A Conservation Crisis in our Backyard;

Exploring the Challenge of Advocacy and Restoration in the Carolinian Ecoregion

Ava Russell
Supervisor: Tony Weis
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Figure 1. Carolinian forest showing contrast of forest line and city skyline in Toronto, Ontario. From "The Carolinian forest: highly-prized woodland," by TheForestTime.com, 2018. Copyright 2018 by TheForestTime.com

I start all of my thinking about contemporary environmental problems by respectfully recognizing the land that the city of London, Ontario, where I live and grew up, is located on the traditional territories of the Anishinaabeg, Haudenosaunee, Lenaapeewak, and Attawandaron Peoples, some of whom live in London and other settler-colonial communities, and some of whom live in the Munsee-Delaware Nation, Oneida Nation of the Thames, and Chippewa of the Thames First Nation. I am appreciative and give gratitude to these First Nations for their care, teachings, and relationship with the Earth, and am challenged to think about how I can be a better ally in my work and everyday life.

In the process of deciding what I wanted to study for my undergraduate thesis, I decided early on that I wanted to work on some aspect of conservation. I considered different provincial parks and natural areas in southwestern Ontario that I could study, and originally was largely only thinking about this landscape as being 'natural' largely in terms of the individual pieces or fragments of natural forests that still exist between large cities and farms. It wasn't until I discussed my early ideas with Dr. Tony Weis that I began to think about these small, separated forests as in fact being remnants of what existed across the Carolinian ecoregion not very long ago. The

Carolinian ecoregion covers approximately 22,000 km^2, stretching northeast from roughly the US border on the Niagara River and around the Lake Ontario shoreline to Toronto, and northwest from Grand Bend to Lake Huron (Jalava *et al.,* 2000). The Carolinian is comprised of a variety of ecosystems including woodlands, savannas, and prairies, and is home to over two thousand species of plants, as well as over 60% of Canada's species at risk including the American Chestnut (*Castanea dentata*), the Timber Rattlesnake (*Crotalus horridus*), the Eastern Mole (*Scalopus aquaticus*), and the Louisiana Waterthrush (*Seiurus motacilla*) (Carolinian Canada, n.d.; Kraus and Hebb, 2020; Long Point Basin Land Trust, n.d.).

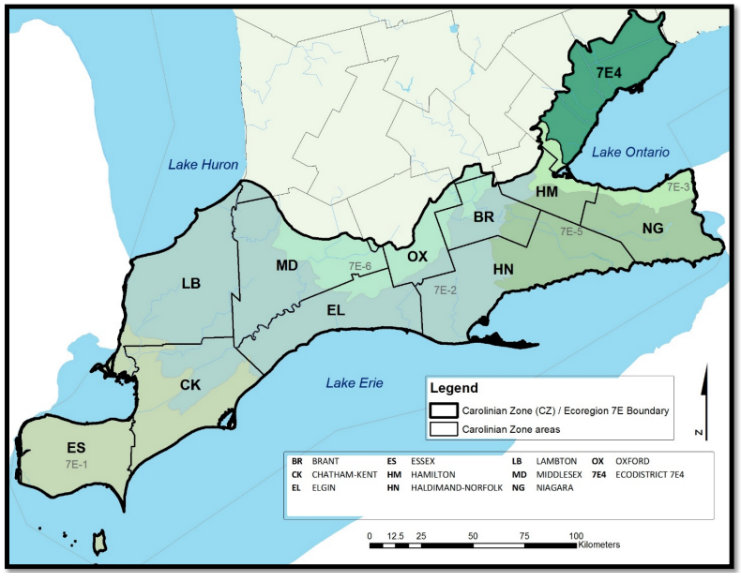

Figure 2. Carolinian Zone map showing list areas (mostly counties) and eco-districts (colour shaded). From "List of the vascular plants in Ontario's Carolinian Zone (Ecoregion 7E)," by M. J. Oldham, 2017, Carolinian Canada and Ontario Ministry of Natural Resources and Forestry Technical Report, pg 11. Copyright 2017 by Michael J. Oldham.

This ecoregion has extremely high species diversity and richness due to several unique geographical features, most significantly: a southern latitude which creates a relatively warm climate suitable for many species; deep rich soils influenced by the legacy of the last glaciation; shallow limestone plains; dolostone cliffs; and a variety of Great Lakes shoreline features which support specialized habitats such as rare shore nesting bird species (Reid, 2002). In addition to being the permanent home to many species of plants and animals, it also contains some vital staging areas for long-distance bird migrations, most famously around Point Pelee National Park.

Figure 3. Louisiana Waterthrush Photo by Joe Stephenson. From "Keeping an Eye on Carolinian Species at Risk," by Ian Fife 2018. Copyright 2018 BirdsCanada.org.

One of the first realizations I had in my early research was how little most people who live in the Carolinian ecoregion recognize the urgent ecological challenges at hand, with some important exceptions including: members of Indigenous communities (where an understanding of ecological damage also connects to a long history of dispossession from much of the land); those directly involved in conservation; and a handful of other small communities of interests (e.g. birders and amateur naturalists). Even though I am deeply

concerned about environmental problems and grew up in the region, and am a student in the Department of Geography and Environment at Western, it took some initial conversations with Dr. Weis and some digging into research for me to truly appreciate how threatened this ecoregion is and how urgent the conservation challenges are.

The Carolinian ecoregion has been described by conservation experts and biologists as being an 'ecoregion in crisis', due to several factors. Among the most important of these factors are:

- the extreme degree to which Indigenous peoples have been dispossessed of their historic territories;
- the limited size and number of protected areas (only around 1.5% of land in the Carolinian ecoregion is protected by public and privately managed land);
- the significant deforestation, fragmentation, and ongoing pressure for land-use change associated with urbanization, industrial development, roads, and agriculture;
- the relatively large number of threatened and endangered species that rely on this ecoregion for some or all of their habitat.

The more I learned, the more passionate I felt about pursuing research and advocacy about this underappreciated ecoregion, which most people think of largely in terms of its cities, towns, agriculture, and infrastructure. With the support of Dr. Weis, I decided that there could be a valuable contribution to make by investigating the conservation challenges in the Carolinian ecoregion through the lens of the ambitious conservation agenda known as rewilding. Rewilding is a way to frame and draw attention to the need for a much bigger scale of conservation policy and practice, and centers around 3 central elements, known as the '3 C's': (1) the need for large, strictly protected core reserves; (2) the need to enhance connectivity between these core reserves; and (3) the need to protect large carnivores and other keystone species (Seddon *et* al., 2011; Soulé and Noss, 1998). My thesis research seeks to answer three main questions:

- How do experts and practitioners perceive the core objectives of rewilding in relation to the particular conservation challenges in the Carolinian ecoregion?
- What do conservation experts and practitioners identify as the central barriers to rewilding in the Carolinian ecoregion?
- What sorts of collaborations exist between the organizations that are striving to promote biodiversity conservation in the Carolinian ecoregion?

Another important element of my research agenda is to examine the colonial history of the Carolinian Ecoregion, which starts with a recognition that it was known as Waawayaataning by the Neutral, Erie, Tabbacco or 'Tionontati', Huron-Wyandot and Haudenosaunee peoples, who sustainably inhabited the region for millennia prior to the arrival of Europeans (Doxtator, 2021). Indigenous Nations that reside in the Carolinian Zone home today include Aamjiwnaang First Nation, Bkejwanong Walpole Island First Nation, Caldwell First Nation, Chippewas of the Thames First Nation, The Chippewas of Kettle and Stony Point First Nation, Munsee-Delaware

Nation, Eelünaapéewi Lahkéewiit (Delaware Nation at Moraviantown), the Mississauga of the Credit, Six Nations and Oneida Nation of the Thames. In presenting research starting from the colonial history of the Carolinian, I also seek to place it in relation to the frequent tensions between settler-colonial conservation practices and Indigenous dispossession, and to think of how ecological restoration efforts could improve these relations.

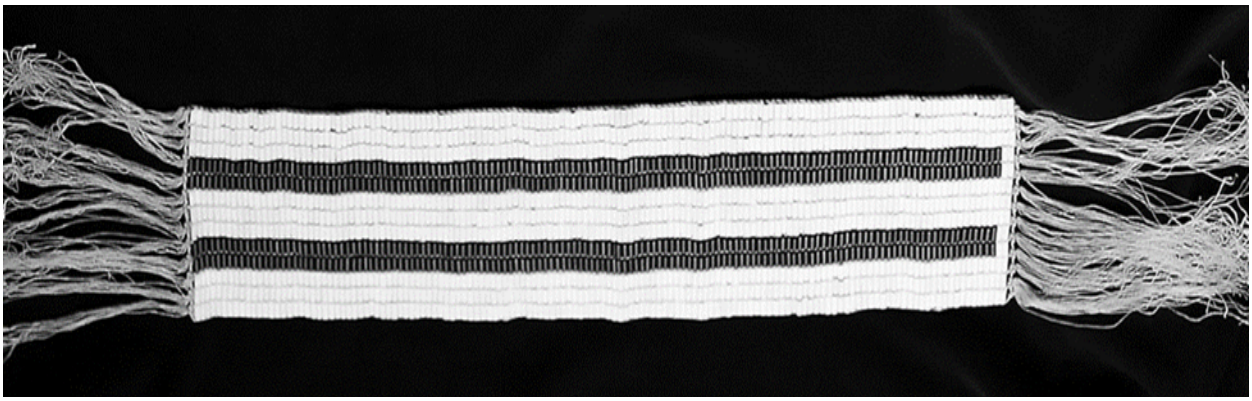

Figure 4. Two Row Wampum also known as 'Kuswenta", which is one of the earliest treaties signed between Indigenous and European Nations in 1613 which symbolizes an understanding of peace, friendship, and respect with each nation having its own canoe travelling down the river of life by Brandon Doxtator. From "Waawayaataning: History of the Carolinian Zone" by Brandon Doxtator, 2021. Copyright 2021 by Carolinian Canada.

Although some of the First Nations of Waawayaataning cleared some land for settlements and farming and periodically used controlled fires to manipulate the distribution of plants and animals, this region had over 80% forest cover at the point of European arrival in the 18th to 19th centuries (Wartman *et al.,* 2018). The First Nations of Waawayaataning maintained the biodiversity and managed to survive harmoniously without harming the surrounding ecosystems prior to colonial development. Hunting was a crucial aspect of Indigenous livelihoods and cultures; forests and wetlands were valued for interconnected cultural, spiritual, and material activities; and many First Nations of Waawayaataning placed intrinsic cultural values rooted in a recognition that humans who occupy this land are interdependent with all other life.

Critics have drawn attention to the fact that the practices of conservation have in many cases involved the dispossession of Indigenous peoples from their former territories (Dowie, 2009). The U.S. is a more celebrated case of this, but Canada has also exhibited a colonial conservation policy in many cases, as a number of national, provincial, and territorial protected areas were established without regard to Indigenous rights or Treaties and resulted in displacement and loss of livelihoods, access to spiritual sites, and untold cultural harms (Moola and Roth, 2019). One important example of this in the Carolinian ecoregion was the Land Transfer Agreement of Kettle and Stony Point First Nation. Kettle Point is known as Wiiwkwedong and is part of the Anishinabek Nation, and was dispossessed by the federal government in 1942 with the passing of the War Measures Act (Kettle Point, n.d.; Rogge, 2020). Following the end of the Second World War, the land was never returned to the Stony Point First Nation, and was instead renamed Ipperwash Provincial Park, which became a popular tourist area managed by the

province of Ontario. In 1995, a group of Indigenous activists from Kettle and Stony Point First Nation were protesting this enduring dispossession, and demanding the return of this land, and amid the protest one of the protestors Dudley George was shot and killed by a police officer on September 6, 1995. It was not until 2015 that a settlement was made, which included a $95 Million compensation fund and an agreement by the federal government to clean up the land, with control of Ipperwash Park signed over from the Provincial Government back to the Chippewas of Kettle and Stony Point First Nation in 2016. The presence of protected area designations is of course just one aspect of settler-colonial dispossession, with the First Nations of the region limited to 22 small reservations. In my research, I plan to interview some experts in First Nations who are engaged in ecological restoration in the Carolinian Ecoregion to learn about how the challenge of conservation in the Carolinian region relates to their experience of colonialism and how conservation initiatives could play some constructive part in meaningful decolonization.

Figure 5. Members of Kettle and Stony Point First Nation marching along the highway during a "Go Home Walk" to the gates of the former Camp Ipperwash in 2015 by Dave Chidley. From "Federal Government, Ontario First Nation Sign Settlement over Camp Ipperwash" by Diana Mehta, 2016. Copyright 2016 by The Canadian Press.

The USRI grant funded the historical and theoretical research that comprises an important foundation of my undergraduate honours thesis, as well as the development of my interview questions and invitation letter, which I submitted for approval through the Non-Medical Ethics Review Board to ensure my methods aligned with Western's ethics standards in interviews. Once approved, I will interview experts from government agencies, First Nations communities, and non-governmental organizations who are working to protect and expand Carolinian ecosystems. My essential hope is to draw upon their expertise about the state of conservation initiatives in the Carolinian ecoregion and to learn about how they interpret an ambitious agenda like rewilding and if it would help with things like building constructive partnerships and setting targets.

Some of the primary conservation groups working in the Carolinian include Carolinian Canada, the Nature Conservancy of Canada, Birds Canada, and Forests Ontario, and there are also multiple land trust groups like the Thames-Talbot Land Trust pursuing land acquisition and forest rehabilitation programs. Although I am early in my research, it seems clear that all of these organizations could benefit from donations and volunteers. Ultimately, I hope that the analysis in my thesis will be of interest to the individuals I plan on interviewing, and that I can present my

findings in a way that could reach environmentally-conscious citizens within southwestern Ontario more broadly and help to enhance awareness about the importance of conservation in the Carolinian ecoregion.

Some Links to Donate:

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