooked trees throughout. It is called the Woodland Walk and the sign said it had been left "largely in a wild and natural state" since Queen Victoria's time. The boardwalk was covered in leaves, and the trees were shades of green, yellow, and brown. A rough wood fence of a single piece of timber kept wanderers on the path (both the boardwalk and the dirt path), and holly berries winked at me (my mother's favourite plant that doesn't thrive in Alberta). Likely the trees weren't the same as the ones at the Wagner Fens near Stony Plain, but the enclosed space, the way the trees bent around the boardwalk, the tall grasses below that suggested a bog in the spring rains, evoked the same feeling for me (see Figure 6.1.). I felt at home. Even though, right behind this woodland walkway was the Thames and some 400 year old cottage that a Queen played house in, and not Highway 2.

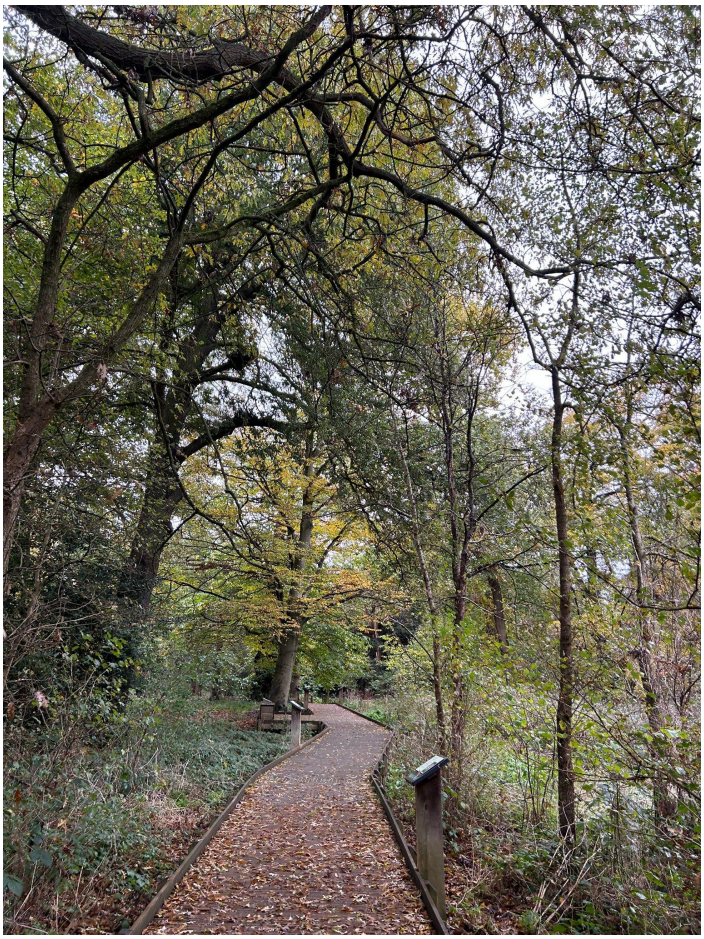

Fig. 6.1: Woodland Walkway, Kew Gardens, London

Parakeets continued: I think my confusion about whether to love or hate the parakeets is consistent with my feelings about plantago major *and other "invasive" species in general. I applaud and love the idea that the loud bright parakeets are forcing city dwellers to at least pay attention to the natural world. (The parakeet feels like the British version of Szabo-Jones' jackrabbit—something that so many people don't even see on their daily commute, but that is* there *and alive and important.) But as a child of a very proper British subject I am slightly mortified by their volume (both noise level and number of species).* Plantago major *does not stand out in the same way the parakeets do, but its presence in Canada has a mystery of a similar kind to the parakeets. How did it get there? Who brought it? For what purpose? How*

did it multiply, spread, traverse the country? After months of study I am still not sure in whose pocket, or on whose boot sole the plantago hitched a ride. Did a botanist with the same kind of zeal for plants as John Macoun spin a circle in joyful bliss on the shores of Brentwood Bay and the seeds tumbled out of his pockets? I imagine a man in trousers and suspenders and a flat cap frolicking down a hill to the Pacific Ocean, seeds raining out of his pockets, and his lace up boots stomping them into the soil. Highly unlikely. But there is no concrete information at this time and so my imagination is in overdrive. It is likely a combination of factors and of people that brought plantain to Canada. It has been an important plant since Pliny, and the Puritans knew this, so whether it arrived in cattle feed or just was forgotten off of a seed list, or the seed list was just lost in a pocket that went through a wash basin? There are multiple potential origin stories of the parakeets in London just as there are many sightings and interactions with the parakeets by individuals in London every day. They stand out against the brown of the tree as robins just don't! Similarly, plantain has impacted many lives over the many years it has been in existence, and many people, birds, and feet have impacted plantain.

Typically, I'm struggling with the "so what" part of this whole thing. I can lay before you this plant that has had a profound influence and effect on my own thinking, just by noticing it and following it. But what difference does that make to either the world at large or literature at small?

December 2023—As I start to think about writing the actual scholarly parts of this thesis, it is winter. An unseasonably mild winter, but still winter. The plantago plant that I know lives in the crack of my driveway is covered in ice. There isn't enough snow to cover the fields where I walk often, but the grass is brown and crunchy underfoot and I don't see any plantago leaves amidst the brown shards. This observation of cyclical loss and rebirth is part of the message and lesson that we learn from paying

attention to our non-human friends. I remember writing about it in my frog paper as well; standing in the cold, deep snow of two winters ago I knew there were wood frogs under the tree litter and they would awaken in the spring. Now, I know there are plantains hiding under the grass and waiting for spring to green and grow. But paying attention brings anxiety, for what happens in such a warm, dry winter as we are having? Have the frogs received the "it's winter" message strongly enough to send them into hibernation? Has the ground gotten cold enough to signal to the plantain seeds to be dormant, and will the temperature change be drastic enough to germinate the seeds? Do they need more water than they are getting to awaken and grow in the spring? The act of walking itself, Ricou reminds us through Donna Landry's idea of "alert wandering" , is central to the act of noticing, as "walking prompts continuous attention to 'what can be seen from a ground-level point of view'" (151). There is so much to be seen at this ground level that enriches and augments the everyday life of the human experience—the jackrabbit, the dandelion, the plantain—and all we have to do is pay attention.

*For Christmas this year my husband bought me plantago major soap. It comes in a beautiful orange box, almost plain but with a hand-done line drawing of the plantago, leaves low and flat with those remarkable (as in I remark on them over and over) leaves with their signature grooves, and the obvious seed stem. The company that makes it is from Quebec. He ordered Plantago tea also, but it did not arrive in time for Christmas. Plants really do bring people and things together; as I become more open about my own interests in the natural world, it allows my family to know me and my true self more. My therapist is always telling me to just notice what I'm drawn to, instead of diving into things that appeal to my need and love for *shiny*. Plantago isn't shiny; it's a weed. Would it have been more obvious to pick something beautiful like the sweet pea or the poppy to study in my thesis? I do love them also, but*

there is something wonderful about studying some "humble" and unremarkable plant like the foot plant.

Walking home with Mark from my mom's today he tells me that it won't be long before my plantain is back again; that it, like the quack grass, is one of the earliest plants to appear in the spring. As a farmer's grandson (on both sides of his family actually, his Grandpa Romanowski owned a ton of land that his Uncle still farms commercially, and I think his Grandpa Sych had a small holding out in Calmar that they farmed) he notices these things, even if it's just that they arrive in the cracks in his sidewalk first. He says they come out with the dandelions (his mortal enemy) which is so interesting, given the Anishnaabe Aki paper which returns over and over in my mind.

Leaf Seven: Nice Neighbours

For Reo and Ogden, dandelion and plantain are linked as "relatively simple examples" of introduced species that are "'weedy'" but "pose no real threat to biodiversity or cause other negative ecological impacts" (5) unlike the non-native cattails that are forcing out the broadleaf cattail. Robin Wall Kimmerer, in that epic of plant-ecology and wondrous storytelling, *Braiding Sweetgrass*,[19] echoes Reo and Ogden's understandings of Indigenous teachings around "new" species to America. For them, the terms "alien" and "native" "stand in stark contrast to the Anishnaabe land ethic and interfere with Anishnaabe connections to place and their social relations with non-humans" (7). Kimmerer relates that as she walks back to a trail she is embarrassed at not greeting her old friend, plantain, because she was "bedazzled" by "giant firs, sword fern, and salal" (hello again Ricou!) (213). She names it "White Man's Footstep," not footprint, like Josslyn did. Her description, like Rita Wong's poem, warrants a long quote:

> Just a low circle of leaves, pressed close to the ground with no stem to speak of, it arrived with the first settlers and followed them everywhere they went. It trotted along paths through the woods, along wagon roads and railroads, like a faithful dog so as to be near them. Linnaeus called it *Plantago major*, the common plantain. Its Latin epithet Plantago refers to the sole of the foot. At first the Native people were distrustful of a plant that came with so much trouble trailing behind. (213)

But ultimately, "after five hundred years of living as a good neighbor" people forget that "it's a foreigner, an immigrant" (214). A good neighbour, to Kimmerer, is one who has gifts as plentiful

[19] Interestingly, I only came across this reference when discussing my thesis with my doula/acupuncturist friend Eldyka (who used to dance in Shumka with my husband). She was at the delivery of all my babies (one of which was incredibly

as the plantain and doesn't force out the plants that were already there. "In spring it makes a good pot of greens, before summer heat turns the leaves tough" and "the leaves, when they are rolled or chewed to a poultice, make a fine first aid for cuts and burns, and especially insect bites" (214). Kimmerer takes this lesson one step further (get it?) and suggests that our task, as people who have just come to this land, is to be like the plantain: "to strive to be naturalized to place, to throw off the mind-set of the immigrant…live as if this is the land that feeds you, as if these are the dreams from which you drink, that build your body and fill your spirit" and crucially, "to live as if your children's future matters, to take care of the land as if our lives and the lives of all our relatives depend on it. Because they do" (215). Reo and Ogden take this a step *even* further (get it again?) and state that lessons from Anishnaabe land ethics could counteract what they call "an invasive land ethic" that directs settler land use policies. The invasive land ethic looks like an "imposition of Euro-American property ownership regimes, 'command and control' forms of environmental management, and a worldview predicated on the separation of people from nature" (7) and this kind of attitude is much more harmful than casting out so called "invasive species" when they, like the dandelion and the plantain, are merely "weedy" (Reo and Ogden 5). Echoing in my head since reading these two things together has been a sort of life mantra: Be like the dandelion and the plantain, for they do no harm and bring useful gifts.

---

traumatic and almost killed me), and nursed me through two miscarriages, and continues to be a friend and healer to me. She had been listening to the audiobook of *Braiding Sweetgrass* on her daily commutes and had just heard plantain mentioned! Another connection!

Seed Seven: Learning Lessons

January 2024: Having said that I am finding it hard to start writing when there is snow on the ground and the plantain is nowhere to be found, I found it the other day! In a moment of frustration of course. The clicker box for my garage door (the door remote) hasn't been working in the extreme cold, so I had to reverse out of the garage, then get out, wiggle around the garbage cans and use the number pad on the side of the garage to close the door after me. On a day that I was particularly rushed, I was incredibly angry at the GD clicker box (Canadian joke show reference) and stomped out of the van to close the door. And stomped right on some seed spears of none other than my dear friend broad leaved plantain (see Figure 7.1). No leaves to be seen, but some dried, brown, crisp seed stems just poking up through the snow. How ridiculous, how fortuitous, and like a kind hello from warmer times reminding me that it will all come back soon. I've been thinking a lot about the cyclical rhythms of natural time. What podcast was I listening to that was talking about how time isn't linear, and our whole culture makes it seem like we are always heading in a straight line, straight up, straight towards greatness, success, and a BETTER LIFE? When that isn't always the case. Natural time goes around and around in circles, and sometimes life does too. It must have been Katherine May's podcast, because she posted a quote on her instagram from Wintering *just after I was thinking about this:*

> *"We are in the habit of imagining our lives to be linear, a long march from birth to death in which we mass our powers, only to surrender them again, all the while slowly losing our youthful beauty. This is a brutal untruth. Life meanders like a path through the*

woods. We have seasons when we flourish and seasons when the leaves fall from us, revealing our bare bones. Given time, they grow again."

We return over and over to the lessons we need to learn, and we aren't always getting BETTER or more efficient or happier or richer or any of those things. Sometimes it's winter, when the seeds need to be cold and dormant and resting. I think I need a season to be cold and dormant and resting. Still. To rest for the warmer months. Just like the plants.

Fig. 7.1: Plantain next to our driveway, Edmonton, A.B.

February 2024—Finally got around to trying the Plantain Leaf tea that my husband bought me for Christmas. He busted out the little loose-leaf tea pot that I was just going to purge out of the house because we haven't used it in probably a year and packed it tight with leaves and poured in the hot water.

It was a shared experience that we haven't attempted in a long time; trying something new, even if it was just a tea. He was so proud of himself for finding something that was important to me that he could be interested in as well, that also dovetailed with his love of making me beverages.

Feb 2024—out for a walk on the U of A farm in the weird warmth of a February afternoon and because so much snow has melted I can walk along the path of the aspens along the road, rather than the dirt road itself. The grasses are higher there, and I wonder about what my feet are carrying with them. Gritty, clingy, velcro-like matter attaches itself to my sock as my foot rocks and rolls as I walk and I have to stop and balance on one foot while I take off the boot, brush off the organic matter and put my boot back on. I mentally congratulate myself on my dancer balance. When I get home I have to put the socks in the wash because there is still dried grass stuck to them. Is it a grass of some kind? Or some other thing, like a plantain, that I should know the name and history of? Will I make this the topic of my next major writing project?

If I did have to articulate in a sentence what effect this project has had on my thinking it would be to reiterate the mantra of the dandelion and the plantain as I hear it: Do no harm, edge no one else out of their own space, and bring useful gifts. Accept what (or who) is there before attempting to weed them out. Assume all plants are kin and kindred and there for a reason (even if it's a random reason like someones foot walked it there). We all belong on this earth, in this place, if we can do no harm and be useful.

Leaf Eight: Plant in Print

It feels to me at the moment as if I do not have many reasons behind these references to plantain, they are just a collection of random references. Which is sort of where I was with the frog paper also; I'm not sure what the batch of them together mean, to me, or to literature in general. Starting chronologically, both Chaucer and Shakespeare's references to plantain were in regards to medicine. Chaucer called it the "herb sovereign" according to Grieve in the *Prologue of the Canon's Yeaoman*, though when I look for the reference, I find that plantain is actually mentioned in the description of the Canon's Yeoman, that the poor lad was so sweaty that "His forehead dripped like a still/Full of the herbs plantain and pellitory" (Chaucer 580–581). Looking up pellitory, it is possible that Chaucer was referring to *Achillea ptarmica,* or sneezewort/pellitory, an herb that's widespread across Europe and that yields an essential oil that was used in herbal medicine. So if his head was dripping with sweat like a still (similar to a still one would use in the making of alcohol) full of this oily herb and plantain which is also oily (used in salves), the man must have been drenched.

Chronologically, Albrecht Dürer's painting, *Great Piece of Turf* (which sounds so much more impressive in German: *Das große Rasenstück*), painted in 1503, comes next after Chaucer. It is a realistic, beautifully coloured painting with dandelion and plantain and other tall grasses which look familiar to this prairie girl (the one you pick when walking and recite "here is a tree, here is a bush, here is spaghetti, CONFETTI— as you throw it up in the air at the person you walk with). The plantain is hidden in the bottom left, but the tell-tale leaves are easily found, while the seed spear/spikes are in flower. I actually have never seen the spears in full flower as it is in this painting, and I marvel at how he might have caught it at this brief period in nature. The

plantain is bent over, almost lying on the rest of the grasses, as if it's been stepped on by some wandering stranger, or a cow in search of some snacks. The picture is beautiful, and seems incredibly modern, like something out of the Ikea mass-produced botanical print catalogue, all stripped back and simple lines (see Figure 8.1). It is interesting to me that Dürer painted this image somewhere in Germany, as at least two of the pieces on plantain I read when I was at Kew are by authors in Amsterdam, where it seems that there was a geographically specialized interest in the plant. They are at least in the same general area of the world, closer than Edmonton is to Nuremberg at any rate.

Fig.8.1: *Great Piece of Turf, Albrecht Durer,* en.wikipedia.org/wiki/Great_Piece_of_Turf

Shakespeare's reference focuses on the medicinal element of plantain, as Romeo advises Benvolio to put some plantain on his "broken shin" in *Romeo and Juliet.* Benvolio, discussing Romeo's gloominess over the ending of one relationship (fair Rosaline?), suggests that the best method to get over it is to find himself another girl to distract him. He uses the metaphor of pain, reminding Romeo that we are only focussed on our current ouchie until a new one comes along: "One pain is lessened by another's anguish"(Shakespeare 46), and that if one has an eye infection it will only be upsetting until the next one comes along! Romeo, catching onto the reference of infection, responds with "Your plantain leaf is excellent for that"(51), but Benvolio, not understanding, has to be told that Romeo meant him to put it on his "broken shin"(53), which, according to the notes on the scene, is slang for a broken heart. Beware though, as Grieve usefully warned that though the leaves have "some value in arresting the haemorrhage" of a surface wound, they are "useless for internal haemorrhage[20] (Grieve 640)!

I have already mentioned *Hiawatha,* but only in terms of Crosby pointing me to the Algonquin who may have originated the name "Englishman's foot." What I will focus on in this section is the role of the plant in the poem itself. What does it signify within the larger context of the colonial history the poem discusses? James McDougall offers a modern interpretation of Longfellow's epic poem casting Hiawatha as an Indigenous version of the Greek Prometheus. McDougall says that Longfellow is attempting to reveal a "lost American literature" that "emerges from nature" and creates a definitive origin story for American poets to build on (80–1). He feels that the heavily pastoral elements in *Hiawatha* "indicate an anxiety about a loss of connection to an organic unity" and create a world that is "not yet disturbed by the social,

[20] Interestingly, however, I found a research paper on using plantain for just this purpose: "The effect of plantain syrup on heavy menstrual bleeding: A randomized triple blind clinical trial" written in Iran in 2019. Shockingly, no significant difference was shown between the placebo group and the group who was given plantain syrup in capsule form to try and reduce their heavy menstrual bleeding (HMP).

artistic, and technical" aspects of the industrial age Longfellow himself lived in (87). Hiawatha is the master gardener who "transforms the wilderness of nature into a garden that nurtures" his people—itself a technical and industrial transformation and change from their hunter-gatherer way of life (87)? But as Mcdougall points out, this is an unsustainable job, and Hiawatha leaves his post as gardener and gives "his place in the garden to the newly arrived guests" of the white missionaries who have recently arrived (87). The way Longfellow structures the poem seems to suggest that Hiawatha has seen their coming for some time, and grants them safe access as "guests…in the lodge of Hiawatha" (228). Iagoo, "the great boaster" returns home from a journey east and tells the people of a great "water/Bigger than the Big-Sea-Water" over which came "a great canoe with pinions" with people whose chins were covered in hair and whose faces were painted white and when the warriors and women respond with derision "like the ravens on the tree tops, / Like the crows upon the hemlocks" Hiawatha corroborates Iagoo's tale, saying he has already seen their coming in a vision (218-219). This is when we are told that they have been sent to this land on an errand from "the Great Spirit, the Creator" (220) by which Longfellow gives the colonizers an unearned air of legitimacy. Hiawatha says that wherever the white man moves swarms in front of him "the stinging fly...the bee" and "wheresoe'er they tread, beneath them,/Springs a flower unknown among us,/Springs the White-man's Foot in blossom" (220). I find this interesting for a number of reasons. Firstly: Is Longfellow alluding to the bees and other insects that arrived with the colonizers specifically? Secondly: I have actually rarely seen *plantago major* in flower as mentioned previously, so it's curious that Longfellow doesn't describe it as a grass, or a weed, but a flower, arguably more precious and beautiful than a grass or a weed. Finally: describing these "natural" phenomena that are associated with the white man's arrival gives them another kind of legitimation: these signs from the Earth itself that

signal the white man's coming means that they are welcome. Such images quite literally naturalize their presence. They should be hailed "as our friends and brothers" according to Hiawatha, (even though they brought a stinging fly? How dare they!) even though in his own vision he can see that in the future the nation will be scattered "weakened, warring with each other" (221). But this scattering will not be *because* of the white man or his foot, but because his own nation were "all forgetful of [his] counsels" on how to be peaceful within their own factions (221). Instead of seeing or portraying Englishman's foot as an invasive weed, perhaps it is a sign of how the white men truly belonged in these new lands and would beautify it with their new flowers and populate it with their new pollinators. Or does the annoyance of the stinging fly they bring indicate an element of ambivalence or mistrust on the part of the First Nations regarding the benevolence of the Englishemen? This is another position on the spectrum of how incoming botanicals were viewed: invasive (by modern ecologists), newcomers but useful (by modern ethnobotanists), or beautifier—but with stinging flies—(by Longfellow–a descendent of settlers).

Seed Eight: Rhizomatic Rememberings

My husband's comment when I tell him that plantain is mentioned in To the Lighthouse *by Virginia Woolf(which I discovered on a random blog found after some google search or other – "A Virginia Woolf Herbarium" by Elisa Kay Sparks) is that "You really were destined to write this thesis weren't you?" which is unusually fatalistic for him.* To the Lighthouse *is easily my favourite of VW's (which is what I call her in my head) works. I have been to Cornwall and seen the house it's based on,*

Talland House, once completely by accident and once very much by design. These serendipitous alignments remind me how connected to the wood frog I felt also in so many similar coincidences; that someone who worked with one of my best friends had written a blog post about wood frogs that spoke to my soul. That my favourite British poet, Alice Oswald, had read a Christina Rosetti poem about frogs online at some point had a similar impact on me. I wonder if such coincidences would occur with all works about the more-than-human world to each of us due to the fact that we have lived in this world our whole lives, and we must all overlap at some point? Or is there something special, serendipitous, about the wood frog and the plantain that have chosen me? Again, I will never forget the feelings when I pulled up to my best friend's new rental house in Peace River and saw it in the driveway and felt...welcomed. Awaited. As if plantain had journeyed there specifically to be there for me, with me. Similar to seeing it in my old home, Brentwood Bay, which is one of my favourite places on earth. I wish we could have stayed there; I think it was really traumatizing for me to leave there when I was 7. And on the banks down to the water, there it was. And on my second favourite beach walk on the Isle of Sheppey. Perhaps these events are so poignant because I never did SEE a wood frog. Is it easier to find a plant to have a moment with because it stays still? An ambulatory frog is much harder to catch than a species which must remain in ground, even if its seeds do go for walks on the soles of other's feet. This reminds me that Laurie Ricou sees salal within the bouquets of flowers sold in Paddington station while he's in London to study at the Kew Herbarium and counts it as a "sign of home while away" (62). This sense of knowing and of recognition is reminiscent of the way Catherine Parr Traill feels at the sight of a familiar flower in the wild. Sarah Krotz describes it as comfort for "the emigrant who feels acutely the loss of her cultural heritage" (96); even though it is a young country for the Europeans and does not yet have the history that Traill would have been

accustomed to in her native England, nature is always there. Krotz says that "to move through Traill's flora is to move through an inventory of poems, fragments of which float among her petals, berries, and trees" (96). Ricou recognizing salal within the bouquets at Paddington station is a hearkening back to his own home, a recognition of something familiar, a "tiny link" as Traill calls it. Ricou has a name for such connections: "rhizomatic branching"; such as when someone in the search for salal knows someone else deeply and intimately that he's met because of the search for salal[21]*. For him this is related to Deleuze and Guattari's idea of rhizomatic connections—low, wide, and strong(like rhizomes in the ground), rather than tall, high, and strong (like a tree). Rhizomes remind me of Merlin Sheldrake's* Entangled Life, *an exploration of fungi, and we will come back to him. It is surprising, as Ricou says, "the connections a little-known shrub initiates" as we travel "moving through space and across the page with eye or pen" with a certain plant in our minds and hearts and ears (205). It reminds me of the erratic, unpredictable, rhizomatic spreading of the plantain which connects as it spreads.*

Leaf Nine: Painting Plantain

Re-reading *To the Lighthouse* by Virginia Woolf is always a delight. Since I have been to St. Ives, Cornwall, where the house that her family owned and visited every year still stands, I have a hard time with the alleged location of the story, which is the Hebridean islands. Cornwall is almost a sub-tropical climate, with palm trees, plus 30 degree temperatures in the summertime, and sunburn-inducing sunshine. There is art everywhere because of the quality of the sunshine:

[21] Interestingly, on the same page as this anecdote is a little sidebar about a salal research station near Shawnigan Lake, which is near one of the houses we lived in on Vancouver Island when I was a kid. Another little zap of connection.

pure, bright, warm. The ocean turns a fluorescent shade of teal in its brightness. The Hebrides are much further north, much rockier, greyer, and colder. Wikipedia tells us that the average temperature in the summer is only 14 degrees, whereas St. Ives has an amount of sunshine per year "that is above the national average" ("St. Ives, Cornwall"). I am not sure why Woolf felt that setting the novel on the Isle of Skye made any sense; anyone who has visited either of these places would know and understand the vast difference in climate and ecology between them. The quality of the light in St. Ives makes the idea of going to the lighthouse, and the presence of Lily Briscoe, a painter, so much more sensible.

The plantain appears almost at the very end of the novel. In the first section of the book when the children are young Lily is working on a painting, and the visit to the lighthouse is discussed but seems impossible because of the prospect of bad weather in the morning. After the section called "Time Passes" wherein Mrs. Ramsey, Prue, and Andrew all die, Lily and Mr. Carmichael and Mr. Ramsey and the children come back to visit the house again. It takes two cleaners ages to put the house back together, as the family will be expecting it all to look just the same, even though they haven't been near the place in something like 10 years. When they return, Lily works on her painting on the grass, facing the sea, and wonders how she can create balance. This question has been perplexing her since the first afternoon she attempted to paint the scene on the visit so many years ago. The thought of her painting follows her to dinner, haunts her overnight, and is still there ten years later. How to transform what is merely figures on a canvas into something worth looking at? Something worth giving up the family life that Mrs. Ramsey so desperately believes in and that she has pushed Lily towards (particularly with Mr. Bankes). But Lily has a vision of her life that is not domestic, is not related to merely being "nice" or making use of her "social manner" at dinner tables to come to the aid of men like

Charles Tansley who "sneered at women, 'can't paint, can't write'" but required their attention to be able to "assert himself" (98–99). The image of Lily Briscoe sitting there at the dinner table, smiling away instead of showing him the attention he is clamouring for, is delightful. It's an "experiment" she calls it, of "what happens if one is not nice to that young man there" while she herself concentrates on where her painting was lacking (100). Mrs. Ramsey sees the difference in Lily from other women: "there was in Lily a thread of something; a flare of something; something of her own which Mrs. Ramsey liked very much indeed, but no man would, she feared" (113). Is that "something of her own" the creative urge? The knowledge that marriage is not everything? Her certainty that "a light here required a shadow there" on a painting and that "a mother and child might be reduced to a shadow without irreverence" for the sake of art baffles Mr. Bankes (59). Her ability to observe light and shadow and create a picture sets her apart from the others, to know that "it was a question…how to connect this mass on the right hand with that on the left. She might do it by bringing the line of the branch across so; or break the vacancy in the foreground by an object (James perhaps) so. But the danger was that by doing that the unity of the whole might be broken" (60). She shares these things with Mr. Bankes and then feels that because "it had been seen; it had been taken from her" and she wonders if she could marry him, like Mrs. Ramsey wants her to (60). But at the dinner table, she remembers "all of a sudden, as if she had found a treasure, that she too had her work. In a flash she saw her picture, and thought, Yes, I shall put the tree further in the middle; then I shall avoid that awkward space" (92). This thought protects her throughout the rest of the dinner; when Charles Tansley requires her "niceness" she remembers that the "next morning she would move the tree further towards the middle and her spirits rose so high at the thought of painting to-morrow that she laughed out loud at what Mr. Tansley was saying" (92). She can afford to be generous because she has the salt

cellar that she had put on a flower in the pattern of the table cloth that reminds her of "her work" and the promise of her work gives her something *else* (92) .

But, Time Passes. As Sparks points out in her discussion of the plants in Woolf's books, originally the garden of the house has "many of the iconic garden flowers of Woolf's own childhood" like an escallonia hedge, evening primrose, pampas grass, and clematis. But during this phase of the book the garden is neglected and weeds begin to infiltrate the blooms. Poppies grow among the dahlias, artichokes amongst the roses, carnations in the cabbages (Sparks). And when the family return to Cornwall (for Cornwall it will forever be in my mind) Mr. Bankes is not there, it is just Lily, her painting, and Mr. Carmichael dozing on a lawn chair. She has escaped the marriage that Mrs. Ramsay had been planning for her with Mr. Bankes, but only "by the skin of her teeth" because of her work. "She had been looking at the table-cloth, and it had flashed upon her that she would move the tree to the middle" and the thought comes immediately after that because she knows she will move the tree she "need never marry anybody, and she had felt an enormous exultation" (191). She and Mr. Bankes have formed a friendship, but not a romance and that is enough for her. Sitting down on the grass in a moment of despair, she examines "with her brush a little colony of plantains. For the lawn was very rough" (210). Sparks posits that now "all that is left is the lowly plantain" because the lawn has not been well-tended in the 10 years they've been gone. (I'll have to lend them my husband and his paring knife that picks weeds out of our grass for hours at a time during the summer. And my three children who have been trained to spot dandelions for him.) Musing about her unspoken connection to Mr. Carmichael ("some notion was in both of them about the ineffectiveness of action") against Mrs. Ramsey and Charles Tansley ("it was her instinct to *go*") she stirs the plantain with her paintbrush "idly" and sees "ants crawling about among the plantains which she disturbed with

her brush—red, energetic ants, rather like Charles Tansley" (212–213, emphasis mine). Plantain is a symbol for Lily of the everyday world that is separate from her work world. She stirs the plantain with her paintbrush as she waits for inspiration and the emotion of the moment to take hold of her again. It's a resting spot where she can understand "ordinary experience" before she can go back to holding the scene "in a vice and let nothing come in and spoil it" (219; 218). "One wanted…to be on a level with ordinary experience, to feel simply that's a chair, that's a table, and yet at the same time, it's a miracle, it's an ecstasy. The problem might be solved after all" and it is only by stirring the plantain, seeing Mr. Ramsey and the children landed at the lighthouse, and sharing a moment of understanding with old Mr. Carmichael that she can hold all those things in tandem (218). The connection of humans and earth, and her ability to observe them and move them with her brush where she will all come together in her picture "with all its greens and blues, its lines running up and across, its attempt at something" (225). The book ends as she suddenly draws a line in the centre, the tree that she had thought she would move to the middle all those years ago, at supper with the family. "I have had my vision" she says, and can lay down her brush "in extreme fatigue" (225).

Seed Nine: Gendered

I didn't think that a big part of this paper would become a discussion of Lily Briscoe. But I do think about her often. As someone who DID marry, who has always assumed that the whole POINT of life is to marry and have lots of children, and who is now struggling to have a vision of life outside of my children's lives, I think about her often. About any woman who chooses a life other than that of the action

and activity and constant weariness of motherhood. Of being able to observe the landscape and the sea for hours at a time, rather than have to sit reading stories to James and placate a husband's anxieties. I dream of the day my children are older and perhaps I will have the rest of my brain and vision back. This paper, this journey to find plantain, the return to academia and the desire to write and create, all feels like the journey Lily goes on through the book. Sitting at a dinner table surrounded by others and their journeys, (Mrs. Ramsey's many children, Paul and Minta's engagement, Mr. Bankse's love for Mrs. Ramsey) she has her own journey: to create an image of what she wants life to look like. And it keeps her going through the losses and the loneliness. And isn't that what we all need? Could this paper be my version of Lily's painting? But it is about *plantain; I have taken almost an entire year to stir it with my paintbrush. This deep dive on plantain has revealed it to be so much more than a symbol of just the everyday, or of neglect ("for the lawn was very rough"). It has become like family to me.*

I also remembered, scrolling back through photos of my first research trip to England, that the one show I went to while I was in London was a live theatre version of Orlando*! Emma Corrin from "The Crown" played Orlando and there was a whole chorus of Virginia Woolfs behind them. It was amazing.*

Leaf Ten: Frog Leaves

I had always known that I wanted to dedicate a large portion of this paper to Indigenous perspectives of the plantain. But I struggled to do this until late in the writing process. This is partly due to the fire in the Humanities building that kept one of my library books inaccessible

for several weeks. Partly because it's the portion of the paper I feel most inadequate in writing. I am not Indigenous, I come from a first generation immigrant family on one side (my mother moved here from England when she was eleven) and perhaps a third generation immigrant family on the other side (all of my father's grandparents came from Europe—Austria and Poland—as farmers). I can only relate what I find in books and in videos and podcasts about Indigenous practices and knowledge with the greatest of respect.

The book that was stuck in the Humanities building has already been mentioned: Mary Sisiip Geniusz's *Plants Have so Much to Give Us, All We Have to do is Ask* that Sarah recommended. I had read the introduction and quickly skimmed the entry on plantain some months ago (I remember taking it to a park near the Gold Bar Water Treatment plant in the early fall while my daughter had dancing. I lay on the ground under a tree and read and made notes and I had never felt so completely *academically natural*) but then hadn't picked it up since. I had been scouring the internet trying to figure out a) which tribe was it that Josslyn had met in New England that had named it "English man's foot" (which I never discovered) and b) what is plantago major called in any Indigenous language?! Cree? Anishinaabe? Potawatomi? I finally retrieved this book from Humanities and thought to look at the page on plantain again. There were several names listed right there on the page: Ginebigowashk, omakakiibag, mashkiigobag. When I Google these terms I immediately find a video from the Red Lake Agriculture Department (located in northern Minnesota) called "Ojibwa Wild Medicines Harvest: Plantain Omakakiibag." It was that easy. In this video, the host, Linda Black Elk[22] tells us that it is in Ojibway that it is called omakakiibag and that this translates to "frog leaves." I laughed. Another

[22] Interestingly, it turns out that she wrote a chapter in *Plants, People and Places* which was edited by Nancy J. Turner. Black Elk's chapter is called "From Traplines to Pipelines: Oil Sands and the Pollution of Berries and Sacred Lands from Northern Alberta to North Dakota."

rhizomatic connection of habitat studies: my new habitat guide is related to my very first habitat guide, the wood frog. Because of course it is. As mentioned earlier, the key take away from *Plants Have so Much to Give Us* is Geniusz's insistence that delineating between "indigenous" and "imported" plants is a waste of time. A "Euro-American" professor had sniffed at daylilies because it was "an introduced plant," while the "real Indians" began digging it up and "taking home supper and enough bulbs to plant in their backyards too" because it is edible (25)! "Indian folk are pragmatic" she says, just as Kimmerer did. If a plant is useful and a "good neighbour," what does it matter where it comes from? More from Geniusz a bit later.

I am slightly obsessed with podcasts, so one of my research methods was to search "ethnobotany" in Apple podcasts. At that point in time the most recent episode of a podcast called *Ologies* was an episode called "Ethnoecology with Leigh Joseph." Leigh Joseph is a member of the Squamish First Nation from an area just north of Vancouver, BC, who has an MA in ethnobotany from the University of Victoria where she studied under Nancy J. Turner[23]. She is just finishing her PhD research and has published *Held by the Land*[24], a gorgeous book which I promptly ordered. She and the *Ologies* host, Alie Ward, provide a fascinating overview of ethnobotany. Joseph defines ethnobotany as the "study of cultural interrelationships between people, plants, and place." Joseph points out that the term ethnobotany has "very colonial beginnings" as it was a very "extractive area of research" that was brought in by the colonizers who wanted to learn all about the use-values of certain plants for extraction and export purposes. This is gradually changing as more and more Indigenous voices are being heard, and there is more awareness around the respectful harvesting of useful plants, rather than a sort of

[23] Interestingly, I have a pile of Turner's books sitting on the floor of my office, waiting to be read for this paper, which I requested from the library before hearing her name from Leigh Joseph!

[24] Interestingly, scrolling through my pictures from Victoria, BC, I discovered that I had snapped a picture of the cover of this book while shopping at Munro's Bookstore, before I had even heard of Leigh Joseph.

clearcutting type of mentality (take all that is useful and run!) Joseph discusses her fascination with the scientific information she was gathering in her biology classes, all the new terms and names she was learning, but that she felt that "there wasn't the space for me to insert myself and my culture and me personally in…the methods of writing I was learning." For her as a Squamish woman, her understanding about plants and writing about plants was much more relational than western science was allowing. She outlines the crucial difference between a colonial/extractive gaze and that of an Indigenous person in her book: "For example, if I look out at a standing *xápay'ay* (western red cedar), and I see this as an economically important and valuable tree that can make money, that will lead me down a certain path of thinking and valuing the tree. Or I could look at that same tree as my relative and consider the needs of that tree, what I can do to care for the tree and its habitat, and the gifts it may offer me in exchange" (12). Joseph states further in the podcast that "all plants are considered important" in the way all of us are "connected to everything in our natural environments," not just the beautiful or useful, or even the native ones. Alie Ward asks Joseph about invasive plant species and wonders if we "should be mad at them" the "interlopers"? Joseph's answer brings with it mention of a familiar plant-friend: "There are plants that have originated from elsewhere that have been naturalized in an area and some examples from Squamish would be broad-leaf plantain, for example, has become really integrated into local ethnobotanical practices…there are examples of plants that are not considered native but do get invited in in terms of really valuing their role and the gifts that they carry." Further to this, she says that it never sat well with her "just how evil invasive plants were made out to be, it was almost like we were going to war…a lot of these invasive plants are extremely difficult to remove effectively" so she has adopted the practice and understanding not of going to war against invasive plants but of "creating space for endemic plants to come back

onto the landscape" instead. This continues her practice of building relationships with culturally important plants and of helping those who might be in relationship with those plants also (the soil and pollinators for example). Often, however, we can learn from the invasive plants and utilize them for something as well, and so we need to be careful which plants we wage war against. She urges us to learn from the plant itself on a practical and a spiritual level and from the teachings that might be gained from how animals use the plant as well. This is interesting in terms of plantain, as I have found references to it being part of birdseed, that rabbits eat the leaves….a website called "Calm Healthy Horses" says that "plantain, chicory, and yarrow are fine for horses to 'snack' on…but not to 'feast' upon, which is what will happen if they are SOWN" for food specifically ("Desirable Pasture Species"). It is also one of the best ways for a goat to "settle an upset tummy" ("Useful Weeds") apparently, perhaps after it has eaten too many tin cans?

But I've gotten distracted, I wanted to go back to Mary Siisip Geniusz, partially because Joseph references her book *Plants Have so Much to Give Us, All We Have to do is Ask* in *Held by the Land*: Joseph says that not only do we need to ask plants for their gifts, but that "plants have so much to *teach us* and all we need to do is *listen*" whether in dreams or through the teachings of our ancestors who have already built relationships with the plants[25] (31, emphasis in original). Geniusz shares the valuable Anishnaabe teaching that humans are "the weakest" of all life forms (*Plants* 15). There are the "elder brothers…the minerals, the rocks, the wind and the rain and the snow and the thunder beings" and then the "second brothers" or the plants: "the trees, the greeners and the non-greeners" (15). The third are the "nonhuman animals, the four

[25] Interestingly, it turns out that reading under a tree in summer time does nothing for your retention of the reading material. I have almost no recollection of the introduction of this book, but a very clear memory of the tree, the wind, the sound of the aspen leaves in the wind, and the blue jay that landed in the branches above my head that day.

leggeds, the flyers, the creepers and the crawlers and those who swim" and the fourth are "the youngest brothers, and therefore the most vulnerable" because "they alone need all three of the other orders of life to survive at all" (15). Geniusz identifies herself in the United States as an immigrant, as she was born in Canada. She knows "the temptation to remember the homeland as a better place than the land one is living here": that this same "'pining for the homeland' is…the reason that European academics have for generations insisted that all of the useful plants were brought here either intentionally or unintentionally by the European settlers of North America" (25). Her teacher, "Kee" finds this hilarious, "'Yah, this whole continent must have been just solid rock'" before the Europeans arrived (25)! She and Geniusz know that people have been moving on and off Turtle Island for years: "The native peoples of Alaska still visit their family members who are only a short boat trip across the Arctic waters in Siberia. Since people have gone back and forth for millenia, the plants must have done the same" (25). Though some of those plants that are now here are a problem, "we have to deal with the land as it is," and it would be helpful "if everyone adopted a more indigenous philosophy about plants and started to utilize the virtues that different plants have to share with us" (26). For Geniusz (and for Ralph Waldo Emerson who she quotes as saying a weed is "a plant whose virtues have not yet been discovered") a weed is a "plant growing where the ignorant do not want it to grow" (26). There is nothing intrinsically bad about any plant, if we just ask the right questions of the right beings.

Geniusz also touches on a key part of Anishnaabe culture and ethnobotany in her musings on the use of story in teaching about plants. She strives to capture "the right balance of Story to other information" in her teaching and her writings because though the science of plants is very important, the stories of her people (she uses the example of the story of Naanabozho and the "Dancing Cattails" which she is not sure she should include in the book or not) are crucial for

understanding. She compares these stories to literature: sometimes they "do not spell out the lesson" in a straightforward manner, "some are the kind that one can ponder over a lifetime" (28). And "as with all literature, one can only understand as one's experience has prepared the ground for one's cognition" so she includes even those stories she herself does not understand *right now* in hopes that it will help her later self, or someone who is reading the story who has the lived experience to understand it. We are, again, always in the land, on the land, in relationship with the land. We cannot remove ourselves or our understandings from our interactions with the more-than-human world.

I do think there are non-Indigenous authors who have similar instincts, and a similar relationship with nature, that I have been drawn to recently. I do not want to be seen to be trying to appropriate the sentiments and teachings of ethnobotany or the Indigenous peoples in my writing of plants and earth. Nor am I trying to say "white people do this kind of writing too," I merely want to show that a connection to land, cycles of time and weather, and the non-human world, are important to many peoples and in many contexts. Katherine May, (who I referenced earlier) a writer from Whitsable,[26] Kent, in many of her books, uses walking and the land and weather, to discover things about herself that she otherwise would not have found. I think I first found Katherine May through my favourite podcast, *Everything Happens* by a Canadian academic named Kate Bowler. Kate was diagnosed with terminal colon cancer at age 35 and is "still here" as she always says. Her podcast often focuses on how we live post-trauma, post-chaos, and in the middle of all of the things that make life beautiful and terrible all at the same time. Kerri ní Dochartaigh, a Northern Irish writer I discovered through Katherine May's

[26] Interestingly, my mom and I and two of my cousins got stuck in Whitstable's train station during a solar eclipse once.

podcast, *How we Live Now*, writes in *The Thin Places: A Natural History of Healing and Home*[27] how a connection to moths, rivers, oceans and the seasons helped her come to terms with the trauma she experienced living in Derry, Ireland during the Troubles (the conflicts between Catholic and Protestant paramilitaries which I have been researching for my research assistantship).

I have recently been reading May's most recent work, *Enchantment: Awakening Wonder in an Anxious Age*. In this book, she finds herself attempting to teach her son, Bert, about the forest, to share her knowledge and amazement at its beauty, to teach him the gift of its peace and calm. She gets only a mild interest from him; as a boy he "immerses himself—quite literally—in a series of deep puddles near the car park" or he darts between trees "pretending he's catching Pokémon" (33). But she perseveres, believing that "the forest…will stay with Bert as he ages" because it is "a complete sensory environment, whispering with sounds that nourish rather than enervate, with scents that carry information more significant than 'nasty' or 'nice'. It is different each time you meet it, changing with the seasons, the weather, the life cycles of its inhabitants" (34). Her wish for her son is to "inhabit deep terrains" in a gentle, knowing, loving way to "learn to tread lightly through them without trying to own or enclose them, to revel in the bounty of these shared spaces, their place in our collective practice and communal imagination" (35). This *feels* the same to me as what Leigh Joseph writes in *Held by the Land*: that there is a depth and breadth and knowing that comes only to those who listen and look without attempting to change or own. A respect for the land teaches a respect for life, and without that we are missing something essential. Crucially, both Joseph and May involve themselves and their children in

[27] Interestingly, Robert Macfarlane wrote a blurb for this book which appears on the front cover saying "I don't think I've ever read a book as open-hearted as this...It resists easy pieties of nature as a healing force, but nevertheless charts a recovery which could never have been achieved without landscape." Oh sir Robert, you of the dandelion poem and *Underland* fame, you always get it right.

this journey; it is impossible to stand apart from the learning. This reminds me also of Szabo-Jones and her jackrabbit; she has to see *through* and *with* herself and her own lived experiences to see the rabbit on the street, just as Joseph and May do to see Squamish territory and Whitstable respectively.

For Kerri ní Dochartaigh, it is water that revives and reminds her of herself. Living in Derry as a child, she witnessed traumatic events like a British soldier being shot in front of her and her house was petrol bombed (her father was Protestant and her mother Catholic, but once he left their family they were targeted as outsiders in a mostly Protestant housing estate) among other events which left her with a complex post-traumatic response that led to suicide attempts, an alcohol addiction and severe depression. She had vowed never to live in Ireland again after this, and moved around from Bristol to Edinburgh, trying to make peace with what she calls the black crow of depression that followed her. She says she "took herself to Cornwall"' for the first time after facing a "terrifying sense of breaking point" (157). Whether it was Virginia Woolf that drew her there (she has expressed her love for Woolf in various podcasts I listened to) or not, she ends up in St. Ives (where Talland House, the model for the house in *To the Lighthouse,* is). She says it was "blue and golden, so full of the sense of time and its unfurling" and she began "slowly, and with a sense of certainty that has not left me since, to feel different" (159). Inside her body that "had dragged itself into other bodies of water in the past" there was another self that was beginning to grow and emerge. She had experienced bodies of water that were "colder, darker and deeper" than the golden and blue harbour of St. Ives, "bodies of water that I had tried to drown my own body beneath" (159). Dochartaig realizes that "it was the first time I had ever sat, alone by the water, and felt glad that my body was still mine…that *I* was still there" (160 emphasis in original). She feels an awakening, an understanding that "there are places that we

wish to forget for the rest of time but that are part of us, somehow, their barren, salty pathways form the lines of our insides" and that to be who we are, we need to accept these places both inside and outside of ourselves (168).

And then there's Nancy J. Turner, a settler colonialist writer who has worked extensively with First Nations peoples (especially in the Pacific Northwest), in what feels like a combination of settler writing and Indigenous sensibilities. I first encountered her in an online version of Appendix 2: Names of Selected Native Plant Species in Indigenous Languages of Northwestern North America in *Ancient Pathways, Ancestral Knowledge: Ethnobotany and Ecological Wisdom of Indigenous Peoples of Northwestern North America* which had translations for plantain. Finding it online spurred me to request the books (both Volume 1 and 2) from the library, along with *Plants, People and Places* (the printed outcome of a symposium in May 2017). This is what made up the pile on the floor in my office that reproached me for weeks and weeks. When I finally sit with them (yes, on the floor), I find a treasure trove of Indigenous knowledge presented in a respectful and academic way. Plantain appears in *Ancient Pathways* in a couple of ways: first in Table 7-1 "Examples of medicinal plants used by Indigenous peoples of northwestern North America" (423) and second in a description of medicinal plants specifically for treating "skin ailments, injuries, and infections" (444). Along with plantain, Table 7-1 includes our friend salal (the leaves can be mashed or bruised and applied to burns, similar to plantain), rattlesnake plantain (*goodyera oblongifolia*), chokecherry, and highbush cranberry (otherwise known as the kalyna berry, very important to Ukrainians as a symbol of spring and food source). Plantain itself is described as a poultice for "burns, stings, sores, and skin infections" (vol.1 423). Turner calls it an enigma as some believe that it originated in Eurasia, but "the plant database of the United States Department of Agriculture suggests that it may be

native in parts of North America" and Macoun (hello again sir!) "cites both native and introduced populations near Sidney, British Columbia" (also hello!) (445). This confusion centers around there being Indigenous names in "over twenty languages and major dialects in the study region" of the Pacific Northwest (445). Some of those names, found in the extended Appendix on the University of Victoria's website, echo the Ojibway "frog leaves". For example, in Squamish, the name is *słíʔław'in' tł'a wexés* or 'little bed/mat of the frog' and in the Okanagan language it is *skew'ark'xníkst* or 'frog leaves (Appendix 151-2).

Further to this plantain-specific information, Turner includes huge amounts of general history on Indigenous plant-based practices and the various systems they used for "caring for their lands and the species on which they rely" (vol.2 148). Her comments on these management systems feel very reminiscent of Reo and Ogden's suggestion to follow Indigenous knowledge systems to handle invasive/escaped species. Her research revealed that there have been methods "developed to sustain and promote their plant resources…based on the plants' natural regenerative capabilities" that are based on "thousands or tens of thousands of years" of evolutionary behaviour of the plants (vol.2 150). These evolutions emerged to deal with the plants interaction with various types of disturbance (mostly natural) and the Indigenous stewards observed the evolutions and adapted their use of them accordingly. Turner says "the complexity and sophistication of traditional management techniques, processes, and protocols seem to reflect a considerable time depth. It is reasonable to assume that the systems for sustaining certain resources and creating and maintaining particular habitats and landscapes have been developing ever since people entered the area" (vol.2 153). Practices such as partial harvesting, pruning, selective burns, weeding, transplanting, and many others, have been used at different times on different plants to keep them thriving and healthy. This slow, long term, familial way of caring

for the plants allows for the introduction of the "good neighbours" like plantain without losing their gifts to a land management policy that would just eradicate invasives without watching them carefully first.

Seed 10: Plantain Poems

Looking for plantain poems is almost impossible. They all come up about bananas and fruit and yellow peels, and plantain chips. Does no one want to write a poem about the small grassy thing they step on as they rush from pillar to post? It's curious that they are named/called/recognized as the same thing, this causes great confusion in my research. I've looked in books I already have, like Alice Oswald's book of poetry Weeds and Wildflowers. *While she writes "Bristly Ox-tongue," "Thrift," "Scarious Chickweed" and "Hairy Bittercress" into poetry, the humble plantain has escaped her notice. Scouring* Open Wide a Wilderness: Canadian Nature Poems *brings herons, sparrows, trout, blackberries, bears, bees. Poring over each poem, line by line, I find a poem by Julie Berry, "daisy cole's woods." In the woods she notes that "thistles are edible when peeled/plantain's good for burns" (379). A person who accompanies her disappears dramatically at the end of the poem. It's a completely random poem, with this medicinal reference to plantain just sort of dropped in, as it would be if you were walking through the woods listing off plants that had use-value. I suspect poems about plantain are less common than poems about the heron, or bears, or even flowers. They are often paired with the adjective "humble" as they are none too*

beautiful, nor scarce. Perhaps one day I shall write an "Ode to a humble plantain" to rectify this. I also search through Flint and Feather: The Complete Poems of E.Pauline Johnson (Tekahionwake) *and though there are many beautiful poems of crows, corn tassels, cedars, lichens, and fire flowers, no plantain is to be found.*

The whole project is beginning to feel selfish, self-centred—what have I learned, how has this thesis impacted MY life. What connections have I found to plantain through my eyes? The question always becomes for me: how to make it more outward facing, more scholarly? I can't help but think it would have a very different feel if I were writing in a different season. We have been through the deepest of deep freezes and though it is thawing today, it is not spring. There is not a sense, yet, of fresh beginnings and seeds taking steps across countries. Things are stopped, frozen, or mired in mud at least. Just as I suspect this paper would be different in a different season, I know that someone else taking on a habitat study of plantago major *would have written a different thesis. There is something about the poetics of nature, of natural history, that is personal. Reading about* To the River *by Olivia Laing, I thought to myself "This was the book I wanted to write!" She traces the River Ouse in Sussex, where Virginia Woolf lived and died, from "source to sea." But when I read the actual book I realize that it isn't the book I would have written. She included things that I didn't find interesting and left out things I would have focused on. Nature speaks to us all in different ways, and we all notice different things. Is this why writing about nature is often much more personal than other non-fiction writing? A walking tour of a river involves every aspect of one's life, and we learn through Laing's narrative that she is afraid of cows, has just gone through a break up, and has a fascination with Old English and Dante. Sitting on the side of the river near Barcombe Mills she muses on what can happen when you are in a place that you know*

well: "Memory is a funny business. Sometimes, moving through water, I feel I'm washed of all thoughts, all desires: content to luxuriate like a starfish...I'm not sure I know even my own name" (113). But then on other days, she writes that"I have felt the past rise up upon me like a wave...the present is obliterated, but what the eye sees, what the ear hears, it is not possible to share" (113). Other people writing about plantain would not have found themselves obsessed with parakeets or woodland walks on the journey. We bring ourselves with us when we encounter the more than human world, we can't help it, but that impacts what we see, how we see it, and what it makes us think of, how we read and hear it. The question always comes up: what do we learn about ourselves when we study the natural world? What can we take away from it? What does it teach us? Ricou echoes Laing: "The seeing I'm after will mean that salal is not lost on us. Somehow we will know a plant; somewhere we will appreciate the plant's point of view; somewhere we can look at a flower before we have a name for it; and we will allow, even within the standardizing forces of a shared language, that a habitat will mean differently to different plants and birds in different seasons, differently observed" (Salal 184). And we ourselves make up part of the habitat around the non-human thing we are near. This draws me back to Liza Szabo-Jones and the jackrabbit in Edmonton in winter and her reflection melding with the bunny through the window. We as humans have to be there to observe, but have to let the jackrabbit be seen. I think about other writers who write things I have enjoyed, Robert Macfarlane especially: his most recent book, Underland: A Deep Time Journey *illustrates my point further. In researching caving, the geology under our feet, and the myths of the underground, he has chosen a journey that is fundamentally his own. He is very much a character in the deep time journey. Within the first few sentences of the text he situates how he relates to the subject matter: "I have rarely felt as far from the human realm as when only ten yards below it, caught in the*

shining jaws of a limestone bedding plane first formed on the floor of an ancient sea" (11). We are reliant on, and live within, the more than human world, and attempting to take ourselves out of it altogether is impossible. We cannot pass on the lessons we have learned without placing ourselves firmly on the land, in the story. Underland *is where I first learned about Suzanne Simard[28] and Merlin Sheldrake and mycorrhizal fungi. Though fungi are sort of out of the scope of this paper, I was listening to a podcast with Sheldrake, as he explained why he studies fungi and what his hopes for his work on popularizing fungi are. His answer seemed to fit exactly into my thoughts about why we study plants, why I studied THIS plant, and what "the point" is: "One of the things that fungi teach is is about the way that life is relationship, the interminglement of embodied being on the planet....through this discussion of fungi it might become clearer that life is relationship and organisms can't perhaps be thought of somehow separate from the many other organisms they are living with..that being is always being with and becoming is always becoming with." ("Merlin Sheldrake on Embodied Entanglements") Sheldrake admits this is not a new idea, it's an idea that is "present in so many traditional knowledge systems." The world is a world of "interminglement" and "intimate reciprocal dependence." This speaks to my fascination with plantain, that we relate to it, that we are related to it, that we can ingest it, rub it on our skin, walk the seeds across a country, and yet not know anything about it, and not write poems to it or about it. As Robin Wall Kimmerer has discussed in* Braiding Sweetgrass*, it's harder to exploit something when you know its name and understand its life—she speaks to all the beings around her so she remembers that they are* living*, just as she is. She calls it "the grammar of animacy" (55) and this*

[28] Interestingly, she's Canadian, and he (Robert) is one of Johnny Flynn's best friends. And Johnny Flynn is the reason I discovered Robert Macfarlane's work in the first place over a re-awakening summer when I first realized I needed to turn back to English literature after a traumatic few years away.

grammar allows a Potowatami speaker to give life to rocks, mountains, fire, water, places, plants and animals. Mason, Szabo-Jones and Steenkamp have explained ecocriticism as a method that contemplates the "(organic and inorganic) nonhuman" which "reconsiders what it means to be human and the ethics that support or deny such reconsideration (4), and this too, fits in with these thoughts.

My therapist tells me over and over again that on a journey to rediscover oneself, after a period of traumatic dissociation, that one must pay attention to what one is drawn to. What sparks a spark, what brings a glimmer of interest. For years after two miscarriages, a tough fifth pregnancy, and what was very likely postpartum depression, I was drawn only to historic romances (not quite harlequin romances, but not literary theory that's for sure). Finding Johnny Flynn's music, Robert Macfarlane's writing on walking and nature, wood frogs, and walking myself, opened me up to so many more things that brought that glimmer, that spark. A sense of enchantment with life again that calls up May, ní Dochartaigh, Joseph, and that was available to me only through nature. You could look at my research method for this entire project, and indeed the project itself as following the advice of my therapist: pay attention to what I am drawn to. And she was right, it all filters together into a wonderful whole thing *made up of pieces and parts of both the human and more than human world. And all of it together brought me back to an awareness of and a love for...LIFE.*

Leaf Eleven: Conclusion

Gary Pritchard, a Conservation Ecologist & Indigenous Engagement/Placemaking Specialist from Curve Lake First Nation in Ontario, gave a talk in February 2022 that was recorded and put on Youtube for me to find. Discussing Indigenous land management strategies and how different they are from Western "settler" strategies for dealing with invasive species, he tells us that his people had "laws that have governed the land for fifteen thousand years" and it is only in the last 587 years that things "went out of balance." His people believe that "humans are not intended to conquer and control the natural, but to live in harmony within it." When invasive species arrive, and they will, because if people move around, the plants are bound to migrate and move around also, a balance will ultimately be achieved, "we just have to understand and be patient" until that balance is found. His people, the Michi Saagiig, believe that "all species could be used and had a place in the ecosystem if you asked through the lens of spirituality: why is it here and how can we coexist together?" But, as Pritchard says, "when invasive species show up, western science tells us that they should be dealt with" in an aggressive way, in a way that eradicates them, without asking that first important question of "why is it here?" If we asked that question about plantain, maybe we would realize that it is just a good neighbour, as both Wong and Kimmerer have called it, and one that will heal us, feed us, and save us from mosquito bites in the summertime. Pritchard uses the example of the Manitoba maple, as a species, similar to plantain, that is viewed by the "settler community" as an invasive species because they don't know that it is a "prized medicinal plant" that is used by his people. For him, colonizing behaviours such as invasive species eradication, are "still leading to environmental degradation" and even further "spread of invasive species" as settlers often just replace one species with another (like the bison for cattle).

This project has taught me so much about the way natures are plural, the way they travel, the way we need to respect them, listen to them, understand them, and thank them for supporting us. Starting with an understanding of plantain as a plant that stomped it's way across North America, I learned that it was, in fact, a model of settler colonialism that could have led to much gentler interactions with the Indigenous people. Be like the dandelion and the plantain, for they do no harm, and bring useful gifts. Certainly a motto to live by for all of us, but especially those of us who inhabit land that used to belong to others. A weed mantra, for as Gary Pritchard says, his people are still looking at us and wondering what lesson they are supposed to be learning from us. We are the epitome of an aggressive invasive species, but one that they welcomed and tried to understand when we arrived in their territories. I thank them for their patience with us, and am grateful to be allowed to live on this land and learn from their teachings, and follow plantain around to see where it might take me.

Works Cited

"*Achillea ptarmica.*" *Wikipedia, The Free Encyclopedia,* Wikimedia Foundation, 24 Sept. 2023, en.wikipedia.org/wiki/Achillea_ptarmica.

"Bald's Leechbook." *Wikipedia, The Free Encyclopedia,* Wikimedia Foundation, 5 March 2024, en.wikipedia.org/wiki/Bald%27s_Leechbook.

Bassett, Ivan John. *The Plantains of Canada.* Agriculture Canada, 1973.

Bewell, Alan. *Natures in Translation: Romanticism and Colonial Natural History.* John Hopkins UP, 2017.

Bringhurst, Robert. "The Critic in the Rain: A Review Essay." *BC Studies,* no.147, 2005, pp. 103-107.

Canada's Seed System: A Summary Description. Canadian Seed Institute, 2017.

Chaucer, Geoffrey. The Canon's Yeoman's Prologue and Tale. *Harvard's Geoffrey Chaucer Website*, chaucer.fas.harvard.edu/pages/canons-yeomans-prologue-and-tale. Accessed 6 January 2024.

"Cinchona." *Wikipedia, The Free Encyclopedia,* Wikimedia Foundation, 28 Feb. 2024, en.wikipedia.org/wiki/Cinchona.

"Charles Leder." *Wikipedia, The Free Encyclopedia,* Wikimedia Foundation, 2 Jan. 2024, en.wikipedia.org/wiki/Charles_Ledger.

Crosby, Alfred W. *Ecological Imperialism: The Biological Expansion of Europe, 900- 1900.* Cambridge UP, 2008.

"Crosswort: *Cruciata laevipes.*" *Naturespot*, www.naturespot.org.uk/species/crosswort Accessed 29 Dec. 2023.

"Desirable Pasture Species." *Calm Healthy Horses.* Accessed 20 March, 2024, www.calmhealthyhorses.com/desirable#:~:text=Plantain%20along%20with%20other%20plants,happen%20if%20they%20are%20SOWN.

DeWitt, Rachael A. Review of "Toward a Literary Ecology:Places and Spaces in American Literature". *Interdisciplinary Studies in Literature and Environment,* vol. 21, no.2, 2014, pp. 500-502.

Dochartaigh, Kerri ní. *Thin Places: a Natural History of Healing and Home.* Milkweed, 2021.

Donald, Dwayne. "We Need a New Story: Walking and the wâhkôhtowin Imagination." *Journal Of the Canadian Association for Curriculum Studies,* vol. 18, no. 2, 2021, pp. 53-63.

Dyckman, Ame. *Dandy.* Illustrated by Charles Santoso. Little, Brown & Co, 2019.

"Ethnobotany: White Man's Foot, Part Two." *Awkward Botany: Amateur Botany for the Phytocurious,* 19 August, 2015, awkwardbotany.com/2015/08/19/ethnobotany-white-mans-foot-part-two/

"Ethnoecology (Ethnobotany/Native Plants)with Leigh Joseph." *Ologies with Allie Ward,*9 Jan 2024, podcasts.apple.com/ca/podcast/ologies-with-alie-ward/id1278815517?i=1000641003108.

Fara, Patricia. *Sex, Botany & Empire: The Story of Carl Linnaeus and Joseph Banks.*Columbia UP, 2003.

Free, Mary. "Weed Watch: What are Those Patches of Leafy Greens Growing in My Garden?" *Master Gardeners of North Virginia,* 10 Aug. 2022, mgnv.org/weeds/plantago/

"Great Piece of Turf." *Wikipedia, The Free Encyclopedia,* Wikimedia Foundation,17 Jan. 2024, en.wikipedia.org/wiki/Great_Piece_of_Turf.

Gribbon, Mary and John Gribbon. *Flower Hunters.* Oxford UP, 2008

Grieve, Maud. *A Modern Herbal.* Edited by C.F.Lyell. MacMillan, 1974.

A Modern Herbal, London, Cape, 1931.

Groot, Jannetje. *The Experimental Study on the Autecology of Plantago Major.* Vrije Amsterdam UP, 1973.

Harrison, Natalie. "Media Watch: In celebration of the Jesuit's powder: a history of malaria Treatment." *The Lancet,* vol 15, 2015, pp. 1143.

Hunt, Nick. "The great green expansion: how ring-necked parakeets took over London." *The Guardian*. 6 June 2019, www.theguardian.com/cities/2019/jun/06/the-great-green-expansion-how-ring-necked-parakeets-took-over-london

Ikin, Ed. Introduction. *Wildflowers*. Kew Royal Botanical Gardens, 2021. pp. 5-9.

Johnson, E. Pauline. *Flint and Feather: The Complete Poems*. Paperjacks, 1981.

"Joseph Banks." *Wikipedia, The Free Encyclopedia,* Wikimedia Foundation, 22 Jan. 2024, https://en.wikipedia.org/wiki/Joseph_Banks.

Joseph, Leigh. *Held by the Land: A Guide to Indigenous Plants for Wellness.* Wellfleet, 2023.

Josselyn, John. *New England Rarities.* London, 1672.

Kimmerer, Robin Wall. *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knoweldge, and the Teachings of Plants.* Milkweed, 2013.

Krotz, Sarah. "The Intimate Geography of Wilderness: The Spatiality of Catherine Parr Traill's Botanical Inventories." *Mapping with Words.* U of Toronto P, 2019.

—. "Migrations: Meanwhile Down Below." *Literary Review of Canada,* October 2020, reviewcanada.ca/magazine/2020/10/migrations.

—. "Lichening." *Canadian Literature,* canlit.ca/article/lichening. Accessed May 15, 2024.

Laing, Olivia. *To the River:A Journey Beneath the Surface.* Canongate, 2011.

Longchamps, Denis. “Political Tourism: Elizabeth Simcoe’s Maps and Views of Canada (1791-1796). *Imago Mundi*, vol. 66, no. 2, 2014, pp. 213-223.

Longfellow, Henry W. *The Song of Hiawatha*. Houghton Mifflin, 2017.

Luthin, Jessamy R. “From Wanted to Weeds: A Natural History of Some of New England’s Introduced Plants.” *Maine History*, vol.49, no. 2, 2015, pp. 132-149.

Macoun, John. *Autobiography of John Macoun, MA: Canadian Explorer and Naturalist*. Ottawa Field-Naturalists Club, 1922.

Macfarlane, Robert. *The Lost Words: A Spell Book.* Illustrated by Jackie Morris. Anansi 2017.

—. *Underland: A Deep Time Journey*. Penguin, 2020.

“Maud Grieve.” *Wikipedia, The Free Encyclopedia,* Wikimedia Foundation, 25 Sept. 2023, https://en.wikipedia.org/wiki/Maud_Grieve.

McDougall, James. “ ‘The Song of Hiawatha; and the Ruins of American Literature”. *Reconsidering Longfellow,* edited by Christopher Irmscher and Robert Arbour, Farleigh Dickinson UP, 2014, pp.79-92.

Mason, Travis V. et al. “Introduction to Postcolonial Ecocriticsm Among Settler-Colonial Nations.” *ariel: A Review of International English Literature*, vol. 44, no. 4, 2013, pp.1-11.

May, Katherine. *Enchantment: Awakening Wonder in an Anxious Age.* Riverhead, 2023.

“Merlin Sheldrake on Embodied Entanglements.” *For the Wild,* 14 Feb 2024, podcasts.apple.com/ca/podcast/for-the-wild/id942809988?i=1000645350860.

Mitich, Larry W. “Intriguing World of Weeds: White Man’s Foot: Broadleaf Plantain.” *Weed Technology*, vol. 1, 1987, pp. 250-251.

Oswald, Alice. *Weeds and Wild Flowers*. Illustrated by Jessica Greenman. Faber, 2009.

Pritchard, Gary. “Indigenous Perspectives on Invasive Species.” Ontario Invasive Plant Council, *Youtube,* uploaded 21 Feb 2022, www.youtube.com/watch?v=pay6nAu62l8

Red Lake Agriculture Department. “Ojibwa Wild Medicines Harvest: Plantain Omakakiibag.” *Youtube*, uploaded by NewEra4K 22 May 2023, www.youtube.com/watch?v=gueJQTieqmY.

Pringle, James. “Alice Hollingsworth, Early Botanical Explorer.” *Flora’s Fieldworkers: Women And Botany in Nineteenth Century Canada,* edited by Ann Shteir, McGill-Queens UP, 2022.

Ricou, Laurie. *Salal:Listening for the Northwest Understory.* NeWest Press, 2007.

—. “Out of the Field Guide: Teaching Habitat Studies.” *The Bioregional Imagination: Literature, Ecology, and Place*, edited by Tom Lynch, Cheryll Glotfelty, and Karla Armbruster, U of Georgia P, 1994.

—. “Disturbance-loving Species: Habitat Studies, Ecocritical Pedagogy, and Canadian Literature”. *Critical Collaborations: Indigeneity, Diaspora, and Ecology in Canadian Literary Studies,* edited by Smaro Kamboureli and Christl Verduyn, Wilfred Laurier UP, 2014, pp. 161-174.

Rønsted, Nina. Towards a natural classification of Plantago : Chemical and molecular Systematics. Royal Danish School of Pharmacy, 2022, PhD.

Salmón, Enrique. “Kincentric Ecology: Indigenous Perspectives of the Human-Nature Relationship.” *Ecological Applications,* vol. 10, no. 5, 2000, pp. 1327-1332.

Shakespeare, William. “Romeo and Juliet.” *My Shakespeare,* myshakespeare.com/romeo-and-juliet/act-1-scene-2 Accessed 4 Feb. 2024.

Simcoe, Elizabeth P. *Mrs. Simcoe’s Diary*, edited by Mary Quayle Innis. Dundurn Press, 2007.

Slade, Benjamin. “Text of A Charm Against a Sudden Stitch.” *Beowulf on Steorarum,* heorot.dk/stitch-i.html. Accessed on 1 Feb. 2024

Sparks, Elisa Kay. “#71 Plantain”. *Virginia Woolf’s Herbarium.* woolfherbarium.blogspot.com/p/70-plantain.html. Accessed 30 Sept. 2023

St. George, Zach. *The Journeys of Trees: A Story About Forests, People, and the Future.* Norton, 2020.

"St.Ives, Cornwall." *Wikipedia, The Free Encyclopedia,* Wikimedia Foundation, 19 Feb, 2024. en.wikipedia.org/wiki/St_Ives,_Cornwall

"Summer of Weeds: Plantains." *Awkward Botany: Amateur Botany for the Phytocurious,* July 26, 2017, awkwardbotany.com/tag/plantago-major/

Szabo-Jones, Liza. "Adventures in Habitat: an Urban Tale." *Canadian Literature*. vol. 218, 2013.

Turner, Nancy J. *Ancient Pathways, Ancestral Knowledge: Ethnobotany and Ecological Wisdom of Indigenous Peoples of Northwestern North America.* Vol. 1 and 2. McGill UP, 2014.

—. Appendix 2B. dspace.library.uvic.ca/items/029c3ba7-1262-4fc0-ab1f-878fad692cfc

"Useful Weeds: Plantain." *Liberty Mission Farms: Farmington Missouri*" 16 Apr. 2022. www.libertymissionfarms.com/post/useful-weeds-plantain.

Warwick, S.I. "The Genecology of Lawn Weeds: VII. The Response of Different Growth Forms Of *Plantago Major L.* and *POA Annua L.* to Simulated Trampling". Agriculture Canada, 1979.

Waterton, Betty. *Pettranella.* Douglas & McIntyre, 1980.

"Waybread". *Oxford English Dictionary.* Accessed 23 Mar 2024. www.oed.com/dictionary/waybread_n1

"Who was Ann Leighton, or Isadore Smith?" *The Weeks Brick House & Gardens.* 29 June 2021, weeksbrickhouse.org/who-was-ann-leighton-or-isadore-smith/.

Wong, Rita. "medicines in the city". *undercurrent.* Nightwood Editions, 2015.