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EVOLVING NARRATIVES OF CULTURES AND HISTORIES
FINAL REPORT

From Manomin to 'Wild' Rice and Back Again: Understanding the Transformations of a Native Ontario Grain and Indigenous Cultural Resurgence
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Chippewa Women "Gathering Wild Rice" (by Seth Eastman in Eastman 1853).

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Acknowledgements
Lakehead University respectfully acknowledges its campuses are located on the traditional lands of Indigenous Peoples. Lakehead Thunder Bay is located on the traditional lands of the Fort William First Nation, Signatory to the Robinson Superior Treaty of 1850. Lakehead Orillia is located on the traditional territory of the Anishinaabeg. The Anishinaabeg include the Ojibwe, Odawa, and Pottawatomi nations, collectively known as the Three Fires Confederacy. Lakehead University acknowledges the history that many nations hold in the areas around our campuses, and is committed to a relationship with First Nations, Métis, and Inuit Peoples based on the principles of mutual trust, respect, reciprocity, and collaboration in the spirit of reconciliation.

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EXECUTIVE SUMMARY

Background: The Issue

This project was completed in partnership with Obishikokaang (Lac Seul First Nation – Dowsley and Taylor-Hollings) and members of Alderville First Nation (Loukes) in Ontario. Manomin (Manoomin in Alderville) is a native Canadian grain (*Zizania palustris)* that can grow unaided but, according to oral history and Anishinaabeg traditions, it grows better when its relationships include people. Indigenous people have also spread the grain to new areas and managed it in various ways, expanding its range. Thus, it is not really wild, but has long been in relationship with Indigenous people in central North America around the Great Lakes.

Manomin has been a key carbohydrate for Indigenous peoples in Ontario for millennia, as indicated from archaeological evidence like phytoliths found in carbonized residues on ancient Indigenous pottery, precontact parching pits, and archaeological sites located beside manomin stands. It is referenced in Anishinaabe Midewiwin oral histories as a causal factor for some early migrations of groups from the Atlantic coast into Ontario. It was part of the diet of most Indigenous peoples within its range, including those who farmed maize and other crops in southern Ontario. From the arrival of Europeans, through the Fur Trade period up and until the mid-19th century, manomin was a key food traded by Indigenous peoples to newcomer Europeans, and thus was instrumental in their explorations of the continent and their ability to travel and trade.

Through the last two centuries, hydroelectric dam-building, infrastructure development, and pollution severely altered the locations and quality of manomin habitat. Colonial impacts caused social and economic restrictions that also reduced the amount harvested. However, many Indigenous communities in Ontario and adjacent areas are working towards reviving or increasing their harvest. In particular, they want to share with community members and to pass on proper care and ceremonies to the youth, as part of a broader movement of cultural revival.

Objectives

Much is known about the biology and growth conditions of manomin, as it is harvested commercially in some areas from lakes, and is used as a commercial crop in paddy-farming in the U.S.A. This project instead sought to synthesize knowledge regarding: the history and modern use of this plant by Indigenous peoples in what is now Ontario, the causes of the decline in use, and to begin to understand how some Indigenous communities are working to restore their relationship with it.

Results

It is evident that manomin has been in relationship with and harvested by Indigenous peoples for millennia in what is today Ontario and adjacent areas. When European newcomers arrived, they learned about manomin from Indigenous peoples and relied on it as an important food source. Colonial decisions, often breaking Treaties signed with Indigenous communities destroyed most of the manomin in the province. Most of this destruction was caused by the damming of nearly all river systems. Even though such colonial impediments created many challenges, people continue their traditions with manomin, and others are also finding new ways to reconnect with manomin.

1. Revitalization relationships with manomin are widely supported by Indigenous people across Ontario and there are many restoration projects underway across the range of manomin.
2. Indigenous people we spoke to are teaching about manomin as a route to inform both Indigenous and non-Indigenous people about relationships with the other-than-human world and harvesting manomin within an Anishinaabe cultural framework; some want to share this information with outsiders and some do not.
3. There is a diversity of opinions amongst Indigenous people about selling manomin:
    1. Some believe that an exchange of manomin should be about a reciprocal relationship (i.e., gifting, trading) that does not involve money because it is considered a medicine and sacred gift;
    2. Some are involved with small-scale commercial harvesting to provide economic opportunities and to increase access to manomin, recognizing the recent increase in popularity of this highly nutritious food.

Key Messages

1. Most manomin habitat in Ontario has been destroyed
2. Many Indigenous communities are working to restore manomin in areas peripheral to the main water bodies that have been dammed
3. Any policy updates or proposals must align with protection and support of this rebuilding stage, and must work with Indigenous communities, respecting their long-standing Aboriginal and Treaty right to harvest manomin
4. The most important policy discussion concerns water-level control
5. Water management boards should work with Indigenous communities to determine how water management can incorporate the needs of manomin, as it does for fishing, navigation and other non-hydroelectric generating requirements.

Methodology

Two phases of knowledge synthesis were used in this project. The first was to capture the historic/prehistoric and published literature about manomin in Ontario through a review of archival materials, primary and secondary records, along with peer-reviewed literature. The second phase sought to engage with Indigenous communities working on restoring manomin in their traditional territories, in order to highlight their experiences and cultural approaches to manomin relationships. Discussions with our Indigenous partners were designed to learn from oral traditions and practices of Indigenous peoples that are not recorded in the research literature, and also to understand broadly what is happening around manomin today.

The selection criteria were focused on archaeological, (ethno)historical, ethnology, talking with Indigenous community members, and other researchers. Some sources about the scientific study of North American wild rice were consulted initially for our own learning perspectives but we focused on human-manomin relations in cultural contexts. Undergraduate students assisted in collecting literature. Due to much of the information being historical texts, we engaged a critical theory approach to analyze these documents. We had to assess when the writer lived, background, skill of writing, context, etc. to contextualize the information. For our community conversations we produced community profiles that cite many historical references to the manomin situation in the community and provide information from our partners on the experiences of the communities and the current restorations projects.

FULL REPORT

Background

Manomin (or manoomin) is an Anishinaabeg word meaning "good berry". In English, it is commonly known as "wild rice" (*Zizania* spp.). The English name is a misnomer, however, as it is neither wild nor rice. It is actually an annual aquatic grass, with *Zizania palustris* being the more common species in Canada and the taller version, Z. *aquatica,* extending farther south (Figure 1). The importance of manomin is demonstrated further in the Anishinaabemowen language with Manominikegisiss being the "rice-harvesting moon", which corresponds to August/September in the Gregorian calendar (Stickney 1896).

Limited information is known about where manomin grew during precontact times and also the antiquity of its use in Ontario and adjacent areas. Manomin was a staple carbohydrate food for people across most of what is now known as Ontario and with its range extended from the Atlantic through to parts of Alberta as well as the northern U.S.A. around the Great Lakes (Figure 1). The limited archaeological evidence suggests its use dates to at least 3000 years ago (Boyd et al. 2014; Hamilton et al. 2011; Rajnovich 1984; Taylor-Hollings 2017) but perhaps as far back as 6,000 years ago (Surette 2018).

Harvesting, processing, seeding, trading, and consuming manomin have long been an integral part of Indigenous food security, food sovereignty, culture and governance (Benton-Banai 1988; Yerxa 2014). European visitors and settlers consumed manomin both during travels for the fur trade in Northern Ontario and during the early years of land-clearing for settlement in southern Ontario (Canniff 1869; Harmon 1820). Yet, its use declined and then nearly stopped by the late 20th century due to damming of lakes and rivers for hydro-electricity generation and other colonial developments. Interest in the crop today has been increasing by both Indigenous and non-Indigenous people for nutritional, food system and sovereignty reasons (Hayden Taylor 2015, 2019, 2020; Kinew 1995; Mehltretter et al. 2020; Whetung 2020) and it propels a deeper investigation into understanding its historic loss and the restoration efforts in Ontario today.

This project counters cultural homogenization in both material and intellectual ways. Materially, it supports greater understanding of an Indigenous Central Canadian food that can lead to strengthening sustainable food systems. It helps counter the erosion of diversity in landscapes of food production (Barthel et al. 2013). Intellectually, the project explores the change in conceptualization of manomin by the settler population in the 19th century and its current restoration as part of Indigenous cultural resurgence in Canada (e.g., Kuzivanova and Davidson-Hunt 2017).

Much scientific research about manomin/wild rice exists (e.g., Counts and Lee 1991; Cusick 2020; Dore 1969) and continues to be conducted (e.g., Cheng 2023). While there is growing literature on social/cultural aspects of manomin (Carlson 2018; Mehltretter et al. 2020; Yerxa 2014), a knowledge synthesis is lacking regarding cultural historical information from Canada with Indigenous, archaeological, (ethno)historical, geographic and anthropological sources. As Canada's only native grain, an Indigenous cultural keystone plant, and one of the few horticultural products that can be grown on the Canadian Shield, manomin has the potential to contribute much more to Indigenous and other people's food security. Challenging 19th and 20th century colonial narratives of 'wild' rice provides an opportunity to celebrate manomin's place in antiquity, to

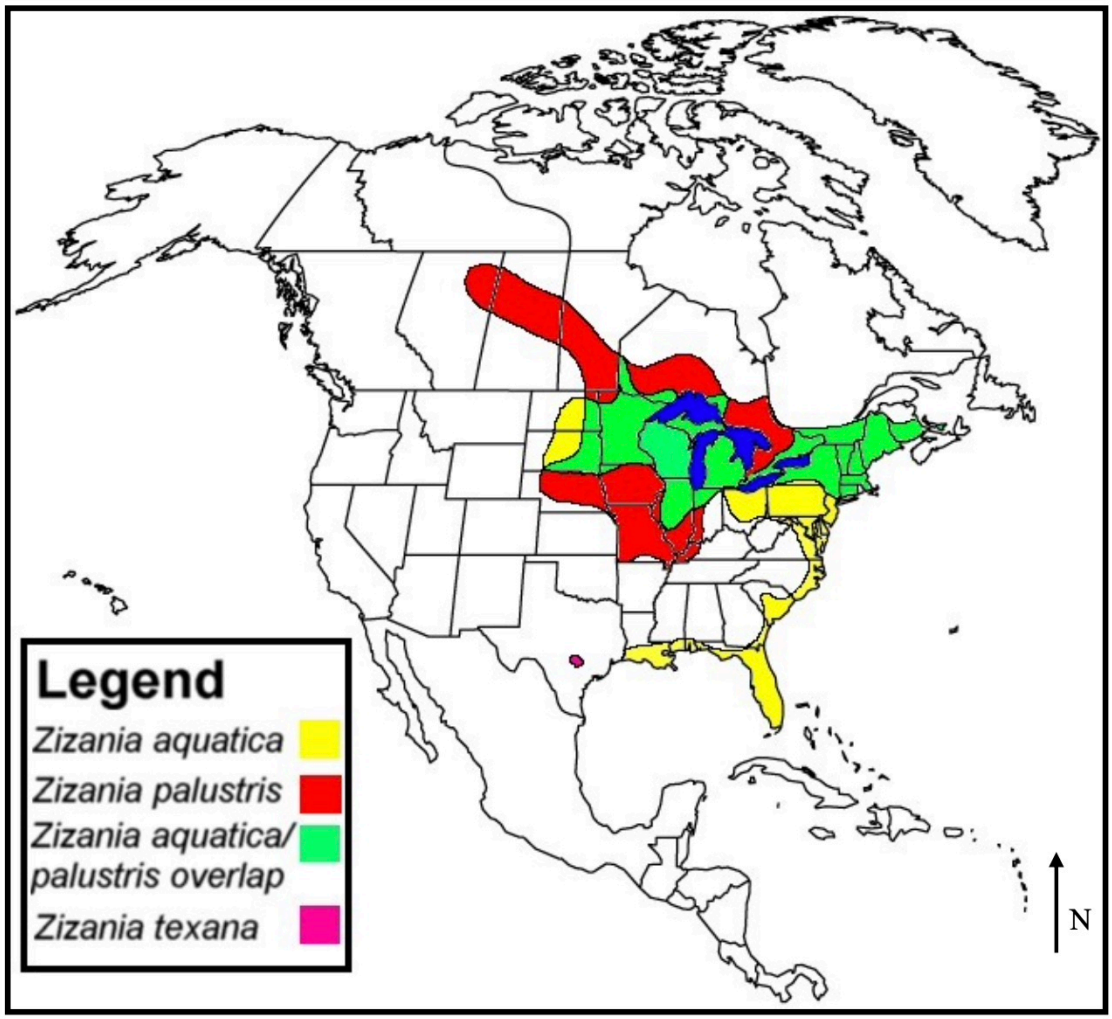

Figure 1. Modern distributions of manomin/manoomin (Zizania spp.) in Canada and the U.S.A. (after Archibold et al. 1985 and Barkworth 2007; modified by Surette 2008; taken from Surette 2018:28).

Observe a non-western cultural relationship with a plant and to support Indigenous communities' cultural resurgence and potential economic development today. The ancient and present use as well as understanding of manomin/wild rice as part of material culture is a salient case study through which to explore evolving narratives of culture and history, while also providing information relevant to Indigenous people possibly expanding production and consumption of manomin in the future.

Objectives

We sought to understand and challenge mainstream colonial narratives of wild rice and re-affirm the holistic, culturally embedded Indigenous concept of manomin (Stark 2013; Tuck and McKenzie 2015):

1. To conduct a knowledge synthesis of published information on manomin in particular in Ontario, focusing on the social/cultural and economic rather than biological aspects;
2. To develop case studies with two Indigenous communities to introduce non-recorded information on manomin and understand the present situation; and

3. To develop short films with the Indigenous partners to showcase their relationship with manomin.

Methods

Two phases of knowledge synthesis were used in this project, one was with written records and the other with Indigenous oral traditions and knowledge, in order to include Indigenous knowledge and research practices (Geniusz 2015; Wilson 2008). The first phase was a review of archival materials, primary documents and peer-reviewed literature to understand the archeology and history of the use of manomin in Ontario. The second, and parallel process was to engage with two Indigenous communities in different regions of the province who are working on manomin restoration. These engagements were designed to learn from oral traditions and practices of Indigenous peoples which are not recorded in the research literature, and also to understand broadly what is happening around manomin today.

i. Search Methods

We conducted a knowledge synthesis using historical and contemporary reports as well as academic publications. These had particular attention paid to how manomin was used according to the archaeological record, how it was used and viewed in the early historic period by Indigenous people/settlers and to the extent possible by Indigenous peoples themselves, the reasons behind the decline that started in the 19th century and the current resurgence of manomin harvesting and restoration.

The archaeological, ethnohistorical, ethnological and historical reviews were conducted by searching peer-reviewed, archival, and "grey" literature with the help of undergraduate research assistants. For archaeology, Taylor-Hollings also consulted data from the Ontario Ministry of Citizenship and Multiculturalism database for discussing recorded sites related to manomin and reviewed student theses.

Further review of primary historical records and publications such as diaries and 19th and 20th century texts provided much information on the location, uses and cultural framing of manomin by mainly settler writers. Some of the literature for the ethnohistory section came from secondary sources. Some historical text written by Indigenous people (e.g., Copway 1847) also provided information.

For the second phase of knowledge synthesis, we worked with our Indigenous partners to interview a few key people from each group to get an overview of their relationship with manomin and the history of their community's involvement with the plant. We also researched the historic record for first-hand accounts and information and spoke to government staff and other researchers to understand the history and policies around manomin in Ontario.

ii. Selection Criteria

We aimed to collect an extensive collection of historical references to manomin, using the primary sources, such as diaries and other accounts of 17th, 18th and 19th century life in what is now Ontario. Quotes that were most representational of the geographic area, of the time period or were telling of attitudes about manomin were selected for this report. Oral reports from our Indigenous partners were kept as complete as possible in our notes, but the community briefs were written in consultation with our partners and are meant to be general overviews.

iii. Data Collection

Oral Knowledge - In order to ensure Indigenous voices were foregrounded in this synthesis project, we reached out to contacts in two indigenous communities, Obishikokaang (Lac Seul First Nation) in Northwestern Ontario, and Alderville First Nation in Southeastern Ontario (Figure 2). These communities were selected based on the researchers having well established, on-going research relationships with community members. Also, there are geographic differences between the communities, being over 1800 km apart from each other, which provided a beginning for a broad overview of the diversity of manomin relationships and experiences in Ontario.

Obishikokaang had contacted Taylor-Hollings and Dowsley to see if we wanted to work on a manomin project in 2023; Loukes reached out to Jeff Beaver of Alderville First Nation. The next step was developing an application for the SSHRC Knowledge Synthesis grant together. After finding out that our application was successful, we worked with community members to do brief field trips to build a knowledge synthesis around manomin in Ontario with the help of Indigenous partners.

We also spoke to other people involved in working with manomin since the 1970s, including scientists (Lakehead University, University of Manitoba), Indigenous harvesters, commercial harvesters and Ontario Ministry of Natural Resources staff in order to understand the state of manomin use and governance today. These have helped us to understand the more recent history, the barriers and opportunities in the manomin sphere today.

iv. Analysis

Due to much of the information being historical texts, we engaged a critical theory approach to analyze these documents. We when the writer lived, background, skill of writing, context, etc. to contextualize their information and gain an understanding of how settlers experienced manomin. Additionally, the authors were able to discuss manomin-human relationships with the Indigenous community members of Lac Seul and Alderville First Nations, which provided a much broader scope for the project outcomes by revealing the common histories of loss and now of restoration of manomin that has played out in these two communities but is also ongoing in many other Indigenous communities across Ontario.

Results

Through the latter part of the precontact (archaeological) period and first centuries of the contact/historic period, manomin was valued culturally by Indigenous peoples and as a key food by both them and later settler communities (Harmon 1820; Holzkamm and Waisberg 1993). The Anishinaabemowin name manomin (meaning good berry) embodies these values. During the course of creating the knowledge synthesis, we also learned that many more Indigenous communities were interested in reclaiming this relationship with manomin.

Archaeology and Manomin - Precontact Period

Taylor-Hollings, J.

For centuries, researchers working in the Great Lakes area have been trying to understand the geographical extent and antiquity of manomin usage during the Precontact period, both from scientific and cultural viewpoints. A brief knowledge synthesis overview of these two key research areas in archaeology related to manomin follows, as it pertains to Northwestern Ontario particularly.

Figure 2. Google Earth map showing the two communities involved in this project - Lac Seul and Alderville First Nations - in the context of Ontario.

Geographic Extent

Although not common in **any** of these occurrences, evidence of manomin usage at archaeological sites may include: 1) the finding of actual preserved wild rice grains (Birk 1977); 2) impressions on Precontact pottery (Birk 1977); 3) phytoliths in carbonized residues (food remains) from pottery, sediment and soil (Boyd and Surette 2008; Boyd et al. 2013); 4) features in the ground (e.g., clay lined parching pits in Johnson 1978); and 5) locations near a modern manomin stand (and/or campsite) used as an analogy that earlier occupations may have also been associated with wild rice (Rajnovich 1984). Additionally, there is almost certainly an association with some pictograph locations that occur across a large area of the central Canadian boreal forest where manomin also grows (e.g., Rajnovich 1994). These were sacred locations and people typically camped nearby and often these were at gathering locations where wild rice and fish spawns occurred (e.g., Taylor-Hollings 2017).

Archaeological sites are typically found in certain types of locations in the cultural landscape of the boreal forest of Northwestern Ontario (e.g., points of land, beaches, high flat locations, near quarries, etc.), so that predictive modelling can be used and then ground truthing can be done if necessary. Essentially, there are two kinds of archaeological and more recent sites related to the harvesting of manomin – seasonal gathering locations and temporary processing spots that would have been located near wild rice stands in the past (and sometimes are still used in modern times).

Morgan (1960:25) explains the cultural continuity that is evident (although in the language of the mid 20th century):

> Today some Ojibwa Indians gather along the shore where wild ducks flare out of the waving rice that stand tall in September days. Wild ricing is a significant event to them and they go about it with methods hardly changed from those of their ancestors. Aluminum canoes may have replaced birch-barks, and iron kettles have taken the place of pottery, but wild rice time otherwise remains very much the same. Not only do they prefer hand-processed rice, but they enjoy the art that prepares good rice, an art that gives the satisfaction it has always given the Ojibwa to work with hands and heart to be sure of a job well done.

Archaeologists typically infer that residents from a particular archaeological site, which is located near modern wild rice stands, would have used this subsistence economy (Cooper and Johnson 1964; Rajnovich 1984). Although this assumption is possible, the site may have been occupied during a season when manomin was not available. Also, modern stands may not be located in the same place as those that grew thousands of years ago.

Manomin will only grow in specific environmental locations and conditions, thus allowing the possibility of modern presence to be used as a proxy for predictive modelling of archaeological sites in Ontario. Rajnovich (1984) outlined the factors that are needed for wild rice to grow which include location in a channel or open bay (usually), fairly vigorous water movement, open sunlight, sediments suitable for rooting, and a low water level. Dore (1969) suggested that soft, silty water bottoms, where there is no competition with other plants, is ideal. Erosion and deposition are necessary, as is a period of freezing or near freezing (Chapman 1989). Aiken et al. (1988) noted that stands are usually located in shallow water along the shores of rivers or streams. Water depth is apparently the most important factor that determines the location and size of stands (Rajnovich 1984; Thomas and Stewart 1969). Fluctuations in water levels, particularly when too high, often result in lower or even nonexistent production (Rajnovich 1984). Certain fish, birds, muskrats, and diseases can also kill *Zizania* sp. (M.C.H.C. 1989). Despite these adversities, manomin was a fairly reliable food source, although the amount could vary from year to year and prospered with care from humans, whenever that was first ascertained by Indigenous people in the past.

There is limited information about Precontact period manomin and usage in Ontario for several reasons. Actual grains of manomin do not preserve well in the ground and particularly in the boreal forest, where acidic soils caused by a build-up of coniferous needles, will hasten the breakdown of organics (Taylor-Hollings 2017). Another reason for this knowledge gap is that archaeological science techniques did not exist until recently, for example to detect phytoliths (tiny silica bodies) in carbonized residues, that can preserve on precontact pottery vessels, in sediments and soil matrix from archaeological sites (e.g., Boyd et al. 2014). Although pollen from wild rice has been investigated, it is very difficult to distinguish from other native grasses (Lee et al. 2004), which makes it a less reliable indicator than phytoliths.

A major improvement in understanding ccthe extent of manomin used in the Precontact period is derived relatively recently from Boyd, C. Surette, and colleagues working on new methods for finding and studying carbonized residue on pottery, grinding stones, arrowheads and other ancient belongings (artifacts). Only certain ancient belongings will have residues, since often the preservation conditions do not allow it to remain with the item. For example, taphonomic (burial contexts) disturbances may affect that piece within the sediment after it is left behind by someone at a campsite. Animals, water, fire, chemical (acidic) weathering, and people tramping on the item may all cause it to be broken or altered. So, there are limited choices available for analysis after obtaining approval to study the item. Boyd and Surette (2010) had to learn how to carefully scrape off residues and apply the chemical techniques to isolate the phytoliths, so that they could be mounted on a slide and viewed with a microscope (Surette 2008). A comparative collection for boreal forest plants was also amassed and then the work began on various samples using previously proven methods (Surette 2008). Many Lakehead University graduate students have studied manomin in different archaeological science projects thereafter, adding to the contextualizing of Northwestern Ontario sites (e.g., Barry 2017; Cousineau 2021; Birch 2023; Burchill 2014; Surette 2008; Surette 2018).

Antiquity

There has been much discussion about the first examples of manomin, as evident in lake cores, and also when was it first tended by people in Ontario. The antiquity or occurrences of manomin can be thousands of years old in palaeobotanical sampling but that is typically much earlier than examples found in archaeological contexts. Instead, some findings were probably the result of climate-driven lake-level rise and the gradual establishment by the end of the middle Holocene of wild rice habitat (Boyd et al. 2013). The information available, at present, the oldest example of plant microfossil (phytolith) evidence indicates that wild rice had moved into the Whitefish Lake basin near Thunder Bay at 5,300 (6,100 cal) (Boyd et al. 2013). Although circumstantial evidence exists for people harvesting it during the Middle period (ca. 7,000 – 2500 years before present [BP]), more evidence exists for wild rice being harvested extensively during the Middle and Late Woodland periods (ca. 2500 – 100 BP) in Ontario. Usage in the Rice Lake area of Southeastern Ontario (see Alderville community study) likely started about 3500 years ago (Alderville Black Oak Savanna 2024).

The Middle period Laurel configuration is represented by large conical pots (Laurel ware), medium-sized, side-notched arrow projectile points, some ground/pecked stone tools, and occasionally native copper implements found in widely dispersed sites across the Canadian Shield (Taylor-Hollings 2017). Lithic materials are not particularly diagnostic since they resemble those in later Blackduck complex assemblages; however, the non-pottery parts of Laurel assemblages remain under investigated. Middle Woodland period Laurel configuration archaeological sites in Minnesota sometimes have wild rice processing areas and *Zizania* macrofossils (Valppu 2000). Rajnovich (1984) mapped out the proximity of Middle and Late Woodland sites to extant wild rice stands to find that there were correlations in Lake of the Woods. At Whitefish Lake near Thunder Bay, *Zizania* phytoliths were identified from carbonized food residue preserved on Laurel and Late Woodland pottery at the McCluskey, Martin-Bird, and MacGillivray sites (Boyd and Surette 2010). Boyd et al. (2013) argue that Woodland peoples could not have been responsible for the introduction of wild

rice into that area, due to the paucity of earlier sites discovered (thus far) in the region, which lends little support for anthropogenic dispersal.

Boyd and Surette (2010) identified wild rice phytoliths (and sometimes maize) from carbonized residues on Middle Woodland period Laurel ware, plus Late Woodland Blackduck, Winnipeg Fabric-impressed (Selkirk), and Sandy Lake wares from different sites in Northwestern Ontario. Additionally, if enough residue is present, radiocarbon dating is possible, which can then supply a specific date for when wild rice was cooked inside a particular pot (Boyd and Surette 2010).

Likely wild rice was harvested extensively during the Late Woodland period by Blackduck composite groups in Ontario (Taylor-Hollings 2017). For example, the people who manufactured Sandy Lake ware utilized this plant intensively, likely along with contemporary southern Selkirk composite Indigenous populations in the boreal forest (Rajnovich 1984). By the time of European contact, almost all nations near the Great Lakes were using wild rice where it was available such as the Ojibwe, Chippewa, Dakota, Sauk, Fox, Miami, Winnebago, and Menomini (Quimby 1960).

Sandy Lake Ware/Psinomani

One particular Late Woodland archaeological culture found in Northwestern Ontario has long been associated with wild rice harvesting sites since being defined by Cooper and Johnson (1964) for Minnesota and Wisconsin sites. Birk (1977) proposed that Sandy Lake ware was part of a more inclusive Wanikan culture using that Anishinaabemowen word meaning 'hole in the ground' or rice threshing pit. Subsequently, Participants (1987) decided that the makers of SLW were probably Assiniboine/Siouan speakers because the regions where they are found were occupied later by historic groups of this cultural affiliation; Birk and Johnson (1992) outline the Bradbury phase sites as direct associations of Dakota material culture and Sandy Lake ware. Thus, Gibbon (1994: 145-6) proposed the term Psinomani (pronounced "see-no-mon-nee") culture (900 – 200 BP), which is a Dakota (Siouan) word meaning 'wild rice gatherer' (Psin meaning wild rice).

> Birk (1977:31; emphasis author) described the set of identifying characteristics of the Wanikan/Psinomani culture: Sandy Lake ceramic wares; intrusive mound burials; exclusive circular conical mounds with shallow burial pits; primary flexed interments with associated mortuary vessels; small triangular projectile points (predominantly quartz?); **formally prepared ricing jigs or threshing pits;** fire hearths and pits; middens; **small, seasonally occupied sites in recognizable lakes area patterns; and the inferred use of wild rice as a staple food crop**.

Subsequently, Taylor-Hollings (1999) completed a study to identify the extent of Sandy Lake ware and Psinomani culture in Manitoba and Saskatchewan (note: Arthurs 1978 and Participants 1987 had outlined some examples in Northwestern Ontario earlier). This has more recently been refined to include more sites in Saskatchewan (Young 2006). If the premise of Sandy Lake ware being associated with wild rice harvesting, it points to a much larger extent of manomin usage during the Late Woodland period across central Canada and the northern U.S.A. Phytoliths of manomin have been found directly from Sandy Lake ware sherds from multiples locations (Boyd and Surette 2008).

Figure 3. Replica Sandy Lake ware pot at Lakehead University made by the late Grant Goltz. The characteristic bowl shape, vertically oriented textile impressions and interior lip decorations are all typical of this ware (photo courtesy of Clarence Surette).

It has long been known that manomin was harvested by Indigenous groups in Canada during the precontact period, due to longstanding information from ethnohistory, ethnology, and oral history. However, physical or circumstantial evidence of the belongings (artifacts) used had been more challenging to find. Densmore (1928:313-317) describes in great detail how manomin harvesting was done by the Chippewa in Ontario during the early 20th century, traditionally, and with their particular material culture such as poles for canoeing, boats, birch bark baskets, plant derived twine for tying the plants, cedar sticks for harvesting, etc. Unfortunately, all of those belongings are organic and do not typically survive in archaeological sites to provide material evidence of wild rice harvesting. There are a few examples of those items represented in museums, since anthropologists or others collected them in the past (e.g., F.W. Waugh collection of Lac Seul First Nation manomin harvesting items, Canadian Museum of History).

Conclusion

Manomin or wild rice was a staple carbohydrate food for most of what is now known as Ontario's history, with archaeological evidence illustrating its widespread use dating to about 3000 years ago (Taylor-Hollings 2017; Boyd et al. 2013) and perhaps earlier (Surette 2018). Avery and Pawlick (1979:33) describe how at Lake of the Woods, "It is a sacred plant, as central to the ancient Ojibway religion as bread and wine to Christians, but it is a staple, too, a food that can be stored for years (the ancients created dry, stone-lined caches hidden along the shores of their lakes and rivers) …". The ability to harvest and **store** manomin was so key to sustaining early populations in Ontario.

Although there is limited evidence from archaeological contexts about manomin and its usage, along with the belonging used for harvesting it in Ontario, new analytic techniques and updating of culture history have enabled better refinements of the age that manomin existed (paleobotanical contexts) and was used by Precontact Indigenous peoples. Additionally, great strides have been made in understanding specifically the people who made Sandy Lake ware (perhaps Siouan speakers?), an early culture tied to manomin harvesting, and dispersed from Minnesota and Wisconsin into Ontario and adjacent provinces (Taylor-Hollings 1999, 2017; Young 2006).

Ethnohistory - Postcontact Period

Dowsley, M.

Some Anishinaabeg in Central Canada and the Northern U.S.A. believe a traditional prophecy that their ancestors migrated to their present homelands in the last thousand years (Benton-Banai 2010; Jenks 1901). This prophecy directed the people to migrate from far eastern North America, through a specific route and stops to the Great Lakes Basin and to settle in the 'land where food grows on the water' (Benton-Banai 2010; Taylor-Hollings 2017). The relationship of Anishinaabe people to manomin around the Great Lakes is seen by some as the embodiment of that prophecy. (other Anishinaabe people do not follow this prophecy (Taylor-Hollings 2017)). Regardless of the physical origins of the Anishinaabeg, the presence of such a prophecy or story in the cultural lexicon illustrates a recognition of the importance of this plant, and longstanding cultural connection to it.

Manomin has been much more studied in the U.S.A., especially in Minnesota and Wisconsin compared to in Canada and Ontario specifically. Jenks (1901) and Vennum (1988) have provided exhaustive reviews of manomin in its range in the U.S.A. Jenks (1901:1117) in referring to maps of the 'Rice Country' on the American side of the Upper Great Lakes, notes that "No other plant which was used for food by the North American Indian during the period of Indian natural production has stamped its name upon so extensive a section of territory as has the wild-rice plant…more geographic names have been derived from wild rice than from any other natural vegetal product throughout the whole continent" (Jenks 1901 1117-1126). Many small lakes in Ontario similarly carry names derived from the presence of manomin, but Rice Lake near Peterborough is by far the largest and best known.

The plant was so important that Jenks (1901) recorded over 60 synonyms in English, French, and Indigenous languages. For example, the Menominee Tribe of Wisconsin was so named by the Anishinaabe, using their word for wild rice people, since they were so linked with this plant; (the Menominee actually refer to themselves as the Mamaceqtaw meaning "the people" (Milwaukee Public Museum 2024)). The French explorer Nicolet arriving in Green Bay in 1634 called them the Folles Avoines "the wild oats people" (Nicolet 2003[1634]). This testifies to the vital role of manomin in the history of the Great Lakes and upper Mississippi region of the U.S.A. and its use by differednt cultural groups.

Despite some incidental mention of its range in Canada by Jenks (1901) and Vennum (1988), no published comprehensive review of manomin for Canadian contexts exists either for historical or modern times. Yet manomin is increasingly present on grocery store shelves and is domesticated and grown on commercial farms in the U.S.A. Therefore, it is timely to review the historic

relationship between humans and manomin in its core central Canadian habitat and to challenge popular discourse about that limited geographic range and use.

Written Records of Manomin

One of the first written records about manomin, in what is now Ontario, is from the Jesuit Relation of 1662-1663 (Thwaites 1899 vol. 48). It was reported that in October of 1660, missionary Father René Menard and his eight companions arrived in the country of the Outaouax (Odawa/Ottawa) and passed a poor winter for lack of provisions. The next summer and fall they worked to provide themselves with better food, by imitating the Outaouax in fishing and smoking the catch. The paragraph following this information in the *Relation* describes the manomin harvest and processing but does not directly indicate if the French party harvested or consumed it (Thwaites 1899 vol. 48). However, given its position in the letter after explaining the dire lack of supplies and the subsequent discussion of fish as provisions, it seems likely that the missionaries also subsisted on manomin through their second winter. The *Relation* (Thwaites 1899 vol. 48:121-123) describes the manomin harvest as follows:

> There is in that country a certain plant, four feet or thereabout in height, which grows in marshy places. A little before it ears, the Savages[1] go in their Canoes and bind the stalks of these plants in clusters, which they separate from one another by as much space as is needed for the passage of a Canoe when they return to gather the grain. Harvest time having come, they guide their Canoes through the little alleys which they have opened across this grain-field, and bending down the clustered masses over their boats, strip them of their grain. As often as a Canoe is full, they go and empty it on the shore into a ditch dug at the water's edge. Then they tread the grain and stir it about long enough to free it entirely of hulls; after which they dry it, and finally put it into bark chests for keeping. This grain much resembles Oats, when it is raw; but, on being cooked in water, it swells more than any European grain.

The local subsistence economy apparently focused on fish and manomin, both of which were adopted by the missionaries in their second year. Many of the historic records illustrate this economy that is very focused on the aquatic ecosystem.

i. Rice Lake and Southern Ontario

Kahgegagahbowh (George Copway) was a 19th century Mississauga Ojibwa Christian writer from Rice Lake (see community profile about Alderville) and the first published Indigenous Canadian author who mentioned manomin:

> Rice Lake, that beautiful lake, extends about twenty-five miles, and is from two to three miles in breadth, running from northeast to southwest. It contains about twenty islands. Large quantities of wild rice abound in almost every part of the lake; it resembles fields of wheat. As ducks of all kinds resort here in great abundance, to feed upon the rice, consequently, there is much good game in the fall of the year. They fly in large flocks, and often appear like clouds... Rice Lake contains quantities of the finest fish. In the summer, great numbers of boats may be seen trowling for mascalounge, a species of pike, some of which weigh about thirty pounds. Bass, eels, etc., are also found in this lake (Copway 1847:65-66).

Traill (1906), a settler, later wrote about manomin in several accounts from around Rice Lake during the 19th century. She describes poetically about the locations of the plants in the environment: "Beyond this aquatic garden lie beds of Wild Rice (Zizania aquatica), with floating leaves of emerald green and waving grassy flowers of straw-colour and purple" (Parr Traill 1906:91).

There was concern amongst early settlers about the possibility of catching disease from wetlands in Southern Ontario. Langton (1926:5), a settler, mentions manomin at Rice Lake several times in his letters to his father. He wrote on August 2nd, 1833, Rice Lake "...as its name would denote, is a low, muddy, swampy, aguish looking place, covered over with Canadian rice and other aquatic weeds". But a few weeks later in his letter of Aug 23rd of that year, Langton (1926:5) wrote a slightly more positive description of Rice Lake: "You will admire it very much for the beauty of its banks and islands, though at this season of the year the wild rice beds give the lake itself more the appearance of a grass plot than a sheet of water, but I would not advise you to stay long admiring the scenery or you will probably catch the ague".

Later that fall in another letter to his father in England, Langton comes to value the manomin beds near his new farm. In describing the game about his new farm on Oct 31st, 1833, Langton (1926:35) describes "Ducks, in thousands and tens of thousands, frequent the rice beds at the mouth of the Scugog, about four or five miles from me". His interest in the local ecology leaned towards the sport of hunting ducks, rather than the food value of the manomin itself, but he clearly ascertained the ecology of the migratory waterfowl-wild rice connection in that birds feed heavily on the manomin during migration. They eat manomin and fertilize the lake bottom with their droppings but also disturb the grains while eating them and help to distribute the seed.

Much more recently, Heather Shpuniarsky and the Village of Hiawatha Book Committee (2016) interviewed members of Hiawatha First Nation on Rice Lake about the local area within the past century, and reported from one interview: "the lake was like a little river meandering down through what is now this lake. The rest was all rice beds... the whole thing". They estimate manomin covered as much as 5,000 acres of Rice Lake. Much of it was lost.

ii. Other Examples in Southern Ontario

Manomin was also found on the lower Great Lakes. Descriptions of it paint a very different picture of the 19th century lakes than what we see today. For example, Carver wrote "It is true I found great quantities of it in the watered lands near Detroit, between Lake Huron and Lake Erie" (Carver 1778:211). Another writer noted: "a chief article of food of the Mississaguas was the wild rice (monomin). From the abundance of this plant in its waters, Rice Lake has received its name. It was also plentiful along the western shores of Lake Ontario and the Bay of Quinté" (Chamberlain 1888: 155).

A 19th century historian, Canniff (1869:587-588), wrote a history of the region around the Bay of Quinte on Lake Ontario for the Historical Society of Upper Canada, writing: "In some parts of the Bay, [of Quinte] there grew wild rice, which was much prized by the Indians, and which was often used by the settlers. It is spoken of as an excellent article of diet, and when boiled with meat, very tasty as well. The grain is much smaller than the imported article; not infrequently, the Indians would collect the grain and sell it to the settlers".

As mentioned by Langton (1926) hunting waterfowl in the rice beds was a popular pursuit amongst settlers. This was not the only game attracted to the manomin, as deer congregated there too. “At Lake Erie it [wild rice] grows in water six to eight feet deep, and millions of reed birds, as well as bucks and other water fowl, resort there, and afford very fine shooting” (Anonymous 1881:323).

Kohl, a German geographer, described his travels around Lake Simcoe in the mid-19th century and notes that the French had early on picked up on the importance of Indigenous people gathering manomin:

> Here and there the rivers that flow towards Lake Simcoe have broken a passage through these woods, and either destroyed the trees or prevented their growth. These strips of land are mostly flat and marshy, covered merely with grass and herbs, and with the forest on each side. It was in one of these that I first saw the remarkable grass so often mentioned in the reports of the first French missionaries and discoverers of the Huron country, it is the one they called *folle avoine*, wild or *mad* oats. The English call it “wild rice,’’ and I was surprised to see it in such profusion here to the north of Lake Ontario. On the shores of the lake itself this plant was not, I was told, to be found. The coast of that lake's high and sharply cut, but on Lake Erie it is often low and marshy, and there the plant is found in abundance, and the more so the further you go to the West (Kohl 1861 Vol 2: 46-47).

Kohl (1861 Vol 2:48) continues his discussion: “They call the part of the water in which it is growing a ‘wild rice bed,' and on the Georgian Bay and on Lake Huron these wild rice beds are extraordinarily large, often extending for miles along the shore. Here also we perceived tolerably extensive tracts covered with it”. Kohl (1861Vol 2:50) goes on to illustrate how the settlers had adapted themselves to the presence of manomin in the landscape: “The handsome steamer “The Morning” which received us at Bell Ewart [a town on the southernmost bay of Lake Simcoe], had a good deal of the rough woodland character in her proportions and arrangements. She was small in order to be able to run easily into the little forest creeks, and glide over the rice beds”.

iii. Central Ontario

Manomin does not appear as frequently in the historic written records for Central Ontario. There is a small shallow lake called Menominee lake in Muskoka that flows into the Lake of Bays (McMullen 2013; MNR 2015). Thompson mapped the area in the summer of 1837 as part of his survey to find a route between Georgian Bay and the Ottawa River and was among the first Settlers to see this lake (McMullen 2013). Despite its rocky shoreline, the epithet ‘Menominee’ suggests that Thompson saw rice there or was told by local Indigenous people that this was the name. In Ontario, there is also a Menomonee station on Parry Sound (Jenks 1901:1117).

One reason that manomin is not often mentioned in the fur trade records in the central Ontario area may be the timing of movement and provisioning of the fur trade brigades between Montreal and Sault Ste Marie. Alexander Henry the Elder (1901) traveled that route and further west in the early 19th century and provided a detailed diary of his observations. He mentions seeing corn being grown on the islands in Lake Huron around Manitoulin, but does not report manomin until he exits Lake Superior and enters the waterways leading to Lake Winnipeg. Because he was not looking to trade for supplies and he was passing through central Ontario during early summer, it is entirely possible that there was no manomin to observe (or he did not recognize it), while the corn fields would have been visible. Henry (1901) does famously mention how if he had not stopped at the

Lake of the Woods and provisioned with wild rice, that he and his team would not likely have made it to the next step in their journey to Manitoba and Saskatchewan.

More recent information supports the view that central Ontario was historically productive in manomin. Jenness (1935), a famous Canadian anthropologist of the early 20th century, discussed the customs of the Parry Island community in Georgian Bay on Lake Huron (now Wasauksing First Nation). He noted that the community was about 250 people, of which 100 were Potawatomi who migrated from Michigan about 70 years before, around 1865. There are also some Ottawa people recorded and the rest identified as Ojibway. Jenness (1935:10) describes their economy as follows:

> In early times the Indians of Georgian bay, cultivated maize, according to some informants. Others denied it, asserting that they lived solely by fishing, hunting, and the gathering of wild fruits. This contradiction in their statements evidently reflects the mixed origin of the people, for we know from Champlain that the Ottawa who once occupied the region cultivated maize, and from other early authors that the Ojibwa farther west, some of whom emigrated to Georgian bay during historical times, grew no corn. Even those who did not practise agriculture, however, were better supplied with vegetable foods than the majority of Algonkian peoples in eastern Canada. Their country contained many groves of sugar maple, and wild rice grew abundantly in certain localities around the margins of the lakes, so that they were able to store away large quantities of sugar and rice for the lean months of early winter. Berries, too, were plentiful, particularly blueberries and cranberries; and there were acorns and other nuts.

Perhaps manomin was more sporadically grown on the Canadian Shield, given the lower frequency of its desired habitat of muddy-bottomed, slow-moving waters. But there were apparently areas where it flourished and people harvested it.

iv. Northern Ontario

One of the earliest non-Indigenous visitors to Northwestern Ontario was explorer and fur trader La Vérendrye who arriving in the 18th century (Burpee 1927). He wrote reports to the Governor General of New France of his progress in establishing trade relations with the Indigenous peoples west of Lake Superior. In a letter dated May 21st 1733, from his settlement of Fort Saint Charles on Lake of the Woods he explains: “the wild oats, which we have found in abundance have enabled us to save the corn, which we brought up last autumn, for seeding, so that we shall not have to buy any more in future at Michilimackinac, and thus be saved a great deal of expense” (Burpee 1927:94-97). Manomin was thus an important part of the subsistence system of the fur traders northwest of Lake Superior by this time. Tanner (1830) also describes the Indigenous people using and trading wild rice at Lake of the Woods a century later.

Long (1791) wrote between 1768 and 1791 on the various regions of Northwestern Ontario he thought might be of interest to investors in the fur trade. In describing his own overwintering at Lac La Mort (northeast of Lake Nipigon), Long (1791:58) recorded how he and his men suffered from want of supplies and was induced to travel by foot to visit “Lake Manontoye, where we knew Mr. Shaw, a brother trader, had wintered, to endeavour to procure some wild rice, which the Indians told me grew in the swamps at that place”. Shaw supplied them with manomin and dried meat and loaned Long (1791) an “Indian slay” and two Canadians to help him transport the supplies home to his post. Again, we see that manomin was a vital food source for the fur traders.

These historical accounts from across Ontario illustrate how widespread manomin was, and the key role it played in the food system of both the Indigenous population and the fur traders. The settlers too acquired manomin and consumed it during the 19th century, though this doesn't seem to have persisted in their diets as a regular food into the 20th century.

During the 19th century, mainstream Canadian views of landscapes shifted as industrialization and colonial attitudes towards Indigenous peoples increased. Manomin was clearly no longer perceived by colonial powers as a key food asset. By the late 20th century, the Euro-Canadian view of it as 'wild' (i.e. not in a relationship with humans) became the dominant narrative and this cultural prejudice is illustrated in the French and English names of 'folle avoine' (*fool's oats*) and wild rice (Carlson 2018). The designation of the plant as 'wild' also links it culturally to the European colonial notion of *terra nullius* or unowned land that can be taken up by settlers and prepared for agriculture or other uses, as opposed to land already producing food through human intervention, a relationship with an agential plant, and deliberate cultivation.

We argue that this intellectual shift in the minds of colonial elites (who had fought over access to manomin during the fur trade (Jenks 1901) resulted from the increased colonial reach that caused Indigenous worldviews, trade and other interactions to decrease in importance in the mainstream Canadian narrative during the 19th century. Rather than maintaining the lessons of at least the food value, if not the less tangible cultural and intellectual values, of manomin learned over two centuries of contact with Indigenous communities, Euro-Canadian settlers reverted to their cultural traditions of viewing the aquatic crop as unimportant or somehow not a 'proper' food because it did not grow in tilled fields under the constant toil of dedicated farmers.

More sinister interpretations of the suppression of Indigenous foods in order to control Indigenous people, rather than mere disregard for manomin, is a supplemental theory alive in Indigenous communities today that should be investigated further. The lack of value given to manomin in the 19th century supported plans for landscape conversion projects (including hydroelectric dams, inland water control and transportation systems) because these were not seen as destroying anything of value to the colonial enterprise. The resulting collapse of the manomin food system impoverished Indigenous communities culturally and materially and its effects are still felt today as many communities seek to reconnect with this plant.

TWO BRIEF COMMUNITY PROFILES

Introduction

By the late 20th century, there were just two main centres of manomin production frequently mentioned in the popular discourse in Ontario, the southeastern region in the Kawartha Lakes /Rice Lake area and the northwestern region in Treaty 3 Territory. These locations are in Anishinaabe Traditional Territories, they are active manomin growing regions, sites of wild rice restoration and also locales of continued habitat destruction. If given the opportunity (which many were not), Anishinaabe communities selected their reserve lands within these areas for food security and sovereignty reasons, one being to be close to manomin. Today, there are several First Nation reserves in each of these manomin homelands still harvesting and caring for the plants.

In the Kawartha Lakes recently, there are heated discussions about both the active seeding and destruction of manomin leading to an on-going culture clash, between the recreational landscape

favoured by non-Indigenous cottagers and the cultural/economic landscape of the local Mississauga Anishinaabeg communities (Hayden Taylor 2015, 2019, 2020; Kapyrka 2015; Paridy 2021). In northwestern Ontario, Anishinaabeg communities continue their struggles against dams and water projects that steal their drinking water, pollute their lakes and rivers and destroy manomin (Luby 2020 and Lac Seul study that follows). They are also active in defending manomin against non-Native commercialization at Lake of the Woods in Treaty 3 (Avery and Pawlick 1979; Kinew 1995). Though relatively well-known, these two manomin homelands represent a much-diminished though essential and valued manomin geography in Ontario. We worked with one Anishinaabe community in each of these regions to introduce their communities' relationship with manomin, and the history of the loss and resurgence of that relationship.

As part of the SSHRC Knowledge Synthesis grant project about human-manomin relations, we were able to do two short field trips with 1) Obishikokaang or Lac Seul First Nation (Dowsley and Taylor-Hollings) and 2) Alderville First Nation (Loukes and Beaver). The field trips are contextualized with historic and peer-reviewed reports and serve as a brief introduction to the history and current situation in each community.

1) Community Profile: Obishikokaang / Lac Seul First Nation

Dowsley, M.

Introduction

Dowsley and Taylor-Hollings have been working with Obishikokaang (Figure 2) for several years on community research projects. The community is part of Treaty #3 territories and a member of the Independent First Nations Alliance, along with four others in Northwestern Ontario. In 2023, the community invited the researchers to begin a manomin project with them, to understand the history of manomin in the community and consider options for improving the relationship.

History of Community Relationship with Manomin

One of the earliest mentions of Lac Seul and its relationship with manomin in the literature is the following quote from the annual report of Inspector J.V. Begin (Canada 1891, 15:108); it serves as a geographic introduction to the Lac Seul Anishinaabe community:

> We made three portages from half a mile to one mile long. We passed through a long marsh filled with wild rice, then came on the open waters to Lac Seul again, and passing round a point came in sight of the Hudson Bay Company's post at White Pine Narrows, on each side of which were the houses and gardens of the Indian population, who number about 500.

Obishikokaang (Lac Seul First Nation) and many other Indigenous nations in Northwestern Ontario have a long history of engagement with manomin (see Archaeology discussion). The 'natural' range of the plant is unknown, because it was often spread by Indigenous people to new areas. McColl (1888:11-12) explains the process:

> I may mention an instance which came under my observation of an experiment made by one of the councilors of the Lac-Seul Band in sowing a bushel of rice in a small shallow lake between Lac Seul and Vermillion lakes three years ago. The first year, a scattering of rice was to be seen growing in the Southern part of the lake, Last year the crop was thicker and more extensive, but he would not harvest it, as he was desirous of increasing the area of its growth. This year, he has upwards of one thousand acres of

> excellent rice, but he allowed it to ripen and drop into the lake a third time, in order that next year the whole lake will be under rice.

This passage also illustrates several common Anishinaabe principles of caring for manomin. It includes having the longstanding knowledge to understand how to care for it, knowing how to plant it and where, and thinking ahead for future years by propagating it.

From examining primary and secondary sources, and discussing with community members, we can conclude that manomin was growing, where conditions allowed, throughout much of the southern areas of Northwestern Ontario during the historic period and was recorded growing as far north as Red Lake, which is part of Lac Seul First Nation's Traditional Territory, by the late eighteenth century. Long (1791) wrote between 1768 and 1791 on the various regions of Northwestern Ontario he thought might be of interest to investors in the fur trade. He describes the situation of Red Lake, "Fish is caught here in great abundance, and wild rice grows in very great plenty in the swamps" (Long 1791:81). These details were meant to inspire prospective traders to come to the Red Lake area due to its abundance of provisions including manomin.

Harvesting

The method of harvesting manomin was more recently outlined by Lac Seul First Nation in their 1997 traditional knowledge study:

> It has been the customary practice of the Anishinaabe people to gather each fall for the harvest of manomin. Groups of individuals and families have worked cooperatively in the harvest of manomin in accordance with carefully regulated harvest practices. Harvested manomin has historically been processed for winter provisions or traded to provide a source of income. Additionally, it has been common for a portion of the manomin harvest to be carefully stored and experimentally planted in new locations in the period following the harvest. It was also common that efforts to propagate manomin into new locations were carried out concurrently with the commencement of the fall and winter hunting work in the seasonal cycle that has characterized the Anishinaabe land-based economy (Lac Seul First Nation 1997, Map 9/9).

Manomin has long been a part of life at Obishikokaang and undoubtedly factored into why there are so many large Woodland period archaeological sites all over Lac Seul's shores (e.g., Hamilton 1981). Harvesting, trading and propagating manomin in new locations was part of the seasonal round of activities from precontact times. It was the main carbohydrate food source, and its storability and transportability made it an invaluable part of the Anishinaabe lifestyle. The arrival of the settler-colonists opened another opportunity in the use of manomin – the prospect of trading it to them. Thus, its function in the Indigenous economic system increased as it could also be used to acquire European objects.

Treaty and Industrial Development

When Treaty #3 was negotiated at the Northwest Angle on Lake of the Woods, a set of notes was kept by the Indigenous community, now called the Paypom Treaty (Grand Council Treaty #3 2011). The Grand Council for Treaty #3 prepared a paper reviewing the treaty in 2011 (Grand Council Treaty #3 2011). Manomin was one of the items they specifically discussed. Their understanding of the Treaty involving manomin is as follows:

> The text of the Paypom Treaty reads: "The Indians will be free as by the past for their hunting and rice harvest." The Nolin Notes, submitted by Governor Morris as an appendix to his official report of 14 October 1873, contain identical text. Manomin has a central place in Anishinaabe spiritual life and economy. Treaty #3 as published by Canada offers protection to lands that were already under cultivation. Many manomin beds were deliberately planted by Anishinaabe. Traditional Anishinaabe peoples' management Maanchi chi' ga'win of manomin is inextricably interwoven with their use of forest resources. To be "free as by the past for their… rice harvest" involves: construction of housing near manomin beds; manufacture of canoes to gather and plant manomin; fabrication of containers and tools for harvesting, processing, and storing manomin; and collection of firewood (Grand Council Treaty #3 2011:39).

Many Indigenous communities wanted reserve lands that were close to key resources such as fishing ground and manomin beds; however, they were often not consulted in that process and given lesser areas (e.g., the Pikangikum First Nation reserve was set up on a highly clay rich location that causes great adversity in wet seasons). The Lac Seul First Nation reserve "was created under Treaty 3, which required Canada to select and set aside reserves that would be "the most convenient and advantageous for each band or bands of Indians". In 1875, the Lac Seul First Nation chose Lac Seul as the site of the Reserve because of the resources along the shorelines and the social, cultural, and spiritual importance of the area (Southwind v. Canada 2021:17).

A report from an Indian agent (Canada 1896:14:69) illustrates the land use around that time: "On going to this reserve [Lac Seul] we made a detour from the usual route so as to see the hay and wild rice crop on Canoe River. From present appearances a good harvest should be gathered. A number of these Indians have their gardens on islands in Lac Seul". This type of wide-spread land use was typical and another example is given of the regional economy of several bands in the area in 1916 (Canada 1917 27:9).

> The following are the chief occupations of these Indians: working for the Hudson's Bay Company as canoemen and freighters, in lumber camps, on railroads, hunting, fishing, and as guides to tourists, attending to their gardens and potato patches, berry and wild rice picking. Any of the Indians who have cattle take fairly good care of them; there are only a few who have any stock.

The Anishinaabe used their whole territory to harvest, grow and hunt their food. They did not restrict themselves to small privately-owned farms as the newcomers did. Their land use looked quite different, with seasonal movements of people to different locations often many dozens of kilometers distant. Lac Seul members share a very large traditional territory to this day that crosses many town, city and municipal boundaries also.

Within 14 years of signing Treaty 3, Canada began to construct dams, 18 in all, throughout the Treaty 3 area. These dams were to supply water and electricity for mills, towns, mines and the City of Winnipeg. No major lakes or rivers in the area retain their natural water levels (Usher 2003). At Lac Seul, the effect was compounded by the diversion of the upper Albany River to augment water storage and flow in the English-Winnipeg River system. The water levels on Lac Seul rose by about 10 feet or three meters and flooded about 17% of reserve lands and many acres of Anishinaabe traditional territory off-reserve (Southwind 2021). Besides the loss of dry land, the flooding caused the loss of the shallow water and shoreline environment, the very habitats that were most

productive biologically and featured prominently in the Indigenous economy. Manomin, with its shallow-water requirements was destroyed.

At Lac Seul, over 2000 acres of manomin had been recorded by Government Agents before the major flooding (Larcombe 2013). It is not known if this was an exhaustive estimate of all the manomin beds used by Lac Seul First Nation or only a partial estimate, but given the excerpt from McColl (1888) above, we can assume the beds were more extensive than a few thousand acres. Most were ruined by the flooding of Lac Seul in 1934. The destruction was noted by some government officials, but apparently did not draw the attention and action of those at higher levels. For example, one official explained: "I consider that these Indians have been very shabbily treated. Their Reserve lands, timber, houses, gardens, rice beds, musk-rat swamps have been flooded now for some years, and we still procrastinate. If it had been a white settlement, no person would have dared to flood the property, without paying compensation before flooding took place" (H. J. Bury, Supervisor of Indian Timber Lands) (Larcombe 2013:10). Since manomin is so interconnected with other relations such as moose, muskrats, beaver, and waterfowl, the loss of it meant losses of other food sources occurred for Lac Seul people at the same time.

After Lac Seul and the lake was flooded, some families continued the tradition of moving rice seeds to propagate it in new areas, with a new sense of urgency. These families included the Angeconebs and Trouts who spread the seeds outside the Lac Seul basin up until the 1970s (Chapeskie et al. 1994; personal communication Raymond Angeconeb, 2024). They brought seeds with them on their travel routes to their winter homes and planted the seeds in various waterbodies that seemed suitable for manomin. The manomin did not do well in most of these locations, providing only occasional harvests (Lac Seul First Nation 1997). The Albert Quedent family continued to propagate manomin in new lakes on their traditional territory, more inland from Lac Seul (the lake), in the decades following the flooding (Chapeskie et al. 1994). The family planted up to several hundred kilograms of rice per year and had some success in propagation.

In 1960, Ontario passed the Wild Rice Act that licensed rice beds to either local Indigenous communities, or if not used by them, to non-native harvesters. In the early 1970s, licensing reached the Lac Seul area and some of the areas planted by the Quedents were licensed to non-Indigenous harvesters. The reason given for that was the government did not view it as an area traditionally or historically harvested by Lac Seul members. The irony of having to move the manomin due to the flooding, only to have it taken again, is not lost on the community. It is now recognized that manomin harvesting is in fact a Treaty (3) right but Indigenous people are still required to obtain a license to harvest manomin on Crown lands or risk a fine (Ontario Government 1990).

Current Projects/Relationship with Manomin

Lac Seul First Nation's population is now about 4000 people. In 2021, the Supreme Court of Canada ruled in their favour that Canada broke its fiduciary duty by allowing the construction of a hydroelectric dam and flooding their territory (Woodside 2024). To counter some of the wrongs committed against the community and manomin, in 2023, Lac Seul First Nation declared their intention to begin more intensively caring for, harvesting and propagating manomin at some of the smaller lakes that drain into Lac Seul. Their first goal was to construct a harvesting and hunting camp to promote cultural learning for community members and provide a place for people to engage with manomin and the ecosystem of which it is part. The community worked with Dowsley and Taylor-Hollings to develop a historical summary, apply for grant money and begin to forge

relationships with other Indigenous communities who are harvesting or are also investigating how to renew their relationship with manomin.

The community settled their flood claim with Canada in 2024. This court case has been on-going for over 30 years. It is now legally recognized that the federal government allowed the flooding of 11,304 acres of reserve lands without Lac Seul First Nation's consent, authorization or the payment of compensation (Woodside 2024).

In 2024, Dowsley and students visited Lac Seul First Nation during the construction of their harvesting camp and made a documentary about their relationship with manomin as an output of this study (Dowsley et al. 2024). As the construction of the cultural camp continues, it is planned that more documentaries can be made and the experiences of the Lac Seul First Nation people recorded as they renew their relationship with manomin.

2) Brief Community Profile: Alderville Community Revitalization and Care

Beaver, J., and Loukes, K.

Introduction

I was interested in highlighting the relationship of Alderville First Nation (Figure 2) with manoomin (as it is spelled there), as it is a community in Southern Ontario in which my father is a member. My father is designated a 6(2) Status Indian, and as per the Indian Act, is not allowed to pass status onto my siblings or me. I have known my grandfather was Ojibwe from Alderville First Nation on Rice Lake since I was a young, and have driven through the community and seen Rice Lake when visiting my Uncle John. I was always confused as to why it was called Rice Lake when I did not see any rice there. Over the last few years, I have been learning more as I continued to visit and work with Jeff Beaver, who has been caretaking manoomin in the region since 1989 (Pierce 2019). Since 2020, I have been returning to Alderville for the fall harvest and have been able to be involved with harvesting and processing manoomin from Rice Lake. Along the way, I have learned so much from Jeff Beaver but I still have much more to learn. This brief community profile largely relies on the experiences and expertise of Jeff Beaver of Alderville First Nation, who has been caretaking manoomin since 1989.

Methodology and Methods

Indigenous methodologies emphasize relationality as the most important part of the research, including its paramount importance over productivity or research outcomes (Kovach 2005, 2009; Wilson 2008). Indigenous and decolonial methodologies resist and interrupt the extractive and exploitative tendencies found in Western methodologies and approaches, with little benefit to community (Smith 1999). The methods of the research followed this methodology and relied predominantly on causal conversations that meandered through manoomin beds, about our lives, stories, opinions, and questions. I also conducted three semi-structured interviews, two with Jeff and one with a local archaeologist, which will be part of a longer more in-depth paper that will be completed in the future.

Given the timelines and resources available for the Alderville component of this SSHRC Knowledge Synthesis one year grant, we were unable to complete the fieldwork necessary to create a robust case study. Additional logistical challenges included the timing of the manoomin harvesting season conflicting with the university's fall term and the geographical distance between the myself and Alderville First Nation. Given these realities, it is important that this small section be seen as a

brief introduction to Alderville's work as an example of community revitalization and care, and not a case study.

Community Profile

Alderville First Nation resides on the South side of Rice Lake, about 30 km north of Coburg and 120 km east of Toronto, in the Alnwick Township. There are roughly 300 members in Alderville, with 650+ members living outside of the community (AFN 2024). Rice Lake is named for the manoomin that once grew in large beds adding up to thousands of acres in a widening of the lake bed created during the ice age. Later, Rice Lake was flooded by the construction of the Trent Severn waterway. Although manoomin is not wild, nor rice (Luby 2018), it's similar appearance to the grain led Europeans to call it "wild rice". Rice Lak's shore is now surrounded by cottages, except the area that belongs to Hiawatha First Nation and the short shoreline and island (Sugar Island) that belong to Alderville. It is important to note that while my focus here is on Alderville, many communities have a connection to harvesting at Rice Lake.

Historical Relationship with Manoomin

Brief History of Alderville First Nation

In 1825-6, missionaries William Case and Peter Jones introduced the Methodist gospel to Mississauga Anishinaabe on Grape Island in the Bay of Quinte, which was an area of significance to the Anishinaabe, being a traditional fishery (Beaver 1999; Simpson 2024). Missionaries discouraged the fishing economy and started to favour and encourage agricultural practices alongside attempts to convert and "settle" the people there. It was such a small parcel of space for agriculture – merely six acres total. The cattle had to be kept on a different island and paddled to by canoe twice a day in order to be milked (Beaver 1999). Eventually the community outgrow Grape Island, and considering that much of the good agricultural land on the mainland was already occupied by settlers, the missionaries worked on pursuing a land grant to move the mission to Alnwick township (Beaver 1999). In 1836, people were moved from Grape Island Mission to Alderville, named so after Rev. Rover Alder from Grape Island (Simpson 2024).

Between the years of 1826-1867, missionaries enforced their own culture and dismissed Anishinaabe traditional values, which continued after confederation with Canada (Beaver, 1999). As in many communities experiencing conversion and settler-colonial assimilation, they were encouraged to become farmers and tradespeople, as hunting, fishing and gathering were not seen as valuable economic endeavors that sustained the community. Simpson (2024) states that "the hunting, fishing, and gathering activities were to be discouraged as this would keep their charges from the serious work of social dependence and servitude to the larger Canadian society". This neglect of and devaluation of Indigenous foodways extended into the school system (Alderville had the first Indian Day School). Despite this devaluation, many families continued to practice their traditional harvesting practices, from hunting deer, trapping, and collecting, dancing, parching, and winnowing manoomin. Simpson (2024) states that manoomin "was a staple and well enjoyed treat". Yet, the development of the Trent-Severn Waterway, a river valley long used as a transportation route teeming with wildlife, drastically changed the presence of manoomin in the region (Figure 4).

Brief History of Trent-Severn Waterway

The region started to become settled by Europeans in the 1700s and this growing population pressured the development of the Trent-Severn Waterway to serve as a transportation route (Parks Canada 2000). It was originally conceptualized as a military endeavor initiated during the war of

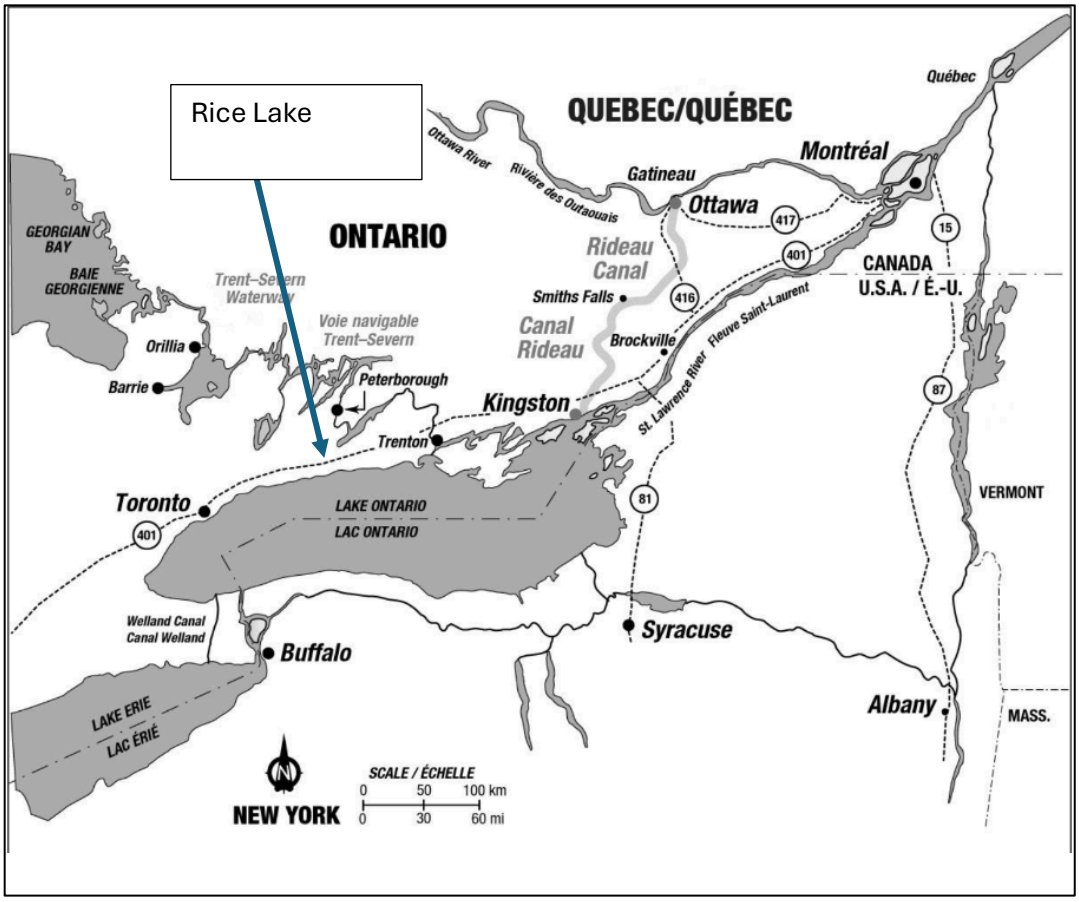

Figure 4: Trent Severn Waterway pathway (from Lake Ontario to Georgian Bay) with Rice Lake highlighted (from Parks Canada 2022:2).

1812 to hide supplies that would otherwise be exposed to Americans if transported along Lake Ontario. However, it's construction continued after the war as an economic driver for lumber and hydro power. Today, its role is largely as a site for municipal water, hydro-electric power, flood management and water control, and as a tourist destination (Parks Canada 2000). The Trent-Severn Waterway is a 386 km long water route linking Lake Ontario at Trenton with Lake Huron at Port Severn, destroyed the manoomin on Rice Lake (see Figure 4). It includes 44 locks, 75 control dams, 15 swing bridges, and two marine railways (Legget 2015). The work for building the lock spanned from 1833 – 1920. It cost millions of dollars to put in and finished in 1920 when the first boats were allowed to go up and down across Rice Lake and up on the rivers. This coincided with the time that the William's Treaty was signed, in 1923. By 1940, all the rice was gone. This fact is not mentioned on Parks Canada's websites or management plans on the region, and the waterway is still very much celebrated as a proud development in Canada's heritage.

The flooding of Rice Lake initiated a period of extreme food scarcity and absence for the Michi Saagig Anishinaabe in the region. The William's Treaty (1923) further strangled Alderville's (and other signatories') ability to survive off the land as they always have, by restricting hunting rights to on-reserve and requiring Indigenous hunters to follow game seasons. Many still did go out hunting beyond the reserve, but they would have to hide, someone would have to keep watch, and hunters would have to rush home to begin processing very quickly in the hopes that no one would catch

them. Fishing was the same, and many people drowned on Rice Lake trying to catch fish during conditions that were dangerous (i.e., rough waters or dangerous ice) to feed their families.

Jeff Beaver has seen many changes in manoomin harvesting practices in his own life time (personal communication, 2024). He remembers going out to harvest frequently, especially before he had a full-time job and was working seasonally. He credits the Elders he grew up with, who were the caretakers of manoomin before him, for all of his knowledge. He says that long before the flooding, there used to be enough manoomin on Rice Lake that people from Alderville, Hiawatha, Curve Lake, Ardoch, and Rama could come down and take part in the harvest. People could stay overnight and rice for 10-12 days. A family could bring home 500 pounds of rice, which would last them throughout the year eating rice almost every day. Manoomin also supported all the other animals. Jeff cites records of 7000-10,000 muskrat trapped in the years before Rice Lake was flooded. He recalls stories of beaver being trapped there too (Jeff Beaver, personal communication, 2024). Muskie and Pike spawn when the old plants go down in the fall and in the spring they lay their eggs on those old submerged plants. Their eggs hatch in there and the little fry can hide from predators amongst all the rice plants. So much of the ecosystem and food system rely on manoomin to thrive.

While flooding was the main culprit of the loss of rice, carp was another major impact. It was introduced in the region as there was a belief that the Europeans who settled in the area would be used to catching them and would be happy to eat them. However, the settlers much preferred the local fish. The carp population grew, which was detrimental to manoomin as they would root out the germinating rice plants in June.

The connection between the Anishinaabeg and manoomin's well-being is very deep. When the Trent-Severn Waterway came in, followed by multiple other compounding impacts, so much was lost. Not only manoomin - relationships and community including muskrat, beaver, and fish. The importance of the connections between manoomin, ecosystems, and community is what has inspired harvesters such as Jeff to spend years revitalizing that relationship.

Revitalization Efforts in Alderville

Jeff's interest in reseeding manoomin began in 1989. When there was no manoomin left on Rice Lake, he and his Elders would frequent Ardoch Lake to harvest. Eventually, the rice there was dwindling, and so he and his harvesting friends started to look for it in other beds in the region (Jeff Beaver, personal communication 2024).

An education video created in the 1990s showcases Jeff Beaver (1994) and other community members working to support the resurgence of manoomin in the region. As the film states in the opening, at that time, there was no rice on Rice Lake, which is what I remember as a child as well. At that time, Lakehead University researchers had been working with Alderville and verified that the lake bottom could indeed support manoomin once again. Each year, Jeff and other harvesters from Alderville would bring a little bit of manoomin from Ardoch Lake to reseed, as Ardoch was originally seeded with Rice Lake manoomin generations before. In the film, Jeff indicates that every year, three or four harvesters would get together to gather green rice and test it out at specific locations on Rice Lake, with the ultimate goal of bringing manoomin back to the lake to support people and wildlife along with the entire ecosystem.

Unlike some other regions in the area, Jeff has not faced any challenges expanding rice beds on Rice Lake, which he attributes to the area he chose to replant. However, this is not the case with other lakes in the region in which harvesters have experienced much conflict and racism in their attempts to support manoomin's resurgence. For example, James Whetung of Curve Lake First Nation has experienced much resistance from cottagers on Pigeon Lake, a conflict which has been depicted in a documentary and play called "Cottagers and Indians" (Hayden Taylor 2015, 2019, 2020). Pigeon Lake is a very important manoomin bed, supporting over 700 acres of manoomin (Beaver, 2024). Many cottagers in the region have long been upset about this, going as far as creating an organization and website (Save Pigeon Lake 2024). The website and activities of this group demonstrate the gross ignorance, lack of education, and misunderstanding of the geo-political, ecological, and cultural reality of the lake upon whose shores they have settled. Frustrated by the way that manoomin prevented them from driving their motorboats on the lake, cottagers called Parks Canada (who has been managing the Trent-Severn Waterway since 1972) and were granted a permit to remove the manoomin. Jeff happened to be there the day two big combines on floats were booked to destroy the rice. He recalls that those machines were working all day. Jeff and his harvesting friends called some council members and lawyers, and later that day, the federal government cancelled that permit. The machines were pulled out that night and never went back. Again, we see the lack of education the cottagers have about the plant. Jeff had to inform them that in cutting that rice, they replanted those seeds and guaranteed over 50 years regrowth at the bottom of the lake.

Current Relationship with Manoomin

Jeff's role of caring for manoomin in the region is widely recognized. Now, if people want to clear rice, they call him. He said that he usually allows it, if it is just to get their boats in and out of their docks. Alderville hires Jeff to monitor where the rice beds are and let the community know three or four places where manoomin is good to harvest. He works closely with the Alderville Black Oak Savannah (2024), a conservation organization run by Alderville, who help him to monitor the expansion of manoomin in the region with GPS and GIS systems. Jeff started to notice manoomin growing back on Rice Lake in 2012, which started with about 10 acres. In the last 12 years, it has grown to 25 acres. While it is not necessarily fast growth, it is steady. Jeff encourages other communities not to give up when the growth is slow – manoomin comes back.

Jeff attributes some of this success to the placement of the manoomin. He advises other Anishinaabe harvesters interested in revitalizing manoomin to keep it away from cottages and camps to avoid the risk of people pulling it up. He states that if manoomin experiences three to four impacts, it is unlikely to work. Of all the forces, people cause the most harmful interferences that lead to a cascade of other impacts. For example, people will cut manoomin down for boat access which opens up pathways for geese. When the manoomin beds are thick, geese avoid going in deep because they cannot see the predators. When the boats come in and cut a large area, they are able to see further and feel safer going deeper into the beds, where they clip the stalks off. He uses Little Bald Lake (another lake in the region) as an example, in which big channels were cut all the way through manoomin beds with outboards. The flock of 50 geese grew to 300 in five years, so that the rice was completely levelled. With the manoomin gone, space was opened up for lily pads were able to thrive. They grew so thick, that now people cannot even paddle a canoe through it. Jeff reiterates that it would be better for people to leave the manoomin alone, as the lily pads are now an even bigger problem (Beaver 2024).

Jeff further suggests that communities do lake bottom tests and see what the soil is like. People should ensure it is not just stagnant water, but that the water is also moving, and to look out for key plant indicators. Jeff suggests gathering the best seeds available and to do some sample tests where the community is considering seeding. Try just a quarter of a bag in various locations until a good spot is found. If some manoomin plants come up, the community will know it is going to work there. "Don't get discouraged!" Jeff said, with a smile. From his experience, if it does not grow in the first couple of years, just keep looking, because the right conditions have to come along – much of this is outside of human control. Give it some time and be patient.

Jeff and the community of Alderville have been watching manoomin come back steadily. While it is clear that his efforts have helped, he credits this also to things that are not able to be explained, a "mystery of life" (Beaver 2024). Some seeds have been laying underwater for a while. As well, since more people are harvesting, more rice is growing back. While using traditional harvesting techniques about 90% of what you knock off the stalk goes back into the lake. One of 10 or 20 seeds actually produces another plant, and the rest are lying dormant, waiting for the right time. To continue this growth rate, at this time, Jeff encourages local harvesters to collect one bag, and throw another back into the water. Jeff's future goal is to plant two bays near Sugar Island, where communities historically processed manoomin during harvesting season, adding up to 80-100 acres in each one.

Jeff believes revitalizing manoomin is the responsibility of Anishinaabe communities. Art Beaver cites Paul Bourgeois from Trent University and the prophecies of the reappearance of wild rice in Rice Lake: "The prophecies say that when the rice appears in the lake so too will the traditions regain their strength" (Beaver 1999:81). Dave Mowat (Former Chief of Alderville) is quoted in a 2015 newspaper article as saying "I am steadfast in saying this is our rice and we are the people who look after it and we are going to keep harvesting it until the end of time" (Kapyrka 2015). Alderville's work on manoomin revitalizing, led by Jeff Beaver, will ensure this happens. This very brief overview prepared for this report is shared with the goal of encouraging other communities to continue their efforts. It is possible to rebuild this relationship, as after years of loss, manoomin is resurging. Manoomin and Michi-Saagig Anishinaabe have a deep relationship which is integral to this revitalization and resurgence process. Jeff and I are working on other pieces which highlight the importance of relationality in manoomin caretaking, which will be shared when ready.

Analysis of Research Strengths and Gaps

Indigenous community members and researchers found research strengths in these areas:

- We learned that there are many more Indigenous individuals, communities or small companies working on harvesting and/or selling manomin in Ontario, than we had surmised, such as:
    - Alderville First Nation, Jeff Beaver, Alderville Black Oak Savanna
    - Black Duck Wild Rice, James Whetung of Curve Lake First Nation - https://www.blackduckwildrice.net
    - Wikwemkoong Unceded Nation – working near Manitou Island, https://www.cbc.ca/news/canada/sudbury/wikwemikong-residents-restart-traditional-wild-rice-harvest-1.2777957; plus cultural experience tours at https://wikytours.com/daily-cultural-experiences/
    - Wildly Canadian Wild Rice, Thunder Bay - https://www.wildlycanadian.com/collections/canadian-wild-rice-blends

    - Anishinaabe Wild Rice Experience, Rhonda LeClair – Nolalu - https://northernontario.travel/indigenous/anishinaabe-wild-rice-experience
    - Canadian Pure Wild Rice, Wabigoon - https://agritech-north.ca/products/canadian-pure-wild-rice-premium-long-grain-whole-454g?srsltid=AfmBOoocj99Bx764TXTxEtrenXakaz86hisQh64z0lpxdHyhcGZQ5erC
    - Flying Wild Rice Co., Dryden - https://agritech-north.ca/products/wild-rice-indigenous
- The researchers had already established longstanding relationships with Indigenous community members, so they were able to work together with them in an appropriate and ethical way. This enabled people to set up brief field trips to further the knowledge synthesis objectives, whereas there would not be time to develop relationships with people during the one-year term of this grant.
- Our in-person learning with Lac Seul First Nation members and Alderville First Nation members helped us to contextualize the history in their areas, including the OMNR licensing and current situation.
- There is an ease of accessing primary sources, secondary sources, published historical references, and even films about manomin because many are now available easily if one has access to a computer (e.g., Canadiana, Internet Archive, Canadian Government documents. Although we do note that university researchers have easier access to university library collections than our Indigenous colleagues or the general public, who sometimes have lesser internet access.
- We learned that some people were struggling about where to obtain the correct green seed in order to plant new or revitalize areas that had previously supported manomin.

Gaps

After completing the knowledge synthesis about manomin in Ontario, there were a few gaps in information that we learned. These include:

- It was difficult to ascertain details of policy development because some OMNR data were not publicly available.
- What were the motives behind the destruction of manomin beds and other Indigenous foods? Were they purely disregarded or were there more sinister motives?
- What are some of the diverse cultural relationships with manomin? (Both of the communities we are working with are Anishinaabe, but we recognize that many other cultures engage with manomin).
- Are there other examples of manomin grains, phytoliths in residues, or other evidence in archaeological contexts that have not been published from other parts of Ontario? What are the earliest examples of manomin evidence in Ontario?
- What is the history of manomin co-ops and other Indigenous commercialization of the crop?
- What are the different avenues for revitalizing the relationship with manomin that Indigenous communities are seeking today? Cultural, commercial, ecological etc.

Implications for Policy, Practice or Research

This review of research on manomin in Ontario is linked theoretically to views of landscape as places we construct both in our imaginations and our actions (Ingold 2000). It raises questions such as ‘what are Ontario’s shallow waterways good for?’ Imagining and creating recreational

areas, hydro-electric reservoirs or food producing manomin beds illustrate quite divergent perspectives for different people.
This project also links to discussions about the cultural understandings of plants, plant geographies and plant politics (Lawrence 2022; Sandilands 2013). Discussions of animal rights for example, have prompted some people to become vegetarian or vegan. Increasing our understandings of plants, in particular food plants, opens new avenues of understanding and respect for these organisms that are so essential to life that are so embedded in Traditional Anishinaabeg viewpoints. Learning about this cultural embeddedness opens discussions about food sovereignty and ownership and use rights.

Conclusion

After an exhaustive search of the literature around manomin-human relations in Ontario and adjacent areas, the research team has created a list of references for Ontario. This report is the first overview of manomin and human relations for the province, providing perspectives from archaeology, ethnohistory, ethnology, history, and recent/modern times. We have also identified some knowledge gaps while reviewing these sources. Parallel to creating this knowledge synthesis, we were able to work with colleagues from Alderville and Lac Seul First Nation to address other issues (not in the literature per se) with manomin-human relations in Ontario, due to our established relationships with individuals. We are grateful to have learned so much from working together with Indigenous Knowledge Keepers in the two areas of Ontario.

From these community perspectives, we learned that

- Indigenous communities need a seat on water management boards and planning units to give a voice to manomin and start to include it in management plans.
- Treaty Rights need to be upheld and Indigenous people must be able to harvest manomin without asking the government for permission.

Future Areas of Research

The research team developed the following ideas for future areas of research:

- Legal research into ownership of plants
- Disruption of Indigenous food systems
- Restoration activities and implications
- Environmental role of manomin in combatting climate change, invasive species and pollution
- Cultural diversity around the relationship with manomin
- Further research about Precontact period archaeology associated with manomin and ancient people whether predictive modelling, residue analysis, or other options

Knowledge Mobilization Activities

The following research outputs have or will be completed:

- A peer-reviewed Evidence Brief about this project will be added to the SSHRC website.
- An academic publication will address the knowledge synthesis and gap analysis.
- Other academic papers will expand on the two community profiles and will be co-authored with the communities if they wish.
- Other academic papers about manomin in archaeological contexts are in preparation:

    - Taylor-Hollings, J. (2025, in prep.). An Update about Sandy Lake Ware/Psinomani Culture: 60 Years after Cooper and Johnson. *American Antiquity*
    - Meyer, David, Jill Taylor-Hollings, Peggy McKeand, and Michael Forsman. (2025, in prep.). Sandy Lake Ware in the Saskatchewan Boreal Forest. *Saskatchewan Archaeology*.
- The final film for the Lac Seul case study is available here: https://www.youtube.com/watch?v=MXgQm9h-qmE
- The Alderville film was not complete at the time of submission, but please contact the authors for a link
- Community-specific reports and presentations will also be created in partnership with the communities.
- The team will participate in the virtual Knowledge Mobilization online forum hosted by SSHRC in early 2025.
- A presentation on this project will be made during the Association of American Geographers conference in Detroit in March 2025

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APPENDIX: ADDITIONAL REFERENCES

During the course of this SSHRC Knowledge Synthesis Grant project, the team put together additional references about manomin and related topics that were not referenced in the report. This represents an additional comprehensive list about manomin sources for people to use.

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